



IDEC-DATASENSOR Optical Sensing Devices

IDEC-DATASENSOR Sen





Collaboration Provides More Solutions!

DATASENSOR SpA, a part of the DATALOGIC group and one of the largest photoelectric sensor manufacturers in the world, has been collaborating with IDEC Corporation. Together IDEC and DATASENSOR provide a complete range of high-performance sensors that are easy for customers to install and use. Recognized as a cutting-edge company, DATASENSOR has won many awards including the prestigious International Best Factory Award, while holding over twenty patents and trademarks.

IDEC is known worldwide for bringing reliable and innovative control and automation products and solutions to the market for over sixty years. A leader in the industry, IDEC produces only the highest quality products.

When you need reliable, high-quality products, as well as superior customer service and support, IDEC and DATASENSOR can provide cost-effective solutions for all your sensing needs. To see the wide range of available products visit **www.IDEC-DS.com**.

- Innovation
- Quality
- Selection
- Value





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Universal Photoelectric Sensors

S15 Series

Short body tubular photoelectric sensors

- Compact housing only 40mm
- Cable output
- No sensitivity adjustment
- IP69K mechanical protection



The M18 tubular S15 sensors have a housing length of only 40mm. In addition, the S15 series does not have a sensitivity adjustment making installation quick and easy. This also reduces the possibility of an operator modifying the sensor's performance, ensuring reliability and productivity. The main optical functions used in industrial markets are available: polarized retro-reflective, non-polarized retro-reflective, diffuse and throughbeam. With IP69K protection, these sensors are ideal for applications with harsh environmental conditions. Cable or pigtail models are available.

S51 Series

Cost-effective line of standard M18 tubular photoelectric sensors

- Wide selection of universal optical functions
- The best performance at the best price
- Flat plastic or metal M18 housing
- Axial or radial, cable or connector
- Standard 3 wire & dark/light inputs



Representing a cost-effective solution for optical detection in industrial automation applications, the S51 series comes with a wide range of operating distances. The diffuse model has a 100mm fixed operating distance with a wide emission spectrum. Also available is a model with a 10 to 400mm adjustable operating distance. Standard retro-reflective models have an operating distance up to 4m. The polarized retro-reflective models, used for reliable detection of reflective objects, are fitted with a sensitivity adjustment, and have a 3.5m operating distance. The emitter and receiver models are used for longer operating distances, up to 18 meters. All models are available in both flat plastic housing or cylindrical metal housing, with either axial or radial optics, cable or M12 connection and an NPN or PNP output.

S50 Series

M18 photoelectric tubular sensors

- Full range of optical functions & laser models
- M18 flat plastic with universal mounting
- Available in M18 metal housing
- Axial or radial optics, cable or connector
- Standard 4 wire NO-NC NPN or PNP outputs



The S50 series offers a wide range of optical functions in a standard M18 housing. Ranging from universal with laser class 1 emission, to the most advanced with foreground and/or background pression, contrast, luminescence or distance sensors with analog output are available. All models come in a flat plastic housing with universal mounting (M18 nuts or M3 screws), or the more traditional cylindrical metal housing. Axial or radial optics, cable or M12 connection with 4 wire standard configuration and NO-NC NPN or PNP outputs are available. The S50 series is the 'One for All' solution for industrial automation.

Product Overview

S10 Series

Tubular M18 metal IP69K photoelectric sensors

- Standard optical functions available
- IP69K protection
- Stainless steel models
- Ideal for pharmaceutical & food industries
- Standard 3 wire output configuration



With a tubular M18 metallic housing, the S10 photoelectric sensor is ideal for harsh applications in pharmaceutical or food industries. The IP69K protection ensures water resistance (for washing) up to 80°C and 100 bar pressure. In addition, for better resistance against more corrosive chemical agents and detergents, stainless steel models are available. These provide excellent resistance to corrosion. The S10 series includes adjustable 100, 350 or 600mm diffuse, 14mm fixed focus, 4m retro-reflective, 3m polarized retroreflective, 1m for transparent objects, and 18m through-beam. The M12 connections require only 3 wires for power and NPN or PNP output.

