



**MEDER**  
electronic

*Products for  
Tomorrow...*

# SHORTFORM CATALOG

**Reed Relays** · **Reed Sensors** · **Reed Switches**

[www.meder.com](http://www.meder.com)

## How to Use This Selection Guide

The information provided within this Short Form Catalog gives a general overview of MEDER electronic's Standard Reed Products and their specifications. The products included here, however, represent only a small portion of our complete product line.

MEDER also offers customer specific products produced to meet special requirements, including wire and cable terminations. Once you've found a product that suits your needs, please contact one of our authorized sales representatives for complete information. To request a complete MEDER product Data Book catalog, visit our website [www.meder.com](http://www.meder.com) for the most up-to-date product information and for further product specifications.

MEDER has engineers in strategic locations internationally to assist you with any application of our Reed Technology. If a standard product doesn't fully meet your requirements, please consult our applications department to explore how a MEDER product can be adapted to your specific use. Thank you for your interest in MEDER electronic's products. Please let us know how we can assist you with your specific product requirements.

## How to Order

Ordering products from MEDER electronic is easy and convenient! To place an order by telephone, call any of our authorized sales representatives or distributors found in the "Contact us" list on our website at [www.meder.com](http://www.meder.com). E-Mail orders are also welcomed via our website using the order form found on the "Contact us" page.

## Company Profile

MEDER electronic AG, the parent company, was founded by Bernhard Meder in 1981 in Singen, Germany. A financially strong company, all expansion and new product development has taken place through internal funding. MEDER's core competency depends on our strong engineering, our technology and Reed Switch driven product base, our customer-specific product development, our strong marketing and our modern, mechanized, high quality, reliable manufacturing facilities. MEDER has factories and sales offices worldwide. The MEDER group consistently grows financially and technologically with products driven by all major market segments including Industrial, Telecommunications, Test-and-Measurement, Security, Automotive and Medical.

## Vision Statement

MEDER electronic is a privately owned, profitable, innovative leader in the worldwide Reed Technology Market. The company produces a wide range of Reed Relays, Reed Sensors and Reed Switches for many applications. Years of experience in developing products utilizing Reed Technology, together with the technical knowledge and expertise of its employees, ensure the delivery of reliable, quality products with outstanding customer service. MEDER offers a complete line of standard products and is quick to develop specific solutions catering to customer needs and their new applications.

## Quality and Reliability

MEDER electronic is committed to delivering perfect products every time in order to meet the short and long term goals of our customers' applications. MEDER does this through the implementation of a Total Quality Management (TQM) program at all of its facilities. The TQM approach involves a conscientious team that will assure that all products comply with our customers' requirements. A Statistical Process Control (SPC) program has been added to our manufacturing where data collection and specification monitoring are critical. Many of our products are also UL, CSA, ATEX, VDE or EN60950 certified. All MEDER electronic factories are DIN EN ISO 9001:2008 and some TS16949:2009 and DIN EN ISO 14001:2005 certified.

## Notes

MEDER electronic may make improvements and / or changes in our products, our technical specifications or our product promotions described in this publication at any time without notice.

## Tolerances

The tolerances on overall package dimensions are  $\pm 0.25$  mm [ $\pm 0.010$  inch]. Pin to pin dimensions are  $\pm 0.1$  mm [ $\pm 0.005$  inch] unless otherwise specified.

## Mini-Glossary

Form A = normally open contact (N. O.)

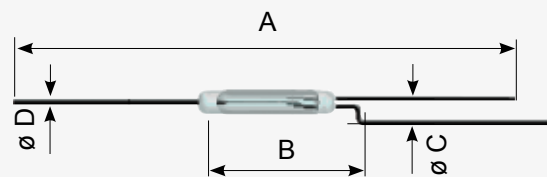
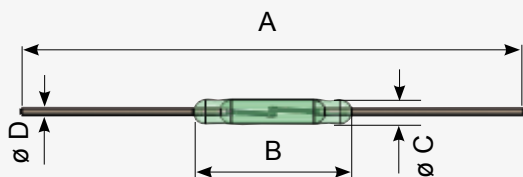
Form B = normally closed contact (N.C.)

Form C = change over contact (S.P.D.T.)

Form E = latching / bistable

AT = Ampere Turns; Parameter that describes magnetic sensitivity.

For a complete glossary, visit our website: [www.meder.com](http://www.meder.com)

**REED SWITCHES**


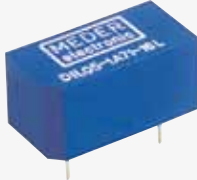
| SWITCH                         | KSK-1A04                                                                 | KSK-1A35-...                                                                    | KSK-1A35/1                                                                      | KSK-1A41-...                                                            | KSK-1A46-...                                                          |
|--------------------------------|--------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------|
| <b>Dimensions in mm (inch)</b> | A - 30 (1.181)<br>B - 3.95 (0.156)<br>C - 1.5 (0.059)<br>D - 0.6 (0.024) | A - 34.5 (1.358)<br>B - 10.5 (0.413)<br>C - 2.1 (0.083)<br>D - 1.2 (0.047) flat | A - 34.5 (1.358)<br>B - 10.5 (0.413)<br>C - 2.1 (0.083)<br>D - 1.2 (0.047) flat | A - 56.7 (2.232)<br>B - 14 (0.551)<br>C - 2.2 (0.087)<br>D - 0.5 (0.02) | A - 44.1 (1.736)<br>B - 12 (0.472)<br>C - 2 (0.079)<br>D - 0.5 (0.02) |
| <b>Specifications</b>          |                                                                          | *                                                                               | *                                                                               |                                                                         | *                                                                     |
| Contact Form                   | 1A                                                                       | 1A                                                                              | 1A                                                                              | 1A                                                                      | 1A                                                                    |
| Rated Power (W)                | 1                                                                        | 20                                                                              | 10                                                                              | 16                                                                      | 10                                                                    |
| Switching Voltage (VDC)        | 6                                                                        | 200                                                                             | 350                                                                             | 200                                                                     | 200                                                                   |
| Switching Current (A)          | 0.3                                                                      | 1.0                                                                             | 1.25                                                                            | 0.5                                                                     | 0.5                                                                   |

| SWITCH                         | KSK-1A52-...                                                              | KSK-1A53-...                                                             | KSK-1A54-...                                                               | KSK-1A55-...                                                             | KSK-1A66-...                                                            |
|--------------------------------|---------------------------------------------------------------------------|--------------------------------------------------------------------------|----------------------------------------------------------------------------|--------------------------------------------------------------------------|-------------------------------------------------------------------------|
| <b>Dimensions in mm (inch)</b> | A - 55.2 (2.173)<br>B - 21 (0.827)<br>C - 2.75 (0.108)<br>D - 0.6 (0.024) | A - 55 (2.165)<br>B - 20.5 (0.807)<br>C - 2.8 (0.110)<br>D - 0.6 (0.024) | A - 81.6 (3.213)<br>B - 53.4 (2.102)<br>C - 5.4 (0.213)<br>D - 1.3 (0.051) | A - 43.9 (1.728)<br>B - 16.5 (0.65)<br>C - 2.8 (0.11)<br>D - 0.6 (0.024) | A - 44.1 (1.736)<br>B - 14 (0.551)<br>C - 2.2 (0.087)<br>D - 0.5 (0.02) |
| <b>Specifications</b>          |                                                                           |                                                                          |                                                                            |                                                                          | *                                                                       |
| Contact Form                   | 1A                                                                        | 1A                                                                       | 1A                                                                         | 1A                                                                       | 1A                                                                      |
| Rated Power (W)                | 50                                                                        | 10                                                                       | 25                                                                         | 50                                                                       | 10                                                                      |
| Switching Voltage (VDC)        | 350                                                                       | 220                                                                      | 500                                                                        | 200                                                                      | 200                                                                     |
| Switching Current (A)          | 0.7                                                                       | 1.0                                                                      | 1.5                                                                        | 0.5                                                                      | 0.5                                                                     |

| SWITCH                         | KSK-1A69-...                                                                     | KSK-1A76/2                                                                 | KSK-1A80-...                                                            | KSK-1A83-...                                                                     | KSK-1A85-...                                                              |
|--------------------------------|----------------------------------------------------------------------------------|----------------------------------------------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| <b>Dimensions in mm (inch)</b> | A - 81.6 (3.213)<br>B - 53.4 (2.102)<br>C - 5.4 (0.213)<br>D - 2.49 (0.098) flat | A - 83.4 (3.283)<br>B - 50.8 (1.988)<br>C - 5.2 (0.205)<br>D - 2.5 (0.098) | A - 35.6 (1.402)<br>B - 7 (0.276)<br>C - 1.8 (0.071)<br>D - 0.3 (0.012) | A - 81.6 (3.213)<br>B - 53.4 (2.102)<br>C - 5.4 (0.213)<br>D - 2.49 (0.098) flat | A - 55.5 (2.185)<br>B - 21 (0.827)<br>C - 2.75 (0.108)<br>D - 0.6 (0.024) |
| <b>Specifications</b>          |                                                                                  |                                                                            | *                                                                       |                                                                                  |                                                                           |
| Contact Form                   | 1A                                                                               | 1A                                                                         | 1A                                                                      | 1A                                                                               | 1A                                                                        |
| Rated Power (W)                | 50                                                                               | 120                                                                        | 10                                                                      | 50                                                                               | 100                                                                       |
| Switching Voltage (VDC)        | 10 k                                                                             | 300                                                                        | 170                                                                     | 7500                                                                             | 1000                                                                      |
| Switching Current (A)          | 3.0                                                                              | 3.0                                                                        | 0.25                                                                    | 3.0                                                                              | 1.0                                                                       |

| SWITCH                         | KSK-1A87-...                                                           | KSK-1C90U-...                                                          | KSK-1C90F-...                                                          | * Most used<br>** Straight leads<br>*** NC dog leg bend |
|--------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------|---------------------------------------------------------|
| <b>Dimensions in mm (inch)</b> | A - 35.5 (1.398)<br>B - 10 (0.394)<br>C - 2 (0.079)<br>D - 0.4 (0.016) | A - 56.1 (2.209)<br>B - 14 (0.551)<br>C - 2.54 (0.1)<br>D - 0.5 (0.02) | A - 54.5 (2.146)<br>B - 14 (0.551)<br>C - 2.54 (0.1)<br>D - 0.5 (0.02) |                                                         |
| <b>Specifications</b>          | *                                                                      | **                                                                     | ***                                                                    |                                                         |
| Contact Form                   | 1A                                                                     | 1C                                                                     | 1C                                                                     |                                                         |
| Rated Power (W)                | 10                                                                     | 10                                                                     | 10                                                                     |                                                         |
| Switching Voltage (VDC)        | 200                                                                    | 175                                                                    | 175                                                                    |                                                         |
| Switching Current (A)          | 0.5                                                                    | 1.0                                                                    | 1.0                                                                    |                                                         |

