

fischer connectors

Shortform Catalogue



Edition 2.0

fischer
CONNECTORS
www.fischerconnectors.com

■ High Performance Push-Pull Connector and Cable Assembly Solutions

For more than 50 years, Fischer Connectors has designed, manufactured, and distributed high performance push-pull connector and cable assembly solutions. Known for their quality and ruggedness, our products prove to be reliable in the most demanding environments.

Fischer Connectors is committed to working closely with its customers to equip their application with the most appropriate connector and cable system. Our product range comprises over 10,000 standard items and we are always prepared to develop customized solutions for specific requests.

Primary design and manufacturing facilities are in Switzerland, with subsidiaries and distributors located worldwide.



■ Core Competencies

- Integrated push-pull connector and cable systems
- World-class customer service
- Rugged solutions for demanding environments
- High flexibility of product configurations
- Standard solutions or customized product development
- Specialized advice and support
- High quality industrial processes
- Trusted by high-end industries



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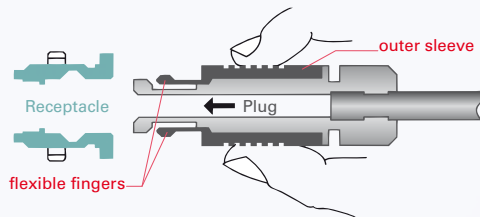


■ Original Push-Pull Locking System

- **Original push-pull locking system**
widely adopted by the industry
- **Unparalleled signal integrity**
fully secured against accidental disconnection
- **Self-locking mechanism**
designed for frequent connect/disconnect operations
- **Ideal for compact product designs**
locking system integrated into connector housing
- **Push-pull locking system delivered as standard**
non-locking or emergency release solutions also available

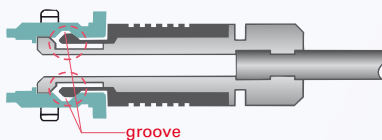
How Does it Work ?

The plug has an outer sleeve, with flexible fingers, which slides forward and backwards along the plug body.



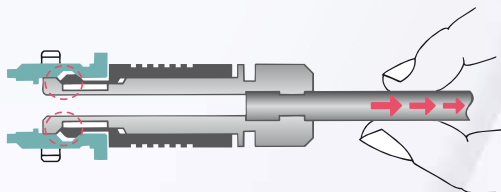
When Mated

The bevelled edges are firmly captured by a locking groove located inside the receptacle.



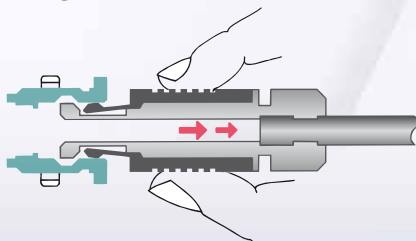
When Cable Pulled

The bevelled edges of the fingers are forced into the groove, securing the connection.



When Unplugging

Pulling on the outer sleeve of the plug unlocks the latching mechanism.



■ Designed for Easy Connect/Disconnect Operations

- **Easy connection, can be blind-mated**
guiding mechanism ensures precise alignment
- **Increased safety and user friendliness**
mechanical and color coding prevent misconnection
- **Convenient grip even with gloves**
circular connectors with ribbed housing profile
- **Increased equipment life span**
guiding mechanism optimally protects the contacts





■ Proven Rugged, Lightweight and Compact Solutions

- **Robust and shock resistant designs**
ideal for equipment used in the field
- **Compact and lightweight construction**
ideal for miniature and portable devices
- **High pin density and hybrid contacts**
contributing to equipment miniaturization
- **Long product durability**
10,000 mating cycles guaranteed



■ Operational in Demanding and Harsh Environments

- **High performance connectors**
designed and tested to withstand extreme conditions
- **Sealed up to IP68 and corrosion resistant**
usable underwater
- **Hermetic**
for use in vacuum or pressurized environments
- **Sterilizable**
ideal for medical applications
- **360° EMC shielded**
preventing electromagnetic interferences
- **Functional in a wide temperature range**
from -65°C to +200°C



■ *Complete Customer Solutions*

- **Leading edge connector technology**
innovative and high performance products
- **Standard or customized solutions**
> 10,000 standard items or custom developments
- **Complete range of accessories**
cable bend relief, sleeves, caps and reels
- **Specialized technical and sales support**
assistance through advice, design, prototype and assembly
- **Worldwide network**
close to our customers to offer unqualed service