SA1E Series

Miniature photoelectric sensors

- 50 250mm background suppression
- 0.7m diffuse, 150mm narrow beam
- 4m polarized retro-reflective
- 15m through-beam
- Standard 3 wire output configuration



Ensuring accurate recognition of target objects is critical for many control systems. When selecting sensors, the most important criteria to consider are: reliability, durability and ruggedness. SA1E sensors incorporate all of these features in a compact housing, and are also easy-to-install and competitively priced. Available in 15m through-beam, 4m polarized retro-reflective. 700mm diffuse, and narrow beam models for between 50 and 150mm. In addition, a 50 to 250mm background suppression model with a multi-turn mechanical adjustment is available. Versions with NPN or PNP output, dark or light operating mode and cable or M8 connections are available.

S8 Series

Advanced miniature photoelectric sensors

- Compact dimensions (14 x 42 x 25mm)
- 10kHz switching frequency
- Extremely focused spot, under 1mm (laser model)
- Very high resolution
- Coaxial models



The S8 series of compact sensors offers excellent performance usually associated with sensors that have larger dimensions and a higher price. The series offers laser models with coaxial, polarized retro-reflective models for detection of transparent objects, biaxial retro-reflective, background suppression, diffuse, as well as contrast models with RGB emission. The laser models provide an extremely focused spot, as small as 1mm, and switching frequencies that are among the highest on the market reaching 10kHz. The retro-reflective models offer reliability and can improve plant productivity thanks to an additional ALARM output for dirty lenses. M8 connector or M12 pigtail models are available.

Universal Photoelectric Sensors

S40/S41 Series

Extended range of miniature photoelectric sensors

- Cost-effective universal models
- High-performance models with Teach button
- Background suppression and laser
- Polarized retro-reflective for transparent objects
- 4 wire NO/NC output





The S40 series and cost-effective S41 basic line represent the most complete offer of miniature photoelectric sensors with standard market dimensions and mounting. Different models are available including 6m through-beam, 3m polarized retro-reflective with 6m laser emission. and 0.7m retro-reflective for transparent objects. There are also 350mm fixed focus. 150mm laser, 100mm background suppression and 60mm laser models for more precise detection. The S40 series offers NO output with Remote input for models with Teach button settings, whereas the S41 line has NO-NC output for versions with potentiometer adjustments. All models have NPN or PNP outputs with cable or M8 connections.

S7 Series

Fiber optic amplifiers in a compact format for DIN rail mounting

- High-resolution models with display
- 12-bit resolution and 50µs response
- Potentiometer or Teach button models
- Wide range of fiber optic accessories
- 4 wire NO/NC output or remote input



Providing an ideal solution for mounting units on DIN rails, the S7 series allows several fiber optic detection points in different machine positions. S7 sensors are good for situations where space is limited, in the presence of mechanical constraints or high temperatures. Models with 50µs response time and 4-digit display indicators are available for applications requiring high-precision and speed detection of small objects, or objects with low color contrast. Standard 500µs and 10-bit models are ideal for applications with longer operating distances. Sensor setting is easy and guick with the EASYtouch™ system or potentiometer adjustment in more cost-effective models.

S60 Series

Extended photoelectric sensor range in a compact 50 x 50mm format

- Universal and application optical functions
- Class 1 laser models for long distances
- Polarized retro-reflective for transparent objects
- Contrast and UV luminescence sensors
- Standard 4 wire NO-NC NPN or PNP



In a compact 50 x 50mm housing and only 15mm wide, the S60 series offers both basic and advanced optical functions for presence detection (including class 1 laser). Different models include polarized retroreflective with coaxial optics for detection of reflective and transparent objects, foreground and background suppression, white light contrast sensors for detection of color marks, a UV emission luminescence sensor and a distance sensor with analog output. Versions with cable or two-position rotatable M12 connector are available, with NPN or PNP standard outputs.

Product Overview

S62 Series

High-performance background suppression & polarized retro-reflective sensors

- Sensors with LED or laser emission
- Background suppression from 30mm to 2m
- Polarized retro-reflective up to 20m
- Distance sensor 50 to 150mm
- NPN/PNP output NO-NC configuration



The S62 series offers maximum performance for industrial automation applications. The background suppression models reach ranges up to 300mm with visible red LED emission, or up to 2m with infrared LED emission. The polarized retroreflective models, with visible red LED emission, provide a long operating distance up to 10m with high immunity against reflections from shiny objects. Versions with visible red laser emission are available with both 30 to 150 or 50 to 350mm background suppression, polarized retro-reflective up to 22m and distance measurement from 50 to 150mm. The laser sensors are characterised by a very small light spot and a quick response time that guarantees accurate detection.