## REED RELAYS

| Mounting Form                | Standard / General-purpose Relays                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                            |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                              |                                                                                                                                                                                                            |                                                                                                                                                                                                                      |                                                                                                                                                                                                                             |                                                                                                                                         |
| Series                       | BE                                                                                                                                                                                                                                                                                          | CRR                                                                                                                                                                                                                                                                                                   | DIL                                                                                                                                                                                                                                                                                                           | DIP                                                                                                                                                                                                                        |
| Description                  | All Purpose Reed Relay                                                                                                                                                                                                                                                                      | SPST Miniature Reed Relay                                                                                                                                                                                                                                                                             | Sealed DIL Reed Relay with up to 4.25 kVDC Break-down Voltage Option                                                                                                                                                                                                                                          | Molded DIP Reed Relay                                                                                                                                                                                                      |
| Dimensions in mm (inch)      | L - 33 (1.299)<br>W - 10 - 15.3<br>(0.394-0.602)<br>H - 10 (0.394)                                                                                                                                                                                                                          | L - 8.6 (0.339)<br>W - 4.4 (0.173)<br>H - 3.4 (0.134) (1A)<br>H - 3.9 (1.54) (1B, w. BGA)                                                                                                                                                                                                             | L - 20.1 (0.791)<br>W - 10.2 (0.402)<br>H - 10.2 (0.402)                                                                                                                                                                                                                                                      | L - 19.3 (0.76)<br>W - 6.4 (0.252)<br>H - 5.1 (0.201) (1A)<br>H - 7.5 (2.95) (1B, 1C, 2A)                                                                                                                                  |
| Features                     | <ul style="list-style-type: none"> <li>- Up to 5 Form A</li> <li>1 - 2 Form B</li> <li>1 - 2 Form C</li> <li>1 - 2 Form E</li> <li>- Metal or plastic case</li> <li>- Several pin out options</li> <li>- High insulation version available</li> <li>- Latching version available</li> </ul> | <ul style="list-style-type: none"> <li>- Ceramic / thermoset molded package</li> <li>- Surface mount design</li> <li>- Internal magnetic shield</li> <li>- Insulation resistance typical <math>10^{14}</math> ohms</li> <li>- 3 Volt coil option available</li> <li>- With and without BGA</li> </ul> | <ul style="list-style-type: none"> <li>- Compatible with DIL socket</li> <li>- Coil resistance up to 11 kOhm</li> <li>- 4.25 kVDC breakdown voltage available</li> <li>- Magnetic shield available</li> <li>- Diode Option available</li> <li>- Line sensing relay with &lt;15mA operating current</li> </ul> | <ul style="list-style-type: none"> <li>- Standard pin configurations</li> <li>- Versions with diode available</li> <li>- IC-pin compatible</li> <li>- TTL drive possible</li> <li>- 4.25 kVDC breakdown voltage</li> </ul> |
| Approval                     |                                                                                                                                                                                                                                                                                             | UL                                                                                                                                                                                                                                                                                                    | UL                                                                                                                                                                                                                                                                                                            | UL                                                                                                                                                                                                                         |
| Applications                 | <ul style="list-style-type: none"> <li>- Telecommunication</li> <li>- Medical equipment</li> <li>- Test and measurement</li> <li>- General applications</li> <li>- Industrial</li> </ul>                                                                                                    | <ul style="list-style-type: none"> <li>- Test and measurement</li> <li>- Medical equipment</li> <li>- Telecommunications</li> <li>- ATE systems</li> </ul>                                                                                                                                            | <ul style="list-style-type: none"> <li>- Ideal for many battery driven systems</li> <li>- Telecommunications</li> <li>- Industrial</li> <li>- Test and measurement</li> </ul>                                                                                                                                 | <ul style="list-style-type: none"> <li>- Test &amp; Measurement</li> <li>- Telecommunications</li> <li>- Security</li> </ul>                                                                                               |
| Specifications               |                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                            |
| Coil Voltage (VDC)           | 5, 12, 24                                                                                                                                                                                                                                                                                   | 3, 5                                                                                                                                                                                                                                                                                                  | 5, 12, 24                                                                                                                                                                                                                                                                                                     | 5, 12, 15, 24                                                                                                                                                                                                              |
| Coil Resistance (Ohm)        | 500 - 8000                                                                                                                                                                                                                                                                                  | 70 - 150                                                                                                                                                                                                                                                                                              | 500 - 10000                                                                                                                                                                                                                                                                                                   | 500 - 2000                                                                                                                                                                                                                 |
| Contact Form                 | 1 or 2 (A,B,C,E) 3A, 4A, 5A                                                                                                                                                                                                                                                                 | 1A, 1B                                                                                                                                                                                                                                                                                                | 1A, 1B, 1C, 2A, 2C, 3A, 4A                                                                                                                                                                                                                                                                                    | 1A, 1B, 1C, 2A                                                                                                                                                                                                             |
| Rated Power max. (W)         | 100                                                                                                                                                                                                                                                                                         | 10                                                                                                                                                                                                                                                                                                    | 15                                                                                                                                                                                                                                                                                                            | 15                                                                                                                                                                                                                         |
| Switching Voltage max. (VDC) | 1000                                                                                                                                                                                                                                                                                        | 170                                                                                                                                                                                                                                                                                                   | 500                                                                                                                                                                                                                                                                                                           | 500                                                                                                                                                                                                                        |
| Switching Current max. (A)   | 1.0                                                                                                                                                                                                                                                                                         | 0.5                                                                                                                                                                                                                                                                                                   | 1.0                                                                                                                                                                                                                                                                                                           | 1.0                                                                                                                                                                                                                        |
| Carry Current max. (A)       | 2.5                                                                                                                                                                                                                                                                                         | 0.5                                                                                                                                                                                                                                                                                                   | 1.25                                                                                                                                                                                                                                                                                                          | 1.25                                                                                                                                                                                                                       |
| Breakdown Voltage max. (VDC) | 4000                                                                                                                                                                                                                                                                                        | 210                                                                                                                                                                                                                                                                                                   | 1500                                                                                                                                                                                                                                                                                                          | 1500                                                                                                                                                                                                                       |

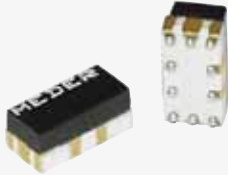
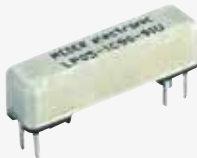
| Mounting Form                  | Standard / General-purpose Relays                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                      | Low Thermal Voltage                                                                                                                                                                                                             |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                |                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                 |                                                                                                   |                                                                                                                                              |
| <b>Series</b>                  | <b>MS</b>                                                                                                                                                                                                                                                                                                       | <b>SIL</b>                                                                                                                                                                                                                                                                                                                                       | <b>UMS</b>                                                                                                                                                                           | <b>BTS / BT</b>                                                                                                                                                                                                                 |
| <b>Description</b>             | MICRO SIL Reed Relay                                                                                                                                                                                                                                                                                            | Single-In-Line Reed Relay                                                                                                                                                                                                                                                                                                                        | Ultra Mini SIL Reed Relays                                                                                                                                                           | Low Thermal Voltage Reed Relay                                                                                                                                                                                                  |
| <b>Dimensions in mm (inch)</b> | L - 15.2 (0.598)<br>W - 3.9 (0.154)<br>H - 6.8 (0.268)                                                                                                                                                                                                                                                          | L - 19.8 (0.780)<br>W - 5.08 (0.2)<br>H - 7.8 (0.307)                                                                                                                                                                                                                                                                                            | L - 6.85 (0.27)<br>W - 3.6 (0.142)<br>H - 9.5 (0.374)                                                                                                                                | L - 30.48 (1.2) - 34.5 (1.358)<br>W - 12.7 (0.5) - 16.5 (0.65)<br>H - 10 (0.394) - 16.5 (0.65)                                                                                                                                  |
| <b>Features</b>                | <ul style="list-style-type: none"> <li>- New rugged molded design</li> <li>- Requires less than half of the mounting area of a standard SIL-Relay</li> <li>- Available with diode</li> <li>- Internal magnetic shield standard</li> <li>- High coil resistance option</li> <li>- 2A (N.O.) available</li> </ul> | <ul style="list-style-type: none"> <li>- High resistance coils of up to 2000 Ohm at 12V</li> <li>- Magnetic shield available</li> <li>- Breakdown voltage up to 4.25 kVDC</li> <li>- 6 pin with coax screen available</li> <li>- Diode Option available</li> <li>- Coaxial screen with 2 - 50 Ohm impedance</li> <li>- HF up to 1 GHz</li> </ul> | <ul style="list-style-type: none"> <li>- With internal diode</li> <li>- Rugged molded design</li> <li>- AECQ 200 certificate</li> <li>- Internal magnetic shield standard</li> </ul> | <ul style="list-style-type: none"> <li>- 2 Form A switches</li> <li>- Low offset voltages &lt;1μV</li> </ul>                                                                                                                    |
| <b>Approval</b>                | UL                                                                                                                                                                                                                                                                                                              | UL                                                                                                                                                                                                                                                                                                                                               | UL                                                                                                                                                                                   |                                                                                                                                                                                                                                 |
| <b>Applications</b>            | <ul style="list-style-type: none"> <li>- ATE systems</li> <li>- Measurement equipment</li> <li>- Computer peripherals</li> <li>- Alarm systems</li> </ul>                                                                                                                                                       | <ul style="list-style-type: none"> <li>- ATE systems</li> <li>- Measurement equipment</li> <li>- Telecommunications</li> <li>- Security</li> <li>- Alarm systems</li> </ul>                                                                                                                                                                      | <ul style="list-style-type: none"> <li>- ATE systems</li> <li>- PCB Tester</li> <li>- Telecommunication</li> <li>- Test, measurement, &amp; control technology</li> </ul>            | <ul style="list-style-type: none"> <li>- Test, measurement, &amp; control technology</li> <li>- High precision measuring devices</li> <li>- Recorder input</li> <li>- Digital volt meter</li> <li>- Data Acquisition</li> </ul> |
| <b>Specifications</b>          |                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                      |                                                                                                                                                                                                                                 |
| Coil Voltage (VDC)             | 5, 12                                                                                                                                                                                                                                                                                                           | 3, 5, 12, 15, 24                                                                                                                                                                                                                                                                                                                                 | 5                                                                                                                                                                                    | 5, 12, 24                                                                                                                                                                                                                       |
| Coil Resistance (Ohm)          | 280 - 700                                                                                                                                                                                                                                                                                                       | 80 - 2000                                                                                                                                                                                                                                                                                                                                        | 400                                                                                                                                                                                  | 350 - 5000                                                                                                                                                                                                                      |
| Contact Form                   | 1A, 1B, 2A                                                                                                                                                                                                                                                                                                      | 1A, 1B, 1C                                                                                                                                                                                                                                                                                                                                       | 1A                                                                                                                                                                                   | 2A                                                                                                                                                                                                                              |
| Rated Power max. (W)           | 10                                                                                                                                                                                                                                                                                                              | 50                                                                                                                                                                                                                                                                                                                                               | 10                                                                                                                                                                                   | 100                                                                                                                                                                                                                             |
| Switching Voltage max. (VDC)   | 200                                                                                                                                                                                                                                                                                                             | 500                                                                                                                                                                                                                                                                                                                                              | 170                                                                                                                                                                                  | 1000                                                                                                                                                                                                                            |
| Switching Current max. (A)     | 0.5                                                                                                                                                                                                                                                                                                             | 2                                                                                                                                                                                                                                                                                                                                                | 0.5                                                                                                                                                                                  | 1                                                                                                                                                                                                                               |
| Carry Current max. (A)         | 1.0                                                                                                                                                                                                                                                                                                             | 2                                                                                                                                                                                                                                                                                                                                                | 1                                                                                                                                                                                    | 2.5                                                                                                                                                                                                                             |
| Breakdown Voltage max. (VDC)   | 225                                                                                                                                                                                                                                                                                                             | 1500                                                                                                                                                                                                                                                                                                                                             | 210                                                                                                                                                                                  | 1500                                                                                                                                                                                                                            |