■ Cable Assembly Expertise and Capabilities

- **One-stop-shop supplier**
Integrated connectors, cable assemblies and overmolding solution
- **Engineering expertise**
*Standard and customized high quality solutions
Various assembly and termination techniques*
- **Added value services**
*Design assistance and validation
Prototyping for customized cable assembly solutions
Advanced in-process testing to ensure optimum reliability*
- **Wide range of overmold designs and materials**
Thermoplastic, vulcanized thermoplastic and silicon
- **Solutions for demanding applications**
Rugged, submersible and sterilizable cable and overmolding solutions



Body Styles

- Circular push-pull design
- Metal or plastic housings
- Ultralight housings available
- Various housing colors
- Cable or panel mounted
- Straight or right-angled
- Flush or front projecting
- Unsealed, sealed or hermetic
- Front or rear-mounted
- Overmoldable, heat shrinkable
- Reusable or single-use solutions

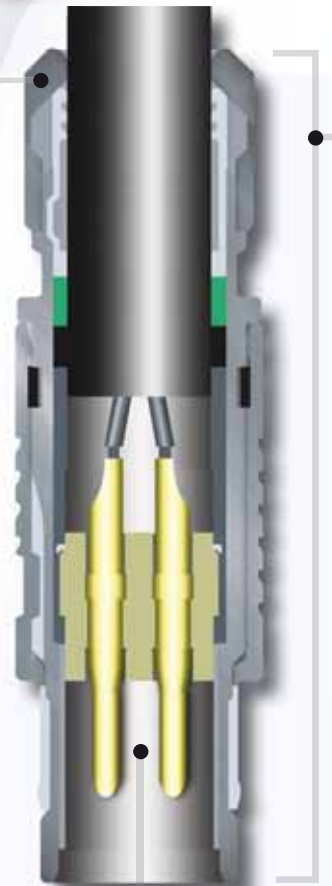
For body styles overview, see page 12 and following.



Contact Configurations

- Low voltage
- High voltage
- Coax / Triax
- Fiber optic
- Fluid / Gas
- Hybrid

For more information on contact configurations, see pages 8 and 9.



Sizes

- All Body styles available in several sizes (101 to 107) or (08 to 18) depending on connectors series
- From 1.5 to 22.7mm cable diameters
- From 1 to 55 contacts



Pictures represent plug UP01.

Total length will depend on chosen overmolding solution.



101



102



103



1031



104



105



1051

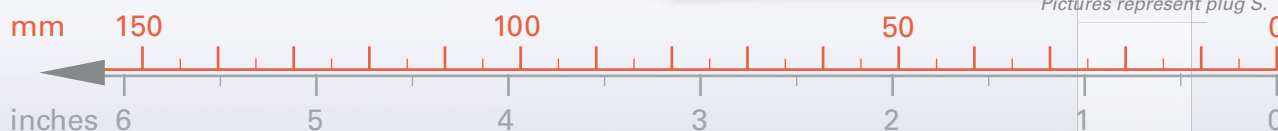


106



107

Pictures represent plug S.





■ Low Voltage

- Wide range of body styles and sizes
- Signal or power
- Single or multipole (up to 55 contacts)
- Up to 50A
- Standard or inverted polarity
- Solder, crimp or PCB contacts
- Available with flexible circuits
- Unsealed, sealed or hermetic



■ High Voltage

- Wide range of body styles and sizes
- Power
- Multipole or coax
- Up to 50kV
- Standard or inverted polarity
- Individually insulated contacts
- Locking ring for integral safety
- Unsealed, sealed or hermetic



■ Coax/Triax

- Wide range of body styles and sizes
- RF signal or power
- 50 and 75 ohms impedance
- Up to 6GHz
- Standard or inverted polarity
- Unsealed, sealed or hermetic
- Dedicated Coax series (101 A004) for Nim-Camac standard
- Dedicated Triax series (1051/1052) for broadcast cameras



■ Fiber Optic

- Wide range of body styles and sizes
- Signal or light
- Single or multimode
- Single or multi-fiber (up to 16)
- Sealed or unsealed



■ Hybrids

- High flexibility of contact configurations, mixing:
 - Low voltage
 - High voltage
 - Coax
 - Fiber optic
 - Fluid/Gas
- Solving complex interconnection needs
- Wide range of body styles and sizes
- Sealed or unsealed
- Dedicated hybrid series (1053) for fiber-based HDTV cameras



■ Medical

- Diagnostic devices
- Surgical instrumentation
- Therapy applications
- Medical imaging
- Cardiac assist devices
- Disposable equipment



■ Instrumentation

- Test & measurement
- Sensors
- Data acquisition
- Automation
- Scientific research
- Vacuum