S90 Series

Extended range of compact photoelectric sensors in a metal housing

- Background suppression and polarized retro-reflective
- Class 1 laser models for long distances
- Contrast and UV luminescence sensors
- High mechanical protection
- Standard 4 wire NO-NC NPN or PNP outputs



Developed in a sturdy compact 41 x 49 x 15mm metal housing, the S90 series, offering all application and universal optical functions, is also available with a class 1 laser. The series includes polarized retroreflective models with coaxial optics for the detection of reflective or transparent objects, foreground and background suppression versions, a contrast sensor with white light emission for detection of registration marks, and a luminescence sensor with UV emission for fluorescent mark detection. Versions with NPN or PNP outputs are available with a standard M12 connector that can rotate in four positions.

SA1U Series

Line of heavy duty photoelectric sensors ideal for critical applications

- Basic optical functions
- IP67 mechanical protection
- Timing functions (ONE-SHOT, ON / OFF Delay)
- Connection block with spring-up screw terminals to assist with cabling



When customers have an application requiring sensors with reliable long-distance sensing in unforgiving environments, look no further than the heavy-duty SA1U photoelectric sensors! These high-quality sensors are offered in four sensing modes: 50m through-beam, 7m polarized retro-reflective, 1m diffused and 2m background suppression. Versions with DC and 24-240V AC / 12-240V DC free-voltage are available with timing models, adjustable from 0.1 to 5 seconds. The outputs can either be SPDT relay contacts or transistor with double NPN/PNP outputs. The connection block facilitates connections and simplifies installation.

Universal Photoelectric Sensors



Tubular

Through-beam Retro-reflective (using RZ reflector) Diffuse 10 - 100mm		Series		S15	S51
Retro-reflective for transparent objects (using R2 reflector) Diffuse	999	Through-beam	-	0 - 20m	0 - 20m
Retro-reflective for transparent objects (using R2 reflector) Diffuse	9.00 10.00 1	Retro-reflective (using R2 reflector)	171	0.1 - 4m	0.1 - 4m
Retro-reflective for transparent objects (using R2 reflector) Diffuse	20 22 11 11	Polarized retro-reflective (using R2 reflector)	121	0.1 - 3m	0.1 - 3m
Fixed focus	Č	Retro-reflective for transparent	17:		
Background suppression Foreground suppression Distance sensor Through-beam with fiber optic Diffuse with fiber optic Power supply V AC V AC/V DC PNP PNP NPN/PNP relay (SCR) other Connection Connection Dimensions (mm) Dimensions (mm) Housing material ABS PBT Ni plated brass		Diffuse	121	10 - 100mm 10 - 350mm	
Foreground suppression Distance sensor Through-beam with fiber optic Diffuse with fiber optic Power supply Po		Fixed focus	121		
Distance sensor Through-beam with fiber optic Diffuse with fiber optic Power supply V AC VAC/V DC VAC/V DC		Background suppression	IZIX		
Through-beam with fiber optic Diffuse with fiber optic Power supply P		Foreground suppression			
Diffuse with fiber optic Power supply Powe		Distance sensor			
Power supply P		Through-beam with fiber optic	*		
Power supply		Diffuse with fiber optic	^-□≢		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	- -		V DC	12 - 30 🕪 🕻	10 - 30 🕪 🗸
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	<u> </u>	Power supply	V AC		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	-		V AC/V DC		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	7 <u>-</u>			√	√
				$\sqrt{}$	$\sqrt{}$
		Output			
				.1	J
pigtail√Dimensions (mm)M18 x 40M18 x 55/68Housing materialABSPBT Ni plated brass		Connection		V	
Dimensions (mm) M18 x 40 M18 x 55/68 Housing material ABS PBT Ni plated brass		Oomioonon		V	V
Housing material ABS PBT Ni plated brass		Dimensions (mm)	pigtall		M18 x 55/68
					PBT
		Mechanical protection		IP69K	