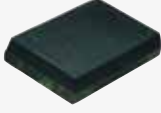
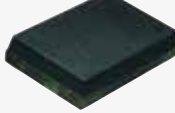
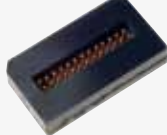
## REED RELAYS

| Mounting Form                | High Voltage                                                                                                                                                                                                                                                |                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                         |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                              |                                                                                                                                                                            |                                                                                                                              |                                                                                                                                                                              |                                                                                                                      |
| Series                       | H                                                                                                                                                                                                                                                           | HE                                                                                                                                                                                                            | HM                                                                                                                                                                                                                                                             | KT                                                                                                                                                                                                      |
| Description                  | High Voltage Reed Relay                                                                                                                                                                                                                                     | High Voltage Reed Relay for PCB Mounting                                                                                                                                                                      | High Voltage Reed Relay for PCB Mounting                                                                                                                                                                                                                       | Molded High Voltage Reed Relays                                                                                                                                                                         |
| Dimensions in mm (inch)      | L - 29.1 (1.146)<br>W - 18 (0.709)<br>H - 30 (1.181)                                                                                                                                                                                                        | L - 65 (2.559)<br>W - 14.5 (0.571)<br>H - 15.8 (0.622)                                                                                                                                                        | L - 68 (2.677)<br>W - 19.0 (0.748)<br>H - 19.8 (0.78)                                                                                                                                                                                                          | L - 30 (1.181)<br>W - 11 (0.433)<br>H - 9 (0.393)                                                                                                                                                       |
| Features                     | <ul style="list-style-type: none"> <li>- Form A &amp; Form B options</li> <li>- Switching up to 10 kVDC</li> <li>- <math>10^{13}</math> Ohm between coil and contact</li> <li>- Breakdown voltage up to 15 kVDC</li> <li>- Montage with screw M4</li> </ul> | <ul style="list-style-type: none"> <li>- Available with external contact cables</li> <li>- 1 Form A, 1 Form B, 2A</li> <li>- Special pin outs available</li> <li>- High leakage distance &gt;26 mm</li> </ul> | <ul style="list-style-type: none"> <li>- Available with external contact cables</li> <li>- 1 Form A, 1 Form B, 2A</li> <li>- Special pin outs available</li> <li>- High leakage distance &gt;32 mm</li> <li>- Bistable / Latching version available</li> </ul> | <ul style="list-style-type: none"> <li>- SMD or THT available</li> <li>- Internal diode</li> <li>- Rugged molded design</li> <li>- High isolation resistance</li> <li>- AECQ 200 certificate</li> </ul> |
| Approval                     |                                                                                                                                                                                                                                                             |                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                | UL                                                                                                                                                                                                      |
| Applications                 | <ul style="list-style-type: none"> <li>- All High Voltage Applications</li> <li>- RF surgery</li> <li>- Cable test systems</li> <li>- Heart defibrillator</li> </ul>                                                                                        | <ul style="list-style-type: none"> <li>- High voltage test sets</li> <li>- Cable testers</li> <li>- RF surgery</li> <li>- Heart defibrillator</li> </ul>                                                      | <ul style="list-style-type: none"> <li>- High voltage test sets</li> <li>- Cable testers</li> <li>- RF surgery</li> <li>- Heart defibrillator</li> </ul>                                                                                                       | <ul style="list-style-type: none"> <li>- High voltage systems</li> <li>- Solar applications</li> <li>- Isolation control</li> <li>- E-cars etc.</li> </ul>                                              |
| Specifications               |                                                                                                                                                                                                                                                             |                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                         |
| Coil Voltage (VDC)           | 12, 24                                                                                                                                                                                                                                                      | 5, 12, 24                                                                                                                                                                                                     | 5, 12, 24                                                                                                                                                                                                                                                      | 5, 12, 24                                                                                                                                                                                               |
| Coil Resistance (Ohm)        | 40 - 700                                                                                                                                                                                                                                                    | 50 - 1500                                                                                                                                                                                                     | 10 - 1650                                                                                                                                                                                                                                                      | 100 - 2700                                                                                                                                                                                              |
| Contact Form                 | 1A, 1B                                                                                                                                                                                                                                                      | 1A, 1B, 2A                                                                                                                                                                                                    | 1A, 1B, 1E                                                                                                                                                                                                                                                     | 1A                                                                                                                                                                                                      |
| Rated Power max. (W)         | 50                                                                                                                                                                                                                                                          | 250                                                                                                                                                                                                           | 100                                                                                                                                                                                                                                                            | 100                                                                                                                                                                                                     |
| Switching Voltage max. (VDC) | 10000                                                                                                                                                                                                                                                       | 10000                                                                                                                                                                                                         | 10000                                                                                                                                                                                                                                                          | 1000                                                                                                                                                                                                    |
| Switching Current max. (A)   | 3.0                                                                                                                                                                                                                                                         | 3.0                                                                                                                                                                                                           | 3.0                                                                                                                                                                                                                                                            | 1                                                                                                                                                                                                       |
| Carry Current max. (A)       | 5.0                                                                                                                                                                                                                                                         | 5.0                                                                                                                                                                                                           | 5.0                                                                                                                                                                                                                                                            | 2.5                                                                                                                                                                                                     |
| Breakdown Voltage max. (VDC) | 15000                                                                                                                                                                                                                                                       | 10000                                                                                                                                                                                                         | 15000                                                                                                                                                                                                                                                          | 5000                                                                                                                                                                                                    |

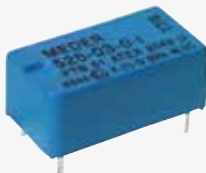
| Mounting Form                  | High Voltage                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                   | High Insulation                                                                                                                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                |                                                                                                                                                                                                                                                                            |                                                                                                                  |                                                                                                                                                |
| <b>Series</b>                  | <b>LI</b>                                                                                                                                                                                                                                                                                                                                                   | <b>SIL HV</b>                                                                                                                                                                                     | <b>HI</b>                                                                                                                                                                                                                         |
| <b>Description</b>             | High Voltage Reed Relay for PCB Mounting                                                                                                                                                                                                                                                                                                                    | High Voltage in Single-in-Line Design                                                                                                                                                             | High Insulation Reed Relay                                                                                                                                                                                                        |
| <b>Dimensions in mm (inch)</b> | L - 30 (1.181)<br>W - 10 (0.394)<br>H - 10.4 (0.409)                                                                                                                                                                                                                                                                                                        | L - 24 (0.945) - 29 (1.142)<br>W - 6.4 (0.252)<br>H - 8.9 (0.35)                                                                                                                                  | L - 28 (1.102)<br>W - 7.5 (0.295)<br>H - 7.9 (0.311)                                                                                                                                                                              |
| <b>Features</b>                | <ul style="list-style-type: none"> <li>- Smallest possible housing</li> <li>- Space saving package</li> <li>- High coil resistance available</li> <li>- Breakdown voltage up to 5 kVDC</li> <li>- Insulation resistance &gt; <math>10^{13}</math> Ohm</li> <li>- Insulation voltage coil to contact up to 7 kVDC</li> <li>- AECQ 200 certificate</li> </ul> | <ul style="list-style-type: none"> <li>- Small size</li> <li>- Insulation voltage coil to contact up to 4 kVDC</li> <li>- Insulation resistance &gt; <math>5 \times 10^{12}</math> Ohm</li> </ul> | <ul style="list-style-type: none"> <li>- High insulation</li> <li>- Up to <math>10^{13}</math> Ohm contact-to-contact</li> <li>- Up to <math>10^{14}</math> Ohm coil-to-contact</li> <li>- Very high leakage distances</li> </ul> |
| <b>Applications</b>            | <ul style="list-style-type: none"> <li>- High voltage test systems</li> <li>- Cable and in-circuit test equipment</li> <li>- Battery operated high voltage test equipment</li> <li>- Green technology</li> </ul>                                                                                                                                            | <ul style="list-style-type: none"> <li>- High voltage test systems</li> <li>- Cable and in-circuit test equipment</li> <li>- Battery operated high voltage test equipment</li> </ul>              | <ul style="list-style-type: none"> <li>- Measurement equipment</li> <li>- Test systems</li> <li>- Control systems</li> <li>- Medical equipment</li> </ul>                                                                         |
| <b>Specifications</b>          |                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                   |                                                                                                                                                                                                                                   |
| Coil Voltage (VDC)             | 5, 12, 24                                                                                                                                                                                                                                                                                                                                                   | 5, 12                                                                                                                                                                                             | 5, 12                                                                                                                                                                                                                             |
| Coil Resistance (Ohm)          | 200 - 3600                                                                                                                                                                                                                                                                                                                                                  | 150 - 220                                                                                                                                                                                         | 140 - 900                                                                                                                                                                                                                         |
| Contact Form                   | 1A                                                                                                                                                                                                                                                                                                                                                          | 1A                                                                                                                                                                                                | 1A                                                                                                                                                                                                                                |
| Rated Power max. (W)           | 100                                                                                                                                                                                                                                                                                                                                                         | 100                                                                                                                                                                                               | 100                                                                                                                                                                                                                               |
| Switching Voltage max. (VDC)   | 1000                                                                                                                                                                                                                                                                                                                                                        | 1000                                                                                                                                                                                              | 1000                                                                                                                                                                                                                              |
| Switching Current max. (A)     | 1.0                                                                                                                                                                                                                                                                                                                                                         | 1.0                                                                                                                                                                                               | 1.0                                                                                                                                                                                                                               |
| Carry Current max. (A)         | 2.5                                                                                                                                                                                                                                                                                                                                                         | 2.5                                                                                                                                                                                               | 2.5                                                                                                                                                                                                                               |
| Breakdown Voltage max. (VDC)   | 5000                                                                                                                                                                                                                                                                                                                                                        | 2000 - 4000                                                                                                                                                                                       | 3000                                                                                                                                                                                                                              |