■ Transport

- Avionics
- Maritime
- Automotive
- Railways



■ Energy

- Petrol & gas
- Nuclear
- Renewable energies
- Batteries
- Fuel cells



■ Defense & Security

- Communication systems
- Surveillance equipment
- Computers
- Target acquisition



■ Broadcast







- Studios and outside broadcasting
- TV and motion picture
- HD and SD cameras
- Remote camera control



■ Harsh Environments

- Motorsports
- Sailboat racing
- Diving
- Submarine industry
- Weatherproof applications







| | | Connector Style | Protection | | | Locking System | | | | Contacts | | | Design | | | Assembly | | | | | | |
|---|---|-----------------|-------------------|----------|------------------|----------------|-----------|-------------------|---------|-------------|-----------------|-----------------|--------|----------------|-------------|------------|---------------|----------------------------|-------------------------------|---------------|----------------|---------------|
| | | | Sealed up to IP68 | Hermetic | 360°EMC shielded | None | Push-pull | Emergency release | Lanyard | Tamperproof | Crimp | Solder | PCB | Shortened body | Right angle | Disposable | Cable mounted | Overmoldable ¹⁾ | Heat shrinkable ¹⁾ | Panel mounted | Front mounting | Rear mounting |
| | | | | | | | | | | | | | | | | | | | | | | |
| Metal |  | S | ● | | ● | | ● | | | | ● | ● | | | | | ● | | | | | |
| | | SC | ● | | ● | | | ● | | | ● | ● | | | | | ● | | | | | |
| |  | SOV | ● | | ● | ● | | | | | ● | ● | | | | | ● | | | | | |
| |  | SA | ● | | ● | | ● | | ● | | ● | ● | | | | | ● | | | | | |
| |  | SV | ● | | ● | | ● | | | ● | ● | ● | | | | | ● | | | | | |
| |  | SS | ● | | ● | | ● | | | | ● | ● | | ● | | | ● | ● | ● | | | |
| | | SSC | ● | | ● | | | ● | | | ● | ● | | ● | | | ● | ● | ● | | | |
| |  | WSO | ● | | ● | | ● | | | | ● | ● | | | ● | | ● | | | | | |
|  | UP01 | ● ²⁾ | ● ²⁾ | ● | | ● | ● | | | | ● ³⁾ | ● ³⁾ | | ● | | | ● | ● | ● | | | |

¹⁾ Available in straight and right angle.


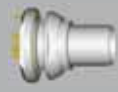

²⁾ IP68/69K with Fischer Connectors Cable Assembly Solution.











³⁾ Crimp contacts available for size 13 and 18, solder contacts for size 08 and 11.

| | | | | | | | | | | | | | | | | | | | | | | |
|---------|---|-------------------------|---|--|---|--|---|--|--|--|---|---|---|---|--|---|---|---|--|---|---|--|
| Plastic |  | 405 S | | | • | | • | | | | • | • | | | | | • | | | | | |
| | | 405 SI | | | | | • | | | | • | • | | | | | • | | | | | |
| |  | 4032 SI | • | | | | • | | | | • | • | | | | | • | | | | | |
| |  | L.U.C. | | | | | • | | | | • | • | • | | | • | • | | | | | |
| |  | L.U.C. interface | | | | | • | | | | • | • | • | • | | • | • | • | | • | • | |




The 405 plastic plugs are intermateable with any metal receptacles or cable receptacles of the size 105.

The L.U.C. plastic plugs are intermateable with any metal receptacles or cable receptacles of the size 104.

| | | | Connector Style | Protection | | | Locking System | | | | Contacts | | | Design | | | Assembly | | | | | |
|-------|---|------|-----------------|-------------------|----------|------------------|----------------|-----------|-------------------|---------|-------------|-------|--------|--------|----------------|-------------|------------|---------------|--------------|-----------------|---------------|----------------|
| | | | | Sealed up to IP68 | Hermetic | 360°EMC shielded | None | Push-pull | Emergency release | Lanyard | Tamperproof | Crimp | Solder | PCB | Shortened body | Right angle | Disposable | Cable mounted | Overmoldable | Heat shrinkable | Panel mounted | Front mounting |
| Metal |  | SF | | | ● | ● | | | | | ● | ● | ● | | | | | | | ● | ● | |
| | | SFU | ● | | ● | ● | | | | | | ● | ● | | | | | | | ● | ● | |
| | | SFE | ● | ● | ● | ● | | | | | | ● | ● | | | | | | | ● | ● | |
| |  | SFPU | ● | | ● | ● | | | | | | ● | ● | | | | | | | ● | | ● |
| | | SFPE | ● | ● | ● | ● | | | | | | | ● | ● | | | | | | | ● | |
| |  | UP50 | ● | ● | ● | ● | | | | | | ● | ● | | | | | | | ● | ● | |