S 5	S50	S10
0 - 12m	0 - 30m 0 - 60m 🛕	0 - 18m
0.1 - 4m	0.1 - 4m	0.1 - 4m
0.1 - 3m	0.1 - 4m 0.1 - 16m 🛕 cl.1	0.1 - 3m
0.1 - 0.8m	0.1 - 1.3m	0.1 - 0.8m
10 - 100mm 10 - 350mm 10 - 600mm	0 - 100mm 0 - 400mm 0 - 700mm 0 - 350mm	10 - 100mm 10 - 350mm 0 - 600mm
15mm	100mm	14mm
	50 - 100mm	
	40 - 100mm	
	50 - 100mm	
0 - 85mm	0 - 100mm	
0 - 22mm	0 - 30mm	
10 - 30 🕪 🗸	10 - 30 🕪 🕑	10 - 30 🕪 🗸
15 - 264		
√	√	√
√	V	√
(√)		
1 ¥7	0 - 10V	
√	√	
√	$\sqrt{}$	√
M18 x 55/68	M18 x 55/68	M18 x 55/67
ABS	PBT Ni plated brass	Ni plated brass stainless steel
IP67	IP67	IP69K

Universal Photoelectric Sensors





Miniature & Fiber Optic

	Series		SA1E	SMall
ances	Through-beam	→	0 - 15m	0 - 2m
ig Dist	Retro-reflective (using R2 reflector)	1#		50 - 1500mm
Operating Distances	Polarized retro-reflective (using R2 reflector)	I ZE	0.05 - 4m	0.1 - 1m
0	Retro-reflective for transparent objects (using R2 reflector)	1#		
	Diffuse	 	0 - 700mm 50 - 150mm	
	Fixed focus	KI		3 - 15mm 3 - 20mm 3 - 30mm 3 - 50mm
	Background suppression	IZIX	50 - 250mm	
ata		V DC	10 - 30 🕪 🗸	10 - 30 📞
Technical Data	Power supply	V AC		
hnic		V AC/V DC		
Jec		PNP	\checkmark	$\sqrt{}$
		NPN	\checkmark	$\sqrt{}$
	Output	NPN/PNP		
		relay (SCR)		
		other		
		cable	$\sqrt{}$	$\sqrt{}$
		Cable	V	v
	Connection	connector	√	,
				,
	Connection Dimensions (mm)	connector		8 x 23 x 12
		connector	V	

Miniature & Fiber Optic



S8			
0 - 10m 🛕 ^{cl.2} 0.1 - 5m			
0 - 0.8m			
0 - 500mm			
20 - 200mm 🛕 ^{cl.2} 50 - 300mm			
12 - 30 🕪 🕻			
√ √			
\checkmark			
√			
√			
14 x 42 x 25			
ABS			
IP67			



Universal Photoelectric Sensors





Miniature & Fiber Optic

Williature & Fiber O	Series		S40	S41
ances	Through-beam	l→l	0.1 - 6m	0.1 - 6m
ig Dista	Retro-reflective (using R2 reflector)	17:	0.1 - 3m	
Operating Distances	Polarized retro-reflective (using R2 reflector)	I ZE	0.1 - 2.5m 0.1 - 6m 🛕 cl.2	0.1 - 2.5m
0	Retro-reflective for transparent objects (using R2 reflector)	1#	0.1 - 0.7m	0.1 - 0.7m
	Diffuse	IZI	5 - 300mm 40 - 150mm c1.2	2 - 350mm
	Fixed focus	121		110mm
	Background suppression	IZIX	15 - 100mm 20 - 60mm 🛕 ^{cl.2}	
	Through-beam with fiber optic			
	Diffuse with fiber optic	~==		
ata		V DC	10 - 30 🕪 📞	10 - 30 🕪 🕑
Technical Data	Power supply	V AC		
hic		V AC/V DC		
Tec		PNP	\checkmark	$\sqrt{}$
		NPN	$\sqrt{}$	V
	Output	NPN/PNP		
		relay (SCR)		
		other		
		cable	√	√
	Connection	connector	√	√
		pigtail		
	Dimensions (mm)		12 x 32 x 20	12 x 32 x 20
	Housing material		ABS	ABS
	Mechanical protection		IP67	IP67