## REED RELAYS

| Mounting Form                | High Frequency                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                 |                                                                                                                                                                                                   |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                              |                                                                                                                                                                                                                      |                                                                                                                                                                                      |                                                                                                                                                               |                                                                                                                |
| Series                       | CRF                                                                                                                                                                                                                                                                                                   | HF                                                                                                                                                                                                                                                                    | LP                                                                                                                                                                                                                                              | SIL HF                                                                                                                                                                                            |
| Description                  | 7 GHz<br>High Frequency Miniature<br>Reed Relay                                                                                                                                                                                                                                                       | High Frequency and High<br>Power Reed Relay                                                                                                                                                                                                                           | Miniature Reed Relay for<br>High Frequency Switching                                                                                                                                                                                            | High Frequency<br>Single-In-Line Reed Relay                                                                                                                                                       |
| Dimensions<br>in mm (inch)   | L - 8.6 (0.339)<br>W - 4.4 (0.173)<br>H - 3.4 (0.134) (1A)<br>H - 3.9 (0.154) (1B)                                                                                                                                                                                                                    | L - 53.7 (2.114)<br>W - 19 (0.748)<br>H - 20 (0.787)                                                                                                                                                                                                                  | L - 20.4 (0.803)<br>W - 5.8 (0.228)<br>H - 5.08 (0.2)                                                                                                                                                                                           | L - 19.8 (0.78)<br>W - 5.08 (0.2)<br>H - 7.8 (0.307)                                                                                                                                              |
| Features                     | <ul style="list-style-type: none"> <li>- Ceramic / thermoset molded package</li> <li>- Surface mount design</li> <li>- Internal magnetic shield</li> <li>- Insulation resistance typical <math>10^{14}</math> ohms</li> <li>- 3 Volt coil option available</li> <li>- With and without BGA</li> </ul> | <ul style="list-style-type: none"> <li>- Patented complete shielding of the relay coil</li> <li>- External electrostatic and magnetic shields</li> <li>- Special copper-plate switches</li> <li>- Suitable for carrying a high current, up to 5A at 30 MHz</li> </ul> | <ul style="list-style-type: none"> <li>- Available with 1 Form A or 1 Form C</li> <li>- Available with a coaxial shield</li> <li>- Capable of switching signals up to UHF-range</li> <li>- High reliability</li> <li>- Small housing</li> </ul> | <ul style="list-style-type: none"> <li>- Insulation voltage up to 4.25 kVDC</li> <li>- Coax screen for Z=50 Ohm Impedance</li> <li>- Switching frequency up to 1.5 GHz</li> </ul>                 |
| Approval                     | UL                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                 | UL                                                                                                                                                                                                |
| Applications                 | <ul style="list-style-type: none"> <li>- Test and measurement</li> <li>- Medical equipment</li> <li>- Telecommunications</li> <li>- High frequency</li> <li>- ATE systems</li> </ul>                                                                                                                  | <ul style="list-style-type: none"> <li>- Radio frequency technology</li> <li>- Antenna tuning units</li> <li>- Transmitters</li> </ul>                                                                                                                                | <ul style="list-style-type: none"> <li>- RF communications</li> <li>- Video switching</li> <li>- ATE systems</li> </ul>                                                                                                                         | <ul style="list-style-type: none"> <li>- ATE systems</li> <li>- High voltage cable tester</li> <li>- Telecommunications</li> <li>- Alarm systems</li> <li>- Measure and control system</li> </ul> |
| Specifications               |                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                 |                                                                                                                                                                                                   |
| Coil Voltage (VDC)           | 3, 5                                                                                                                                                                                                                                                                                                  | 12, 24                                                                                                                                                                                                                                                                | 5, 12                                                                                                                                                                                                                                           | 5, 12                                                                                                                                                                                             |
| Coil Resistance (Ohm)        | 70 - 150                                                                                                                                                                                                                                                                                              | 250 - 1000                                                                                                                                                                                                                                                            | 230 - 950                                                                                                                                                                                                                                       | 500 - 1000                                                                                                                                                                                        |
| Contact Form                 | 1A / 1B                                                                                                                                                                                                                                                                                               | 1A, 1B                                                                                                                                                                                                                                                                | 1A, 1C                                                                                                                                                                                                                                          | 1A                                                                                                                                                                                                |
| Rated Power max. (W)         | 10                                                                                                                                                                                                                                                                                                    | 25                                                                                                                                                                                                                                                                    | 10                                                                                                                                                                                                                                              | 15                                                                                                                                                                                                |
| Switching Voltage max. (VDC) | 170                                                                                                                                                                                                                                                                                                   | 500                                                                                                                                                                                                                                                                   | 200                                                                                                                                                                                                                                             | 200                                                                                                                                                                                               |
| Switching Current max. (A)   | 0.5                                                                                                                                                                                                                                                                                                   | 1.5 RF                                                                                                                                                                                                                                                                | 0.5                                                                                                                                                                                                                                             | 1.0                                                                                                                                                                                               |
| Carry Current max. (A)       | 0.5                                                                                                                                                                                                                                                                                                   | 5.0                                                                                                                                                                                                                                                                   | 1.0                                                                                                                                                                                                                                             | 1.25                                                                                                                                                                                              |
| Breakdown Voltage max. (VDC) | 210                                                                                                                                                                                                                                                                                                   | 9000                                                                                                                                                                                                                                                                  | 225                                                                                                                                                                                                                                             | 250                                                                                                                                                                                               |

| Mounting Form                | Relay Module                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                   |                                                                                    |                                                                                                                                                                                      |                                                                                                                                                                                                                             |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                              |                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |                                                                                                   |                                                                                                                                          |
| Series                       | RM05-4-BV10500                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | RM05-4A                                                                           | RM05-6A                                                                            | RM05-4-BV10641                                                                                                                                                                       | RM05-8A                                                                                                                                                                                                                     |
| Description                  | low-profile , 4 inputs, 4 outputs                                                                                                                                                                                                                                                                                                                                                                                                                                                    | low-profile , 4 inputs, 2 or 4 outputs                                            | low-profile 4 inputs, 1 output                                                     | plug-in 4 pole RF with connector 1.27mm (0.05) pitch male                                                                                                                            | with one serial digital 8 bit input channel                                                                                                                                                                                 |
| Dimensions in mm (inch)      | L - 13 (0.512)<br>W - 12 (0.472)<br>H - 3.5 (0.138)                                                                                                                                                                                                                                                                                                                                                                                                                                  | L - 16 (0.63)<br>W - 11.2 (0.441)<br>H - 4 (0.157)                                | L - 16 (0.63)<br>W - 20 (0.787)<br>H - 3.9 (0.154)                                 | L - 22.5 (0.886)<br>W - 12.7 (0.5)<br>H - 4.5 (0.177)                                                                                                                                | L - 38.5 (1.5)<br>W - 7.6 (0.299)<br>H - 15.3 (0.602)                                                                                                                                                                       |
| Features                     | <ul style="list-style-type: none"> <li>- FR-4/thermoset molded package</li> <li>- Leadless SMT design eliminates skewing and coplanarity issues</li> <li>- Minimum path length for RF</li> <li>- &lt;40ps rise times for switching fast pulses</li> <li>- Standard with BGA</li> <li>- Low profile</li> <li>- Internal magnetic shielding</li> <li>- Gold plated traces for high conductivity signal path</li> <li>- Insulation resistance typically 10<sup>14</sup> ohms</li> </ul> |                                                                                   |                                                                                    | <ul style="list-style-type: none"> <li>- Socket mounting on 1.27mm (0.05) pitch female for easy replacement</li> <li>- Minimum path length for RF</li> <li>- Flat package</li> </ul> | <ul style="list-style-type: none"> <li>- Reed Relay Module with integrated 8 bit shift register, 74 HC 595 or 74 HCT595</li> <li>- Saves PCB space</li> <li>- Saves wiring costs</li> <li>- Saves assembly costs</li> </ul> |
| Applications                 | <ul style="list-style-type: none"> <li>- Test and Measurement</li> <li>- Telecommunications</li> <li>- High frequency applications</li> </ul>                                                                                                                                                                                                                                                                                                                                        |                                                                                   |                                                                                    | <ul style="list-style-type: none"> <li>- Test and Measurement</li> <li>- Mixed Signal applications</li> <li>- RF applications</li> </ul>                                             | <ul style="list-style-type: none"> <li>- Test and Measurement</li> <li>- Telecommunications</li> </ul>                                                                                                                      |
| Specifications               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                   |                                                                                    |                                                                                                                                                                                      |                                                                                                                                                                                                                             |
| Coil Voltage (VDC)           | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 5                                                                                 | 5                                                                                  | 5                                                                                                                                                                                    | 5                                                                                                                                                                                                                           |
| Coil Resistance (Ohm)        | 185                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 185                                                                               | 185                                                                                | 185                                                                                                                                                                                  | 500                                                                                                                                                                                                                         |
| Contact Form                 | 4 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2A+2B, 4 A, 2B                                                                    | 6 A                                                                                | 4 A                                                                                                                                                                                  | 8 A (2C, Matrix)                                                                                                                                                                                                            |
| Rated Power max. (W)         | 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 10                                                                                | 10                                                                                 | 10                                                                                                                                                                                   | 10                                                                                                                                                                                                                          |
| Switching Voltage max. (VDC) | 170                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 170                                                                               | 170                                                                                | 100                                                                                                                                                                                  | 125                                                                                                                                                                                                                         |
| Switching Current max. (A)   | 0.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0.5                                                                               | 0.5                                                                                | 0.5                                                                                                                                                                                  | 1.0                                                                                                                                                                                                                         |
| Carry Current max. (A)       | 0.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0.5                                                                               | 0.5                                                                                | 0.5                                                                                                                                                                                  | 1.5                                                                                                                                                                                                                         |
| Breakdown Voltage max. (VDC) | 210                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 210                                                                               | 210                                                                                | 210                                                                                                                                                                                  | 200                                                                                                                                                                                                                         |

## OPTO-COUPLER

| Mounting Form                                                                      | Opoto-Coupler                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                    |
|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                             |                                                                                                                                                                                              |                                                                                                                                                 |
| Series                                                                             | 522-03-i                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 525- / 535                                                                                                                                                                                                                                   | 567-70-1-i                                                                                                                                                                                                                                                                     | 575                                                                                                                                                                                                                                |
| Description                                                                        | The potted Opto-Couplers are perfectly suitable for the galvanic separation of intrinsically safe and non- intrinsically safe circuits.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                | For direct triggering of AC voltage                                                                                                                                                                                                |
| Dimensions in mm (inch)                                                            | L - 16.5 (0.65)<br>W - 6.6 (0.6)<br>H - 9 (0.354)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | L - 19 (0.748)<br>W - 10 (0.394)<br>H - 8 (0.315)                                                                                                                                                                                            | L - 19 (0.748)<br>W - 10 (0.394)<br>H - 10 (0.394)                                                                                                                                                                                                                             | L - 19 (0.748)<br>W - 10 (0.394)<br>H - 8 (0.315)                                                                                                                                                                                  |
| Features                                                                           | <ul style="list-style-type: none"> <li>- Small dimensions</li> <li>- Up to 50 kHz Cut-off frequency</li> <li>- LED/Phototransistor output</li> <li>- Plastic casing potted with Polyurethane resin</li> <li>- 375V peak voltage</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>- Small dimensions</li> <li>- Plastic casing, potted with Polyurethane resin</li> <li>- 375 V peak voltage</li> <li>- LED/Phototransistor output</li> <li>- Up to 50 kHz cut-off-frequency</li> </ul> | <ul style="list-style-type: none"> <li>- Fast switching &lt;10µs</li> <li>- Small dimensions</li> <li>- Plastic casing, potted with Polyurethane resin</li> <li>- 375 V peak voltage</li> <li>- Up to 500 kHz cut-off-frequency</li> <li>- LED/Smith-Trigger output</li> </ul> | <ul style="list-style-type: none"> <li>- Small dimensions</li> <li>- Plastic casing, potted with Polyurethane resin</li> <li>- Supply voltage control</li> <li>- Input voltage 220VAC (option 110VAC, 380VAC available)</li> </ul> |
| Approval                                                                           | ATEX: PTB 01, 2043U                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ATEX: PTB 01, 2049U                                                                                                                                                                                                                          | ATEX: PTB 01, 2042U                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                    |
| Applications                                                                       | <ul style="list-style-type: none"> <li>- Test &amp; measurement</li> <li>- Control engineering in the mining industry, chemical industry and refineries</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                | <ul style="list-style-type: none"> <li>- Supply voltage control</li> </ul>                                                                                                                                                         |
|  | <p><b>EXPLOSIVE ATMOSPHERES PART APPROVAL</b></p> <p>Often times electronic equipment is required to carry out certain functions in potentially explosive atmospheres. To prevent potential igniting via a spark or arc in these environments, all components must be selected very carefully. Components meeting these requirement are generally referred to as intrinsically safe. These components must be tested such that they will not become an ignition point when subjected to short circuits or adjacent component failures. They must also switch to a defined state when subjected to overload conditions.</p> <p>Our 522-03-i, 525-03-i, 535-04-i, and 567-70-1-1 Opto-coupler series are all ideal for this environment. Please consult your nearest MEDER Sales office or visit our website <a href="http://www.meder.com">www.meder.com</a> for more details.</p> |                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                    |