| | | Connector Style | Protection | | | Contacts | | | Design | | | | Assembly | |
|-------|---|-----------------|-------------------|----------|------------------|------------------|------------------|------------------|-------------|-------|------------------|----------------------|----------------|---------------|
| | | | Sealed up to IP68 | Hermetic | 360°EMC shielded | Crimp | Solder | PCB | Right angle | Flush | Front projecting | Bulkhead feedthrough | Front mounting | Rear mounting |
| Metal |  | D | | | • | • | • | • | | • | | | • | |
| |  | DEU | • | | • | | • | • | | • | | | • | |
| | | DEE | • | • | • | | • | • | | • | | | • | |
| |  | DB | | | • | • | • | • | | | • | | • | |
| |  | DBEU | • | | • | | • | • | | | • | | • | |
| | | DBEE | • | • | • | | • | • | | | • | | • | |
| |  | DBP | | | • | • | • | • | | • | | | | • |
| |  | DBPU | • | | • | | • | • | | • | | | | • |
| | | DBPE | • | • | • | | • | • | | • | | | | • |
| |  | DBPLU | • | | • | | • | • | | | • | | | • |
| | | DBPLE | • | • | • | | • | • | | | • | | | • |
| |  | DG | | | • | • | • | | | • | • | | • | • |
| | | DGP | | | • | | | • | | • | • | | • | • |
| |  | DBPC | | | • | | | • | • | • | | | | • |
| |  | WDE | • | • | • | NA ¹⁾ | NA ¹⁾ | NA ¹⁾ | | • | • | • | • | |

¹⁾ Not available







| | | Connector Style | Protection | | | Contacts | | | Design | | | | Assembly | |
|-------|---|-----------------|-------------------|----------|------------------|----------|-----------------|-----|-------------|-------|------------------|----------------------|----------------|---------------|
| | | | Sealed up to IP68 | Hermetic | 360°EMC shielded | Crimp | Solder | PCB | Right angle | Flush | Front projecting | Bulkhead feedthrough | Front mounting | Rear mounting |
| Metal |  | UR01 | • | • | • | | • ¹⁾ | • | | | • | | | • |
| |  | UR02 | • | • | • | | • ¹⁾ | • | | • | | | | • |
| |  | UR03 | • | • | • | | • | • | | | • | | • | |

¹⁾ Solder contacts not available for size 13 and 18.

| | | | | | | | | | | | | | | |
|---------|--|-----------|-----------------|--|---|---|---|---|--|---|--|--|--|---|
| Plastic |  | 405 DBP | | | • | • | • | • | | • | | | | • |
| |  | 4032 DBP | | | | • | • | • | | • | | | | • |
| | | 4032 DBPO | • ²⁾ | | | • | • | • | | • | | | | • |

²⁾ The 4032 DBPO receptacle is sealed up to IP68 only when mated.

The 405 plastic panel receptacle is intermateable with any metal plugs of the size 105.

| | | Connector Style | Protection | | Contacts | | Design | Assembly | | | |
|-------|---|-----------------|-------------------|------------------|----------|--------|----------------|---------------|--------------|-----------------|---------------|
| | | | Sealed up to IP68 | 360°EMC shielded | Crimp | Solder | Shortened body | Cable mounted | Overmoldable | Heat shrinkable | Panel mounted |
| Metal |  | K | | • | • | • | | • | | | |
| | | KE | • | • | • | • | | • | | | |
| |  | KS | | • | • | • | • | • | • | • | |
| | | KSE | • | • | • | • | • | • | • | • | |
| |  | DKBE | • | • | • | • | | • | | | • |
| |  | DK | | • | • | • | | • | | | • |
| |  | DKE | • | • | • | • | | • | | | • |
| |  | UR50 | • ¹⁾ | • | | • | • | • | • | • | |

¹⁾ IP68/69K with Fischer Connectors Cable Assembly Solution.

■ *Contact Us for More*

What is the optimal connector shell size for my application?
Would a plastic housing be better than a metal one?
Could my connection mix fiber optic and electrical contacts?
For my application, what would be the appropriate sealing level?...

Selecting the right connector and cable system is an important and challenging process.

If in doubt, just ask! Our specialists are on hand to help you equip your application with the most suitable connector solution.
Contact us.

www.fischerconnectors.com

Our website is your starting point to:

■ Find your local Fischer Connectors office

www.fischerconnectors.com/contacts

■ Download our catalogues

www.fischerconnectors.com/catalogues

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- *3D CAD models*
- *Technical and dimensional specifications*
- *Assembly instructions*

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