Miniature & Fiber Optic





S 3	\$ 7
0 - 5m	
0.1 - 2.5m	
0.1 - 2m	
0.2 - 0.8m	
0 - 100mm 0 - 500mm	
12mm	
0 - 110mm	0 - 300mm 0 - 150mm 0 - 75mm
0 - 33mm	0 - 100mm 0 - 50mm 0 - 25mm
10 - 30 🖫 🕻	12 - 24 🖫 🗸
	1
√	√ √
	V
v	
\checkmark	\checkmark
√	$\sqrt{}$
13 x 42 x 29	10 x 40 x 65
ABS	ABS
IP66	IP65 IP50 (potentiometer model)



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Universal Photoelectric Sensors





Compact

Cullipact					
		Series		S 6	S60
Operating Distances	Through-beam	I→I	0 - 20m	0 - 20m 0 - 60m 🛕 cl.1	
Ċ	ng Dist	Retro-reflective (using R2 reflector)		0.1 - 6m	
	Uperatii	Polarized retro-reflective (using R2 reflector)	IZE	0.1 - 5m	0 - 3.2m (coaxial) 0.1 - 6.5m 0.1 - 20m
		Retro-reflective for transparent objects (using R2 reflector)	1#	0.1 - 1m	0 - 1.7m (coaxial)
		Diffuse		10 - 900mm 50 - 2000mm	10 - 1000mm 50 - 2000mm 0 - 600mm c ^{cl.1}
		Background suppression		1 - 100mm 30 - 250mm 100 - 500mm	70 - 200mm 50 - 100mm
		Foreground suppression		50 - 200mm	70 - 200mm
		Distance sensor			50 - 150mm
Technical Data		V DC	10 - 30 🕪 🗸	10 - 30 🕪 🗸	
-	a D	Power supply	V AC		
•			V AC/V DC	15 - 264	
ŀ	<u>ec</u>		PNP	V	√
			NPN		√
		Output	NPN/PNP	V	
			relay	√	
			other		0 - 10V
			cable	√	√
	Connection	connector	√	√	
			terminal block		
		Dimensions (mm)		18 x 50 x 50	15 x 50 x 50
		Housing material		ABS	ABS
		Mechanical protection		IP65	IP67

Compact





S62	S90
	0 - 20m 0 - 60m
0.5 - 8.5m 0.3 - 20m 🛕 cl.2	0 - 3.2m (coaxial) 0.1 - 6.5m 0.1 - 20m
	0 - 1.7m (coaxial)
	10 - 1000mm 50 - 2000mm 0 - 600mm
30 - 300mm 60 - 600mm 60 - 1200mm 200 - 2000mm 30 - 150mm 50 - 350mm	70 - 200mm 50 - 100mm 🛕 cl.1
	70 - 200mm
40 - 120mm 🛕 ^{cl.2}	
10 - 30 🕪 🕑	10 - 30 🖫 🕻
√	√
√	√
√	
√	V
18 x 50 x 50	15 x 50 x 41
ABS	Zinc aluminum alloy
IP67	IP67
11 07	II U/



Universal Photoelectric Sensors





Heavy Duty

	Series		SA1U	S20
	Through-beam	I → I	0 - 50m	0.1 - 50m
a Dist	Retro-reflective (using R2 reflector)	I		
Operating Distances	Polarized retro-reflective (using R2 reflector)	121	0.2 - 7m	0.1 - 8m
0	Diffuse	IZI	0 - 1m	0.1 - 2m
	Background suppression	IZIX	0.2 - 2m	100 - 500mm
ata		V DC	10 - 30 🕪 🗸	10 - 30 🕪 🗸
	Power supply	V AC		
Technical Data		V AC/V DC	21.6 - 264 AC 10.8 - 264 DC	
<u> </u>		PNP	$\sqrt{}$	√
		NPN	$\sqrt{}$	\checkmark
	Output	NPN/PNP		
		relay	$\sqrt{}$	
		other		
		cable		
	Connection	connector		√
		terminal block	√	
	Dimensions (mm)		25 x 67.5 x 90	26 x 65 x 55
	Housing material		PBT	ABS
	Mechanical protection		IP67	IP66