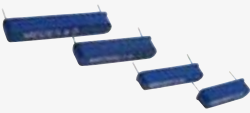
| Mounting Form                  | For SMD Mounting                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                               |                                                                                                                                                                                       |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                |                                                                                                                      |                                                                                                                                                                                                                               |                                                                                                                                                            |                                                                                                    |
| <b>Series</b>                  | <b>MK01</b>                                                                                                                                                                                           | <b>MK15; MK16</b>                                                                                                                                                                                                                                                                                              | <b>MK17</b>                                                                                                                                                                                                                                   | <b>MK22</b>                                                                                                                                                                           |
| <b>Description</b>             | Surface Mount Reed Sensor                                                                                                                                                                             | Surface Mount Reed Sensor                                                                                                                                                                                                                                                                                      | Surface Mount Reed Sensor                                                                                                                                                                                                                     | Surface Mount Reed Sensor                                                                                                                                                             |
| <b>Dimensions in mm (inch)</b> | L - 18.8 (0.74)<br>W - 3.7 (0.146)<br>H - 3.25 (0.128)                                                                                                                                                | MK15      MK16<br>L - 19.5 (0.77) 11.5(0.453)<br>W - 2.5 (0.098) 2.3 (0.091)<br>H - 2.5 (0.098) 2.3 (0.091)                                                                                                                                                                                                    | L - 8.5 (0.335)<br>W - 2.1 (0.83)<br>H - 2.1 (0.83)                                                                                                                                                                                           | L - 11.6 (0.457)<br>W - 2.7 (0.106)<br>H - 2.3 (0.091)                                                                                                                                |
| <b>Features</b>                | <ul style="list-style-type: none"> <li>- SMD mount design</li> <li>- Provided in standard 32 mm tape according to IEC 286 / part 3</li> <li>- Low profile package with a height of 3.25 mm</li> </ul> | <ul style="list-style-type: none"> <li>- Series offers two lead designs:<br/>1: Axial (Flat, straight leads for PCB slot mounting);<br/>2: Gull-wing (Flat, bent SMD leads)</li> <li>- Supplied tape &amp; reel according to IEC 286/part 3</li> <li>- Small dimensions</li> <li>- Low cost version</li> </ul> | <ul style="list-style-type: none"> <li>- Series offers three lead designs:<br/>1: Axial (Flat, straight leads for PCB slot mounting)<br/>2: Gull-wing (Flat, bent SMD leads)<br/>3: J-lead (SMD leads)</li> <li>- Small dimensions</li> </ul> | <ul style="list-style-type: none"> <li>- Series offers two lead designs:<br/>1: Axial (Flat, straight leads for PCB slot mounting)<br/>2: Gull-wing (Flat, bent SMD leads)</li> </ul> |
| <b>Approval</b>                | UL                                                                                                                                                                                                    | UL                                                                                                                                                                                                                                                                                                             | UL                                                                                                                                                                                                                                            | UL                                                                                                                                                                                    |
| <b>Packaging</b>               | Tape & Reel                                                                                                                                                                                           | Tape & Reel possible                                                                                                                                                                                                                                                                                           | Tape & Reel possible                                                                                                                                                                                                                          | Tape & Reel                                                                                                                                                                           |
| <b>Applications</b>            | <ul style="list-style-type: none"> <li>- Telecommunications (hook switch in mobile phones)</li> <li>- Electronic PCB's</li> <li>- Position detection</li> </ul>                                       | <ul style="list-style-type: none"> <li>- Electronic PCB's</li> <li>- Telecommunications</li> <li>- Switching element in microphones</li> <li>- Automotive applications</li> </ul>                                                                                                                              | <ul style="list-style-type: none"> <li>- Electronic PCB's</li> <li>- Telecommunications</li> <li>- Switching element in microphones</li> <li>- Automotive applications</li> </ul>                                                             | <ul style="list-style-type: none"> <li>- Telecommunication applications</li> <li>- Hook switch in mobile and hard wired phones</li> <li>- Switching element in microphones</li> </ul> |
| <b>Specifications</b>          |                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                               |                                                                                                                                                                                       |
| Contact Forms                  | 1A, 1B, 1C                                                                                                                                                                                            | 1A; 1B (MK15)                                                                                                                                                                                                                                                                                                  | 1A                                                                                                                                                                                                                                            | 1A                                                                                                                                                                                    |
| Rated Power max. (W)           | 10                                                                                                                                                                                                    | 10                                                                                                                                                                                                                                                                                                             | 10                                                                                                                                                                                                                                            | 20                                                                                                                                                                                    |
| Switching Voltage max. (VDC)   | 200                                                                                                                                                                                                   | 200                                                                                                                                                                                                                                                                                                            | 100                                                                                                                                                                                                                                           | 200                                                                                                                                                                                   |
| Switching Current max. (A)     | 0.5                                                                                                                                                                                                   | 0.5                                                                                                                                                                                                                                                                                                            | 0.5                                                                                                                                                                                                                                           | 1.0                                                                                                                                                                                   |
| Carry Current max. (A)         | 1.25                                                                                                                                                                                                  | 1.0                                                                                                                                                                                                                                                                                                            | 0.5                                                                                                                                                                                                                                           | 1.25                                                                                                                                                                                  |
| Avail. Operation Range (AT)    | 10 to 60                                                                                                                                                                                              | 10 to 60                                                                                                                                                                                                                                                                                                       | 10 to 40                                                                                                                                                                                                                                      | 10 to 30                                                                                                                                                                              |

Note: Suitable magnets can be found on Page 19.

## REED SENSORS

| Mounting Form                | For SMD Mounting                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                      | Pluggable                                                                                                                                                                                                  |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                              |                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                    |                                                                                                                         |
| Series                       | MK23                                                                                                                                                                                                                                                                                                                                        | MK24                                                                                                                                                                                                                                                                                              | MMS                                                                                                                                                                                                                                                                                                                                                                                  | MK09                                                                                                                                                                                                       |
| Description                  | Open Glass SMD Reed Sensor                                                                                                                                                                                                                                                                                                                  | Miniature SMD Reed Sensor                                                                                                                                                                                                                                                                         | Micro-Miniature SMD Reed Sensor                                                                                                                                                                                                                                                                                                                                                      | Reed Sensor in Hirschmann Connector, Fastening Screw M3                                                                                                                                                    |
| Dimensions in mm (inch)      | L - 7 (0.276) - 21 (0.827)<br>Ø - 1.8 (0.071) - 2.75 (0.108)<br>H - 1.9 (0.075) - 2.5 (0.098)                                                                                                                                                                                                                                               | L - 5 (0.197)<br>W - 2.2 (0.087)<br>H - 1.5 (0.59)                                                                                                                                                                                                                                                | L - 2.8 (0.11)<br>W - 2.05 (0.081)<br>H - 1.35 (0.053)                                                                                                                                                                                                                                                                                                                               | L - 30 (1.181)<br>W - 30 (1.181)<br>H - 10.4 (0.409)                                                                                                                                                       |
| Features                     | <ul style="list-style-type: none"> <li>- For low cost applications</li> <li>- Suitable for automatic Pick&amp;Place</li> <li>- Glass length from 7 mm to 21 mm</li> <li>- 4 different lead designs; flat/straight, flat/bent (Gull-Wing), flat/bent (J-Lead), and round/bent (inverse Gull)</li> <li>- Many various pad layouts.</li> </ul> | <ul style="list-style-type: none"> <li>- Three operate sensitivities available</li> <li>- Excellent for low power operations</li> <li>- No external power required for sensor operation</li> <li>- 3 different lead designs; flat/straight, flat/bent (Gull-Wing), flat/bent (J-Lead),</li> </ul> | <ul style="list-style-type: none"> <li>- Electrostatic sensitive</li> <li>- SMT reed sensors (SPST) in miniature size</li> <li>- Two lead designs: 1) flat, straight, 2) flat, bent (Gull-wing)</li> <li>- Designed for switching low power devices (max. 3 VDC)</li> <li>- 10<sup>9</sup> Ohm insulation resistance across the contacts</li> <li>- High shock resistance</li> </ul> | <ul style="list-style-type: none"> <li>- Magnetically operated Reed proximity switches</li> <li>- The molded surface is screwed on a plane surface in the direction of the operating magnet</li> </ul>     |
| Approval                     | UL                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                      | UL                                                                                                                                                                                                         |
| Packaging                    | Tape & Reel                                                                                                                                                                                                                                                                                                                                 | Tape & Reel                                                                                                                                                                                                                                                                                       | Tray                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                            |
| Applications                 | <ul style="list-style-type: none"> <li>- Automotive</li> <li>- Computer</li> <li>- Household appliances</li> <li>- Security</li> <li>- Medical equipment</li> <li>- Telecommunications</li> <li>- Test &amp; Measurement</li> </ul>                                                                                                         | <ul style="list-style-type: none"> <li>- Electronic PCB's</li> <li>- Telecommunication</li> <li>- Hook switch in mobile and hard wired phones</li> <li>- Switching element in microphones</li> <li>- Smoke detecting</li> </ul>                                                                   | <ul style="list-style-type: none"> <li>- Medical pacemakers and insulin pumps</li> <li>- Telecommunications</li> <li>- PDA, Cell Phones</li> <li>- CMOS gates and other low power signals switching</li> </ul>                                                                                                                                                                       | <ul style="list-style-type: none"> <li>- Air filter maintenance</li> <li>- Air conditioning &amp; clean room systems</li> <li>- Pneumatic &amp; hydraulic cylinders</li> <li>- Machine industry</li> </ul> |
| Specifications               |                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                            |
| Contact Forms                | 1A, 1C                                                                                                                                                                                                                                                                                                                                      | 1A, 1B                                                                                                                                                                                                                                                                                            | 1A                                                                                                                                                                                                                                                                                                                                                                                   | 1A, 1B, 1C                                                                                                                                                                                                 |
| Rated Power max. (W)         | 100                                                                                                                                                                                                                                                                                                                                         | 3                                                                                                                                                                                                                                                                                                 | 0.3 mW                                                                                                                                                                                                                                                                                                                                                                               | 100                                                                                                                                                                                                        |
| Switching Voltage max. (VDC) | 1000                                                                                                                                                                                                                                                                                                                                        | 30                                                                                                                                                                                                                                                                                                | 3                                                                                                                                                                                                                                                                                                                                                                                    | 1000                                                                                                                                                                                                       |
| Switching Current max. (A)   | 1.0                                                                                                                                                                                                                                                                                                                                         | 0.3                                                                                                                                                                                                                                                                                               | 100 µA                                                                                                                                                                                                                                                                                                                                                                               | 1.0                                                                                                                                                                                                        |
| Carry Current max. (A)       | 2.5                                                                                                                                                                                                                                                                                                                                         | 0.5                                                                                                                                                                                                                                                                                               | 100 µA                                                                                                                                                                                                                                                                                                                                                                               | 2.5                                                                                                                                                                                                        |
| Avail. Operation Range (AT)  | 10 to 60                                                                                                                                                                                                                                                                                                                                    | 5 to 20                                                                                                                                                                                                                                                                                           | 1.8 to 4.0 mT                                                                                                                                                                                                                                                                                                                                                                        | 10 to 60                                                                                                                                                                                                   |

Note: Suitable magnets can be found on Page 19.

| Mounting Form                | For PCB Mounting                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                  | Cylindrical                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                            |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                              |                                                                                                                                                  |                                                                                                                                                                                 |                                                                                                                                                                                              |                                                                                                                                                                         |
| Series                       | <b>MK02<br/>(PCB Version)</b>                                                                                                                                                                                                     | <b>MK06</b>                                                                                                                                                                                                                                                      | <b>MK03</b>                                                                                                                                                                                                                                                                     | <b>MK08</b>                                                                                                                                                                                                                                                |
| Description                  | Ferromagnetic Metal Detection Sensor for PCB mounting                                                                                                                                                                             | Through-hole Reed Sensors for PCB Mounting                                                                                                                                                                                                                       | Cylindrical Reed Sensors                                                                                                                                                                                                                                                        | Cylindrical Reed Sensors                                                                                                                                                                                                                                   |
| Dimensions in mm (inch)      | L - 24 (0.945)<br>W - 8.5 (0.335)<br>H - 7.7 (0.303)                                                                                                                                                                              | L - 12.06 - 22.32 (0.475 - 0.879)<br>W - 3.3 (0.13)<br>H - 3.3 - 4.2 (0.13 - 0.165)                                                                                                                                                                              | L - 25.5 (1.004)<br>Ø - 5.75 (0.226)                                                                                                                                                                                                                                            | L - 95.5 (3.76)<br>Ø - 21.5 (0.846)                                                                                                                                                                                                                        |
| Features                     | <ul style="list-style-type: none"> <li>- Sensor is activated by the presence of a ferromagnetic metal such as iron</li> <li>- Front operation</li> <li>- Also available as normal reed sensor with magnetic activation</li> </ul> | <ul style="list-style-type: none"> <li>- Form A, B, C and E (latching)</li> <li>- Switches for direct PCB mounting</li> <li>- Pull-in / drop-out is divided into several ranges</li> <li>- 2.54mm PCB pin spacing, available with different distances</li> </ul> | <ul style="list-style-type: none"> <li>- Different types of switches, cables, cable length and connections available</li> <li>- Ideal for ring type magnet on end-on actuation</li> <li>- Good ratio of price/performance</li> <li>- Different case colors available</li> </ul> | <ul style="list-style-type: none"> <li>- Oil-resistant cable</li> <li>- Operating temperature from - 40°C to +130°C</li> <li>- Six magnetic sensitivity ranges</li> <li>- Different cable lengths and plugs available</li> <li>- RoHS compliant</li> </ul> |
| Approval                     | UL available                                                                                                                                                                                                                      | UL available                                                                                                                                                                                                                                                     | UL available                                                                                                                                                                                                                                                                    | ATEX: KEMA 00, 1112                                                                                                                                                                                                                                        |
| Applications                 | <ul style="list-style-type: none"> <li>- Limit sensing</li> <li>- Position control</li> <li>- Control functions in plant &amp; utilities</li> <li>- Security applications</li> <li>- Fire protection doors</li> </ul>             | <ul style="list-style-type: none"> <li>- Telephone hook switch</li> <li>- Door switch in appliances</li> <li>- Limit switch for low-power signals</li> <li>- Elevator position indicators</li> </ul>                                                             | <ul style="list-style-type: none"> <li>- Position &amp; limit switch</li> <li>- Door &amp; window contact for security systems</li> <li>- Level sensor</li> </ul>                                                                                                               | <ul style="list-style-type: none"> <li>- For petro-chemical utilities</li> <li>- Flow-meter or tach sensor</li> <li>- Applicable in open air till -40°C</li> <li>- Suitable for all danger zones</li> </ul>                                                |
| Specifications               |                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                            |
| Contact Forms                | 1A                                                                                                                                                                                                                                | 1A, 1B, 1C, 1E                                                                                                                                                                                                                                                   | 1A, 1B, 1C                                                                                                                                                                                                                                                                      | 1A, 1B                                                                                                                                                                                                                                                     |
| Rated Power max. (W)         | 10                                                                                                                                                                                                                                | 10                                                                                                                                                                                                                                                               | 10                                                                                                                                                                                                                                                                              | 60                                                                                                                                                                                                                                                         |
| Switching Voltage max. (VDC) | 200                                                                                                                                                                                                                               | 170 - 200                                                                                                                                                                                                                                                        | 400                                                                                                                                                                                                                                                                             | 400                                                                                                                                                                                                                                                        |
| Switching Current max. (A)   | 1.25                                                                                                                                                                                                                              | 0.25 - 0.5                                                                                                                                                                                                                                                       | 0.5                                                                                                                                                                                                                                                                             | 1.0                                                                                                                                                                                                                                                        |
| Carry Current max. (A)       | 100 bis 300                                                                                                                                                                                                                       | 1.25                                                                                                                                                                                                                                                             | 1.25                                                                                                                                                                                                                                                                            | 2.5                                                                                                                                                                                                                                                        |
| Avail. Operation Range (AT)  | 4.5 to 15 (mm)                                                                                                                                                                                                                    | 10 to 60                                                                                                                                                                                                                                                         | 10 to 60                                                                                                                                                                                                                                                                        | 10 to 60                                                                                                                                                                                                                                                   |

Note: Suitable magnets can be found on Page 19.

## REED SENSORS

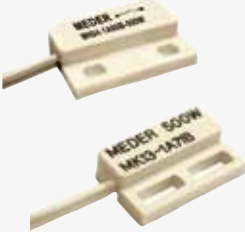
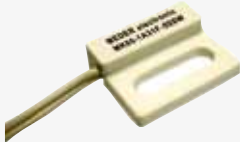
| Mounting Form                | Cylindrical                                                                                                                                                                                               |                                                                                                                                                                             |                                                                                                                                                                                   |                                                                                                                                                                                |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                              |                                                                                                                          |                                                                                            |                                                                                                 |                                                                                             |
| Series                       | MK14                                                                                                                                                                                                      | MK18                                                                                                                                                                        | MK20                                                                                                                                                                              | MK20/1                                                                                                                                                                         |
| Description                  | Cylindrical Reed Sensor                                                                                                                                                                                   | Cylindrical Reed Sensors                                                                                                                                                    | Cylindrical Reed Sensor                                                                                                                                                           | Cylindrical Reed Sensor                                                                                                                                                        |
| Dimensions in mm (inch)      | L - 25.5 (1.0)<br>Ø - 4 (0.16)                                                                                                                                                                            | L - 17 (0.669)<br>Ø - 5 (0.197)                                                                                                                                             | L - 7.5 (0.295)<br>Ø - 2.7 (0.106)                                                                                                                                                | L - 10 (0.393)<br>Ø - 3 (0.118)                                                                                                                                                |
| Features                     | <ul style="list-style-type: none"> <li>- Miniature module with 4mm diameter, fitted with interconnect cable</li> <li>- Different types of switches, connections, &amp; cable lengths available</li> </ul> | <ul style="list-style-type: none"> <li>- Small size</li> <li>- Other cables, connectors, and colors avail.</li> <li>- Flat surface indicates maximum sensitivity</li> </ul> | <ul style="list-style-type: none"> <li>- Smallest size</li> <li>- Other cables, connectors, and colors available</li> <li>- Flat surface indicates maximum sensitivity</li> </ul> | <ul style="list-style-type: none"> <li>- Small size</li> <li>- Other cables, connectors, and colors available</li> <li>- Flat surface indicates maximum sensitivity</li> </ul> |
| Approval                     | UL available                                                                                                                                                                                              | UL available                                                                                                                                                                | UL available                                                                                                                                                                      | UL available                                                                                                                                                                   |
| Applications                 | <ul style="list-style-type: none"> <li>- Position &amp; limit switch</li> <li>- End position sensing</li> <li>- Machinery safety &amp; control</li> </ul>                                                 | <ul style="list-style-type: none"> <li>- Position &amp; limit switch</li> <li>- End position sensing</li> <li>- Machinery safety &amp; control</li> </ul>                   | <ul style="list-style-type: none"> <li>- Position &amp; limit switch</li> <li>- End position sensing</li> <li>- Machinery safety &amp; control</li> </ul>                         | <ul style="list-style-type: none"> <li>- Position &amp; limit switch</li> <li>- End position sensing</li> <li>- Machinery safety &amp; control</li> </ul>                      |
| Specifications               |                                                                                                                                                                                                           |                                                                                                                                                                             |                                                                                                                                                                                   |                                                                                                                                                                                |
| Contact Forms                | 1A, 1B, 1C                                                                                                                                                                                                | 1A                                                                                                                                                                          | 1A                                                                                                                                                                                | 1A                                                                                                                                                                             |
| Rated Power max. (W)         | 10                                                                                                                                                                                                        | 10                                                                                                                                                                          | 3                                                                                                                                                                                 | 10                                                                                                                                                                             |
| Switching Voltage max. (VDC) | 400                                                                                                                                                                                                       | 200                                                                                                                                                                         | 30                                                                                                                                                                                | 30                                                                                                                                                                             |
| Switching Current max. (A)   | 0.5                                                                                                                                                                                                       | 0.5                                                                                                                                                                         | 0.25                                                                                                                                                                              | 0.25                                                                                                                                                                           |
| Carry Current max. (A)       | 1.0                                                                                                                                                                                                       | 1.0                                                                                                                                                                         | 0.5                                                                                                                                                                               | 0.5                                                                                                                                                                            |
| Avail. Operation Range (AT)  | 10 to 60                                                                                                                                                                                                  | 10 to 60                                                                                                                                                                    | 10 to 30                                                                                                                                                                          | 10 to 60                                                                                                                                                                       |

Note: Suitable magnets can be found on Page 19.