Heavy Duty



S30
0 - 50m
0.1 - 10m
0.05 - 2m
0.2 - 1.1m
10 - 30 🕑
17 - 264
V
\checkmark
V
\checkmark
$\sqrt{}$
32 x 85 x 73
polycarbonate
IP67



SR21 Series

High-resolution 2mm fork/slot sensors for labeling & packaging

- 25kHz high switching frequency
- IR or red/green light models
- Detection of semi-transparent labels
- Detection of registration marks on transparent objects
- 4 wire NPN & PNP outputs



The SR21 series fork/slot sensors, with a 2mm slot width, have a 12-bit (4096 steps) resolution, a quick 20µs response time and a switching frequency of 25kHz. The switching threshold is set by simply pressing a pushbutton, or can be done dynamically during label (or other reference) movement. The SR21-IR model with infrared emission is ideal for label or hole detection on continuous reels. With red or green emission (automatically selected), the SR21-RG model is perfect for automated packaging (for example, for print registration color mark detection on transparent films).

LD46 Series

Luminescence sensors in metal housing

- UV high power LED emission
- High sensitivity for fluorescent marks
- 10 100mm detection distance
- 2kHz switching frequency
- NPN/PNP & 0-5V analog outputs



With operating distances ranging from 10 to 100mm, the LD46 series UV LED emission luminescence sensors have models for typical industrial applications. A model able to detect fluorescent marks, including thin or not clearly marked lines on uneven reflective tiles, is available for the ceramic industry. High-power models for luminescent mark detection at longer operating distances, even on very irregular surfaces, are available for wood-working machines. Another model, specifically developed for the pharmaceutical industry, can detect labels on glass vials, or paper sheets in pharmaceutical packaging.

LD50 Series

Luminescence sensor in plastic housing

- UV high power LED emission
- Plastic housing
- 10mm detection distance
- 2kHz switching frequency
- Dual NPN & PNP outputs



The LD50 series of UV LED emission luminescence sensors has been developed as a cost-effective solution with accurate performance and innovative design. The LD50 is especially suited to applications in compact machines where space is limited. The rugged plastic housing ensures easy and flexible integration into many different environments. The LD50 is typically used in pharmaceutical and cosmetic industries to detect labels on bottles, and in automated packaging applications to detect white paper or fluorescent glues. The M12 4 pole connector offers simple and fast connections.

Product Overview

TL46 Series

Contrast sensor line in standard metal housing

- RGB LED emission
- Basic, standard & enhanced models
- Manual & dynamic Teach button
- 30kHz switching frequency
- NPN/PNP & 0-5V analog outputs



The TL46 contrast sensor line is available in three different models. The TL46-W basic model has only one setting pushbutton, two indicator LEDs and its performance provides maximum value at a great price. The TL46-WL standard model has three pushbuttons and a bargraph for manual, automatic or manual threshold setting, and provides maximum contrast resolution detection for either color or grayscale objects with a 20kHz switching frequency. The TL46-WLF enhanced model offers a 4-digit display enabling the setting of advanced functions, and can reach a switching frequency of 30kHz.

TL50 Series

Contrast sensors in plastic housing

- RGB LED emission
- 9mm operating distance
- Automatic Teach button
- 15kHz switching frequency
- Dual NPN & PNP outputs



Contrast sensors have become an essential part of automated production processes. With static 2 point Teach points (mark and background) the TL50 is set using a Teach button on the sensor. The RGB emission (red, green and blue), means maximum detection for each Teach operation, and the sensor independently selects which of the three emitter diodes to use. The compact design is a cost-effective alternative for standard applications with good sensing performance. The tough plastic housing provides for easy and flexible integration into many different environments.

S80 Series

Laser distance sensors with Time-of-flight & laser emission

- Class 2 visible red laser emission
- Direct proximity measurement from 4 to 7m
- 20 to 100m retro-reflective measurement
- Precise & quick measurements
- PNP/NPN, 4-20mA outputs & RS485 serial



The S80 distance sensor offers a Time-offlight measurement between the emission and receipt of class 2 laser pulses. The S80-Y0 and YL0 sensors function as direct proximity up to 4m, or with scaled range up to 7m, for object positioning or double threshold on long distance background suppression. The S80-Y1 and Y2 sensors, with operating distances from 20 to 100m, function as retro-reflective sensors, measuring the distance from a reflector mounted over the object. They are used for position detection applications in automated warehouses or conveyor lines. Two NPN or PNP outputs can be set at different distances. Measurement can be determined by a 4 - 20mA analog output, by a RS485 serial interface, or by a 4-digit display on the sensor.