| Mounting Form                  | Threaded Cylindrical                                                                                                                                                                               |                                                                                                                                                                                                                      |                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                          |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                |                                                                                                                   |                                                                                                                                     |                                                                                                                                    |                                                                                                                                                                                                                                       |
| <b>Series</b>                  | <b>MK07</b>                                                                                                                                                                                        | <b>MK11<br/>Stainless Steel</b>                                                                                                                                                                                      | <b>MK11<br/>Plastics</b>                                                                                                                                                                                             | <b>MK11<br/>Brass</b>                                                                                                                                                                                                                                                                                                    |
| <b>Description</b>             | Cylindrical Reed Sensors with M8 thread                                                                                                                                                            | Reed Sensors with Screw Thread Enclosure                                                                                                                                                                             | Reed Sensors with Screw Thread Enclosure                                                                                                                                                                             | Reed Sensors with Screw Thread Enclosure                                                                                                                                                                                                                                                                                 |
| <b>Dimensions in mm (inch)</b> | L - 39.6 (1.559)<br>Ø - 6.6 (0.26)                                                                                                                                                                 | L - 25 (0.984)<br>Ø - M5 x 0.5                                                                                                                                                                                       | L - 38 (1.496)<br>Ø - M8 x 1.25                                                                                                                                                                                      | L - 38 (1.496)<br>Ø - M6 - M12                                                                                                                                                                                                                                                                                           |
| <b>Features</b>                | <ul style="list-style-type: none"> <li>- Should be screwed directly into a fixed surface</li> <li>- Series offers a selection of two-part magnetically operated reed proximity switches</li> </ul> | <ul style="list-style-type: none"> <li>- Threaded stainless steel housing with M5 thread for precise positioning</li> <li>- Different types of switches, connections, &amp; cable lengths available</li> </ul>       | <ul style="list-style-type: none"> <li>- Threaded plastic housing with M8 thread for precise positioning</li> <li>- Different types of switches, connections, &amp; cable lengths available</li> </ul>               | <ul style="list-style-type: none"> <li>- Threaded brass housing for precise positioning</li> <li>- High power switches available</li> <li>- Several thread types available</li> <li>- Different types of switches, connections, &amp; cable lengths available</li> <li>- Five operate sensitivities available</li> </ul> |
| <b>Approval</b>                | UL available                                                                                                                                                                                       | UL available                                                                                                                                                                                                         | UL available                                                                                                                                                                                                         | UL on request                                                                                                                                                                                                                                                                                                            |
| <b>Applications</b>            | <ul style="list-style-type: none"> <li>- Position &amp; limit switch</li> <li>- Level sensor</li> <li>- Position sensor</li> <li>- Elevator control</li> </ul>                                     | <ul style="list-style-type: none"> <li>- Position &amp; limit switch</li> <li>- End position sensing</li> <li>- Machinery safety &amp; control</li> <li>- Gate / door control</li> <li>- Elevator control</li> </ul> | <ul style="list-style-type: none"> <li>- Position &amp; limit switch</li> <li>- End position sensing</li> <li>- Machinery safety &amp; control</li> <li>- Gate / door control</li> <li>- Elevator control</li> </ul> | <ul style="list-style-type: none"> <li>- Piston end travel and position detection</li> <li>- End motion detection for linear drives</li> <li>- Machinery industry</li> </ul>                                                                                                                                             |
| <b>Specifications</b>          |                                                                                                                                                                                                    |                                                                                                                                                                                                                      |                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                          |
| Contact Forms                  | 1A, 1B, 1C                                                                                                                                                                                         | 1A, 1B, 1C                                                                                                                                                                                                           | 1A, 1B, 1C, 1E                                                                                                                                                                                                       | 1A, 1B, 1C, 1E                                                                                                                                                                                                                                                                                                           |
| Rated Power max. (W)           | 10                                                                                                                                                                                                 | 10                                                                                                                                                                                                                   | 100                                                                                                                                                                                                                  | 100                                                                                                                                                                                                                                                                                                                      |
| Switching Voltage max. (VDC)   | 200                                                                                                                                                                                                | 200                                                                                                                                                                                                                  | 1000                                                                                                                                                                                                                 | 1000                                                                                                                                                                                                                                                                                                                     |
| Switching Current max. (A)     | 0.5                                                                                                                                                                                                | 0.5                                                                                                                                                                                                                  | 1.0                                                                                                                                                                                                                  | 1.0                                                                                                                                                                                                                                                                                                                      |
| Carry Current max. (A)         | 1.5                                                                                                                                                                                                | 1.25                                                                                                                                                                                                                 | 2.5                                                                                                                                                                                                                  | 2.5                                                                                                                                                                                                                                                                                                                      |
| Avail. Operation Range (AT)    | 10 to 60                                                                                                                                                                                           | 10 to 60                                                                                                                                                                                                             | 10 to 60                                                                                                                                                                                                             | 10 to 60                                                                                                                                                                                                                                                                                                                 |

Note: Suitable magnets can be found on Page 19.

## REED SENSORS

| Mounting Form                | For Screw Fastening                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                       |                                                                                                                                                                                                                                            |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                              |                                                                                                                                                                               |                                                                                                                                                                                  |                                                                                                                                     |                                                                                                                                                         |
| Series                       | MK02                                                                                                                                                                                                                                                           | MK04<br>MK13                                                                                                                                                                                                                                                      | MK05                                                                                                                                                                                                                  | MK12                                                                                                                                                                                                                                       |
| Description                  | Ferromagnetic Metal Detection Sensors for fastening screw M3                                                                                                                                                                                                   | Reed Sensors for Fastening Screw M3                                                                                                                                                                                                                               | Reed Sensors with Slot, Fastening Screw M5                                                                                                                                                                            | Reed Sensors for Fastening Screw M4                                                                                                                                                                                                        |
| Dimensions in mm (inch)      | L - 32.4 - 46 (1.276 - 1.811)<br>W - 16.7 - 18.35 (0.6574 - 0.722)<br>H - 10 - 13 (0.394 - 0.512)                                                                                                                                                              | L - 23 (0.906)<br>W - 13.9 (0.547)<br>H - 5.9 (0.232)                                                                                                                                                                                                             | L - 23.2 (0.913)<br>W - 19.6 (0.772)<br>H - 5.9 (0.232)                                                                                                                                                               | L - 32 (1.26)<br>W - 14.9 (0.587)<br>H - 6.9 (0.272)                                                                                                                                                                                       |
| Features                     | <ul style="list-style-type: none"> <li>- Sensor is activated by the presence of a ferromagnetic metal such as iron</li> <li>- Front or above operation</li> <li>- UL: MK02U/xxU</li> </ul>                                                                     | <ul style="list-style-type: none"> <li>- Good ratio of price/performance</li> <li>- Designed for screw mounting</li> <li>- Choice of switch, termination &amp; cable length offered</li> <li>- Different case colors available</li> <li>- UL: MK04/13U</li> </ul> | <ul style="list-style-type: none"> <li>- Designed for screw mounting</li> <li>- Choice of switch, termination &amp; cable length offered</li> <li>- Contact Form A, B and C available</li> <li>- UL: MK05U</li> </ul> | <ul style="list-style-type: none"> <li>- Different types of switches, connections, &amp; cable lengths available</li> <li>- High power switching available</li> <li>- Contact Form A, B, C and E available</li> <li>- UL: MK12U</li> </ul> |
| Approval                     | UL available                                                                                                                                                                                                                                                   | UL available                                                                                                                                                                                                                                                      | UL available                                                                                                                                                                                                          | UL available                                                                                                                                                                                                                               |
| Applications                 | <ul style="list-style-type: none"> <li>- For limit sensing</li> <li>- Position control</li> <li>- Control functions in plant &amp; utilities</li> <li>- Security applications</li> <li>- Fire protection doors</li> <li>- Open / closed recognition</li> </ul> | <ul style="list-style-type: none"> <li>- Door &amp; window control</li> <li>- Position &amp; end switch</li> <li>- Level sensor (use with magnetic floats for water level detection)</li> </ul>                                                                   | <ul style="list-style-type: none"> <li>- Door &amp; window control</li> <li>- Position &amp; end switch</li> <li>- Level sensor (use with magnetic floats for water level detection)</li> </ul>                       | <ul style="list-style-type: none"> <li>- Position &amp; limit switch</li> <li>- End position sensing</li> <li>- Machinery safety &amp; control</li> </ul>                                                                                  |
| Specifications               |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                       |                                                                                                                                                                                                                                            |
| Contact Forms                | 1A, 1B, 1C                                                                                                                                                                                                                                                     | 1A, 1B, 1C                                                                                                                                                                                                                                                        | 1A, 1B, 1C                                                                                                                                                                                                            | 1A, 1B, 1C, 1E                                                                                                                                                                                                                             |
| Rated Power max. (W)         | 10                                                                                                                                                                                                                                                             | 10                                                                                                                                                                                                                                                                | 10                                                                                                                                                                                                                    | 100                                                                                                                                                                                                                                        |
| Switching Voltage max. (VDC) | 200                                                                                                                                                                                                                                                            | 400                                                                                                                                                                                                                                                               | 400                                                                                                                                                                                                                   | 1000                                                                                                                                                                                                                                       |
| Switching Current max. (A)   | 0.5                                                                                                                                                                                                                                                            | 0.5                                                                                                                                                                                                                                                               | 0.5                                                                                                                                                                                                                   | 1.0                                                                                                                                                                                                                                        |
| Carry Current max. (A)       | 1.25                                                                                                                                                                                                                                                           | 1.25                                                                                                                                                                                                                                                              | 1.25                                                                                                                                                                                                                  | 1.25                                                                                                                                                                                                                                       |
| Avail. Operation Range (AT)  | 4.5 to 15 (mm)                                                                                                                                                                                                                                                 | 10 to 60                                                                                                                                                                                                                                                          | 10 to 60                                                                                                                                                                                                              | 10 to 60                                                                                                                                                                                                                                   |

Note: Suitable magnets can be found on Page 19.

| Mounting Form                  | For Screw Fastening                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                               | For Front Panel                                                                                                                                                                                                                                                                                            |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                |                                                                                                                         |                                                                                                                                                                                                                             |                                                                                                                                                                                            |                                                                                                                                                                                                                         |
| <b>Series</b>                  | <b>MK21</b>                                                                                                                                                                                              | <b>MK26</b>                                                                                                                                                                                                                                                                                                  | <b>MK27</b>                                                                                                                                                                                                                                                                   | <b>MK25</b>                                                                                                                                                                                                                                                                                                |
| <b>Description</b>             | Reed Sensors for High Temperature, Fastening Screw M3                                                                                                                                                    | Reed Sensors Fastening Screw M3                                                                                                                                                                                                                                                                              | Magnetically actuated Reed Sensor for harsh environment                                                                                                                                                                                                                       | Push-button based on Reed Relay                                                                                                                                                                                                                                                                            |
| <b>Dimensions in mm (inch)</b> | L - 28.6 (1.126)<br>W - 19 (0.748)<br>H - 6.35 (0.25)                                                                                                                                                    | L - 32 (1.26)<br>W - 10 (0.394)<br>H - 6 (0.236)                                                                                                                                                                                                                                                             | L - 50 (1.969)<br>W - 20 (0.787)<br>H - 10 (0.394)                                                                                                                                                                                                                            | Ø - 40 (1.575)                                                                                                                                                                                                                                                                                             |
| <b>Features</b>                | <ul style="list-style-type: none"> <li>- Designed for high temperatures up to 160° C (molded version)</li> <li>- For use in extreme environments</li> <li>- Teflon wire leads</li> <li>- IP67</li> </ul> | <ul style="list-style-type: none"> <li>- Low-cost, high performance</li> <li>- Power switch available</li> <li>- Individual conductors or multi-conductor cable with round outer jacket available</li> <li>- Different casing colors</li> <li>- Diverse cables, plugs and cable lengths available</li> </ul> | <ul style="list-style-type: none"> <li>- Power switch available</li> <li>- High voltage versions upon request</li> <li>- Cable connection in robust metal sheath</li> <li>- Sensor is delivered with magnet as a set</li> <li>- Large sensing distance up to 40 mm</li> </ul> | <ul style="list-style-type: none"> <li>- Contactless switching</li> <li>- Switching zone is hermetically sealed</li> <li>- Operating temperature of -40 to +60°C</li> <li>- Button plates in different colors available (The protection caps with different colors must be ordered separately.)</li> </ul> |
| <b>Approval</b>                | UL available                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                               | ATEX: KEMA 05, 1206 X                                                                                                                                                                                                                                                                                      |
| <b>Applications</b>            | <ul style="list-style-type: none"> <li>- Door &amp; window control</li> <li>- Position &amp; end switch</li> <li>- Level sensor (use with magnetic floats for water level detection)</li> </ul>          | <ul style="list-style-type: none"> <li>- Position and limit switch</li> <li>- Door &amp; window control</li> <li>- Level sensors in connection with magnetic floats</li> </ul>                                                                                                                               | <ul style="list-style-type: none"> <li>- Position and limit switch</li> <li>- Door and window contact</li> <li>- Machinery</li> <li>- Agricultural engineering</li> <li>- Utility vehicle technique</li> </ul>                                                                | <ul style="list-style-type: none"> <li>- Industrial appliance</li> <li>- Machinery mode switch</li> <li>- Tank systems</li> <li>- Applications in petrochemical installations or in hazardous environments</li> </ul>                                                                                      |
| <b>Specifications</b>          |                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                            |
| Contact Forms                  | 1A, 1B, 1C                                                                                                                                                                                               | 1A, 1B, 1C                                                                                                                                                                                                                                                                                                   | 1A, 1B, 1C, 1E                                                                                                                                                                                                                                                                | 1A, 1B, 1C                                                                                                                                                                                                                                                                                                 |
| Rated Power max. (W)           | 10                                                                                                                                                                                                       | 100                                                                                                                                                                                                                                                                                                          | 100                                                                                                                                                                                                                                                                           | 10                                                                                                                                                                                                                                                                                                         |
| Switching Voltage max. (VDC)   | 400                                                                                                                                                                                                      | 1000                                                                                                                                                                                                                                                                                                         | 1000                                                                                                                                                                                                                                                                          | 400                                                                                                                                                                                                                                                                                                        |
| Switching Current max. (A)     | 0.5                                                                                                                                                                                                      | 1.0                                                                                                                                                                                                                                                                                                          | 1.0                                                                                                                                                                                                                                                                           | 0.5                                                                                                                                                                                                                                                                                                        |
| Carry Current max. (A)         | 1.25                                                                                                                                                                                                     | 1.25                                                                                                                                                                                                                                                                                                         | 1.25                                                                                                                                                                                                                                                                          | 1.0                                                                                                                                                                                                                                                                                                        |
| Avail. Operation Range (AT)    | 10 to 60                                                                                                                                                                                                 | 10 to 60                                                                                                                                                                                                                                                                                                     | 10 to 60                                                                                                                                                                                                                                                                      | —                                                                                                                                                                                                                                                                                                          |

Note: Suitable magnets can be found on Page 19.

## LEVEL SENSORS

| Mounting Form                | Level Sensors                                                                                                                                                                                                                                          |                                                                                                                                                                                                             |                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                              |                                                                                                                                                                       |                                                                                                                            |                                                                                                                                                                |                                                                                                                                              |                                                                                                                                                                             |
| Series                       | LS01                                                                                                                                                                                                                                                   | LS02 / LS02-S                                                                                                                                                                                               | LS03                                                                                                                                                                                                                                            | LS04                                                                                                                                                                                                                            | LS05                                                                                                                                                                                                                                                           |
| Description                  | Level Sensor with Magnetic Float                                                                                                                                                                                                                       | Level Sensor with Magnetic Float                                                                                                                                                                            | Level Sensor with Magnetic Float                                                                                                                                                                                                                | Level Sensor for multi-floats                                                                                                                                                                                                   | Level Sensor for multi-floats (stainless steel)                                                                                                                                                                                                                |
| Dimensions in mm (inch)      | L - 42.5 (1.673)                                                                                                                                                                                                                                       | L - 75 (2.953)                                                                                                                                                                                              | L - 80 (3.15)                                                                                                                                                                                                                                   | L - 100 -280 (3.937 - 11.023)                                                                                                                                                                                                   | L - 100 -1000 (3.937 - 39.37)                                                                                                                                                                                                                                  |
| Features                     | <ul style="list-style-type: none"> <li>- Packages available in Polypropylene and Polyamide.</li> <li>- High power switches are available</li> <li>- Form A and B available</li> <li>- Other cables, connectors, and colors available</li> </ul>        | <ul style="list-style-type: none"> <li>- Stainless version available</li> <li>- High power switches are available</li> <li>- Form A and B available</li> <li>- IP68 (only up to screw-in thread)</li> </ul> | <ul style="list-style-type: none"> <li>- Packages available in Polypropylene and Polyamide.</li> <li>- High power switches are available</li> <li>- Form A and B available</li> <li>- Other cables, connectors, and colors available</li> </ul> | <ul style="list-style-type: none"> <li>- Level sensor for vertical mounting.</li> <li>- Length of shaft 100 mm to 250 mm possible</li> <li>- Up to 5 singles floats on one shaft.</li> <li>- Standard is a PVC cable</li> </ul> | <ul style="list-style-type: none"> <li>- Level sensor for vertical mounting.</li> <li>- Tubes in different diameters available</li> <li>- Length of shaft 100 mm to 1000 mm</li> <li>- Variable switching points</li> <li>- Standard is a PVC cable</li> </ul> |
| Applications                 | <ul style="list-style-type: none"> <li>- Liquid container monitoring in household appliances, automotive applications, test and measurement, and control technology</li> <li>- Materials: PA, (for oil and petrol) PP (for water and acids)</li> </ul> |                                                                                                                                                                                                             |                                                                                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>- Liquid level monitoring in tanks</li> <li>- Minimum and maximum level detecting</li> <li>- Multistage level controlling</li> </ul>                                                     |                                                                                                                                                                                                                                                                |
| Specifications               |                                                                                                                                                                                                                                                        |                                                                                                                                                                                                             |                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                |
| Contact Form                 | 1A, 1B, 1C                                                                                                                                                                                                                                             | 1A, 1B, 1C                                                                                                                                                                                                  | 1A, 1B, 1C                                                                                                                                                                                                                                      | 1A, 1B, 1C, 1E                                                                                                                                                                                                                  | 1A, 1B, 1C, 1E                                                                                                                                                                                                                                                 |
| Rated Power max. (W)         | 10                                                                                                                                                                                                                                                     | 100                                                                                                                                                                                                         | 100                                                                                                                                                                                                                                             | 100                                                                                                                                                                                                                             | 100                                                                                                                                                                                                                                                            |
| Switching Voltage max. (VDC) | 400                                                                                                                                                                                                                                                    | 400                                                                                                                                                                                                         | 400                                                                                                                                                                                                                                             | 400                                                                                                                                                                                                                             | 400                                                                                                                                                                                                                                                            |
| Switching Current max. (A)   | 0.5                                                                                                                                                                                                                                                    | 1.0                                                                                                                                                                                                         | 1.0                                                                                                                                                                                                                                             | 1.0                                                                                                                                                                                                                             | 1.0                                                                                                                                                                                                                                                            |
| Carry Current max. (A)       | 1.0                                                                                                                                                                                                                                                    | 1.25                                                                                                                                                                                                        | 1.25                                                                                                                                                                                                                                            | 1.25                                                                                                                                                                                                                            | 1.25                                                                                                                                                                                                                                                           |

## MAGNETIC FLOATS

| Material                            | NBR (Nitrile Butadiene Rubber)                                                      |                                                                                     | PA (Polyamide)                                                                       |                                                                                       |
|-------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                                     |  |  |  |  |
| Series                              | MS01-NBR                                                                            | MS02-NBR                                                                            | MS01-PA                                                                              | MS02-PA                                                                               |
| Outer ø - Inside ø - H in mm (inch) | 24.5 - 8.0 - 19.0 (0.964 - 0.315 - 0.748)                                           | 25.0 - 9.15 - 16.5 (0.984 - 0.36 - 0.65)                                            | 23.5 - 8.5 - 19.0 (0.925 - 0.335 - 0.748)                                            | 25.0 - 9.15 - 16.55 (0.984 - 0.36 - 0.652)                                            |
| Features & Applications             | excellent resistance to petroleum-derived liquids                                   |                                                                                     | high strength-to-weight, shock and abrasion resistant                                |                                                                                       |

| Material                               | PA (Polyamide)                                                                    | PP (Polypropylene)                                                                                         |                                                                                     |                                                                                     |
|----------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                        |  |                           |  |  |
| Series                                 | MS07-PA                                                                           | MS01-PP                                                                                                    | MS02-PP                                                                             | MS03-PP                                                                             |
| Outer ø - Inside ø - H<br>in mm (inch) | 36.0 - 16.15 - 19.0<br>(1.417 - 0.636 - 0.748)                                    | 23.5 - 8.4 - 19.0<br>(0.925 - 0.331 - 0.748)                                                               | 25.2 - 9.15 - 16.55<br>(0.992 - 0.36 - 0.652)                                       | 27.0 - 11.0 - 11.7<br>(1.063 - 0.433 - 0.461)                                       |
| Features & Applications                | high strength-to-weight,<br>shock and abrasion resistant                          | highly resistant to chemical solvents, bases and acids;<br>also for food and beverage industrial (MS06-PP) |                                                                                     |                                                                                     |

| Material                               | PP (Polypropylene)                                                                                         |                                                                                   | V2A (Edelstahl)                                                                     |                                                                                     |
|----------------------------------------|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                        |                           |  |  |  |
| Series                                 | MS04-PP                                                                                                    | MS06-PP                                                                           | MS09-S                                                                              | MS10-S                                                                              |
| Outer ø - Inside ø - H<br>in mm (inch) | 18.5 - 10.2 - 20.0<br>(0.728 - 0.402 - 0.787)                                                              | 30.0 - 8.0 - 8.0<br>(1.181 - 0.315 - 0.315)                                       | 24.0 - 9.5 - 24.0<br>(0.945 - 0.374 - 0.945)                                        | 38.3 - 9.5 - 26.3<br>(1.508 - 0.374 - 1.035)                                        |
| Features & Applications                | highly resistant to chemical solvents, bases and acids;<br>also for food and beverage industrial (MS06-PP) |                                                                                   | resistant to high temperatures ideal<br>for the Food & Beverage industry            |                                                                                     |

## Magnets in Casings

| Type                                        | M02                                                                                 | M04, M13                                                                            | M05                                                                                   | M06                                                                                   |
|---------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                                             |  |  |  |  |
| Dimensions<br>in mm (inch)                  | L - 32.4 (1.276)<br>W - 16.7 (0.657)<br>H - 10 (0.394)                              | L - 23 (0.906)<br>W - 13.9 (0.547)<br>H - 5.9 (0.232)                               | L - 23 (0.906)<br>W - 19.4 (0.763)<br>H - 5.9 (0.232)                                 | L - 12.06 - 22.32 (0.475 - 0.879)<br>W - 3.3 (0.13)<br>H - 4.2 (0.165)                |
| Magnetic Moment<br>$\times 10^{-5}$ Vs x cm | 2.22                                                                                | 2.22                                                                                | 2.22                                                                                  | 0.53                                                                                  |

| Type                                        | M11 (Stainless)                                                                     | M11 (Plastics)                                                                      | M11 (Brass)                                                                          | M12                                                                                   | M21                                                                                   |
|---------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                                             |  |  |  |  |  |
| Dimensions<br>in mm (inch)                  | L - 25 (0.984)<br>Ø - M5x0.5                                                        | L - 38 (1.496)<br>Ø - M8                                                            | L - 38 (1.496)<br>Ø - M12, M10,<br>M8, M6                                            | L - 32 (1.26)<br>W - 14.9 (0.587)<br>H - 6.9 (0.272)                                  | L - 28.6 (1.126)<br>W - 6.35 (0.25)<br>H - 19 (0.748)                                 |
| Magnetic Moment<br>$\times 10^{-5}$ Vs x cm | 1.8                                                                                 | 2.22                                                                                | 2.22                                                                                 | 3.8                                                                                   | 2.22                                                                                  |

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