S81 Series

Cost-effective distance sensor

- Class 2 visible red laser emission
- Plastic housing
- Measurement up to 4m
- 2 PNP/NPN digital outputs
- 0-10V analog output or alarm output



The S81 series is a line of distance measurement sensors. Based on time-of-flight technology, the S81 series ensures precision and measurement speed, and can be used at distances up to 4m for object positioning or long distance background suppression. The sensor setup is very quick with two pushbuttons, one for each digital output. The product is available in two different models: one offers an analog output proportional to the result of the distance measurement, the other allows the user to receive an alarm signal according to the operating conditions of the lens. The S81-Y model has a scalable 0-10V analog output that configures minimum and maximum operating distances, and the minimum and maximum voltage. The S81 series offers a solution for automated warehouses, access control, wood industries and parking lot applications.

S62-Y Series

High-resolution distance sensor

- Class 2 visible laser emissions
- Operating range 40 120mm
- 50µm resolution
- Linearity < 0.1%
- 0.5 x 0.75mm spot at focus distance



Based on optical triangulation technology, the S62-Y series offers very accurate distance measurement. The light is a Class 2 red laser and the receiver is a CCD component that is immune to reflections from shiny and irregularly shaped objects. The S62-Y is especially suitable for very fast applications, up to 1kHz. Measurements are calculated using a 4-20mA or 0-10V analog output or an RS485 serial port. The serial protocol allows remote setting using a PC based graphical interface. Typical applications are for the verification of products, metal working, positioning for assembly lines and pickand-place machines.

AS1 Series

AREAsensor™ high-resolution photoelectric light grids

- Area sensors with crossed beams
- 100mm height
- Operating distance 3m
- PNP output, scan mode input & potentiometer adjustment



The AS1 series AREAsensor™ photoelectric light grids with cross-beams are able to detect objects, as small as 0.2mm thick, inside a 100mm height, over distances up to 3m between emitter and receiver. The AS1 area sensors are an ideal solution for the detection of very small objects, even when moving or in varying positions inside a controlled height and width. The ultra-compact AS1 light grids are perfect for fast conveyor lines, and for object detection and counting in random positions. Versions with potentiometer sensitivity adjustment and optical synchronism are available.

Product Overview

DS1 Series

AREAscan™ detection and measurement light grids with analog output

- Position and dimension measurement
- 4mm resolution and 1ms response time
- 100 to 300mm height
- Operating distance up to 4m
- PNP digital and 0-10V analog outputs
- Potentiometer adjustment



Compact multibeam light grids, the DS1 AREAscan™ series are suitable for the detection and measurement of objects with different shapes and dimensions. Models are available with 100, 150 and 300mm heights, 4mm resolution and operating distances up to 4m. The electronics are fully integrated so no external controllers are required. The measurement value is supplied through an analog 0-10V output that is proportional to the number of interrupted beams. The PNP digital output is activated every time a beam between the emitter and receiver is interrupted. Response time, ranging from 1 to less than 3ms, depending on the height and measurement resolution, allows installation on the fastest machines and processes. Versions with potentiometer sensitivity adjustment are available.

DS2 Series

AREAscan™ detection and measurement light grids with serial interface

- Automatic material handling
- 6 or 25mm resolution models
- 150 1650mm heights
- Operating distance up to 10m
- PNP digital, 0-10V analog and RS485



The AREAscan™ light grids, from the DS2 series, cover heights ranging from 150 to 1650mm, with 5m operating distances for 6mm resolution models, or 10m for 25mm resolution models. The measurement configuration can be set manually using internal dip-switches, or using a graphical interface from a remote PC via the serial port. Once the program is loaded on the flash memory, the device functions in stand-alone mode. The serial interface transmits measurements in binary or ASCII code, operating status control, as well as the setting of different baud-rate models. The DS2 light grids are perfect for automated material handling environments and different height or dimensional measurement applications.

US Series

Ultrasonic sensors

- Standard M18 or M30 tubular housing
- Axial or radial emission
- Digital NPN and PNP outputs
- 4-20mA or 0-10V analog output
- High resolution



The US series ultrasonic sensors offer axial or radial emission for M18 models and radial for M30 models, with either NPN/ PNP digital or 4-20mA / 0-10V analog outputs. The main features include a 5ms response time and resolution up to 0.5mm. The sensors can be set for one or more values using the Teach button. They can also be set for distance or presence control up to 2m, with background and foreground suppression. The ultrasonic sensors detect targets regardless of transparency, color or material that doesn't absorb sound. US series applications include automated packaging, as well as automotive and manufacturing industries.





Fork/Slot Sensors

	Series		SR21	SR22
ances	Fork/Slot sensor		2mm	2mm
Operating Distances	Slot depth		50mm	40mm
0 perat	Switching frequency		25kHz	10kHz
	Light emission		IR LED Red / green LED	IR LED
	Setting		AUTO-SET button	Potentiometer
ata		V DC	10 - 30 🕪 🗸	24 ± 15% 🕜
Technical Data	Power supply	V AC		
nic		V AC/V DC		
leck		PNP	$\sqrt{}$	$\sqrt{}$
·		NPN	$\sqrt{}$	$\sqrt{}$
	Output	NPN/PNP		
		relay (SCR)		
		other		
		cable		
	Connection	connector	$\sqrt{}$	$\sqrt{}$
		terminal block		
	Dimensions (mm)		20 x 90 x 26	14 x 68 x 37
	Housing material		Zinc aluminum alloy	Aluminium
	Mechanical protection		IP65	IP60







Luminescence Sensors

Lummooodii oo oonii oo oo				
	Series		LDμ	LD46
ances	Luminescence sensor		10 - 100mm	10 - 100mm
Operating Distances	Luminescence sensor with fiber optics	>	0 - 30mm	
peratii	Switching frequency		2kHz	2kHz
0	Light emission		UV LED	UV LED
	Setting		MARK & BACKGROUND buttons	+/- SET buttons
ata	Power supply	V DC	10 - 30 🕑	15 - 30 🕪 🕑
Technical Data		V AC		
hnic		V AC/V DC		
Joel	Output	PNP	$\sqrt{}$	
		NPN	\checkmark	
		NPN/PNP		$\sqrt{}$
		relay		
		other	0 - 7V	0 - 5V
		cable	$\sqrt{}$	$\sqrt{}$
	Connection	connector	$\sqrt{}$	$\sqrt{}$
	terminal block			
	Dimensions (mm) Housing material		31 x 81 x 58	31 x 81 x 58
			Zinc aluminum alloy	Aluminium
	Mechanical protection		IP67	IP67

Luminescence









LD50	S90-U	\$60-U	S50-U
0 - 60mm	0 - 40mm	0 - 40mm	8 - 20mm
2kHz	2kHz	2kHz	1kHz
UV LED	UV LED	UV LED	UV LED
+/- buttons	SET button	SET button	SET button
15 - 30 🕪 🗸	10 - 30 🖭 🕻	10 - 30 🕪 🗸	10 - 30 🕪 🗸
	$\sqrt{}$	√	√
	√	√ √	v √
√			
		,	,
		√	√
√	√	√	√
31 x 81 x 53	15 x 50 x 41	15 x 50 x 50	M18 x 55/68
ABS	Zinc aluminum alloy	ABS	PBT Ni plated brass
IP67	IP67	IP67	IP67





Contrast & Color Sensors

	Series		ТЦ	TL46
Operating Distances	Contrast sensor		6 - 60mm	6 - 60mm
ng Dist	Contrast sensor with fiber optics	>	0 - 3mm 0 - 10mm	
perati	Color sensor	RGB		
5	Switching frequency		10kHz 20kHz	15kHz 20kHz 30kHz
	Light emission		Red / green LED white LED	RGB LED
	Serial interface			
	Setting		MARK & BACKGROUND buttons	+/- SET buttons
ata		V DC	10 - 30 🕜	10 - 30 🕪 🗸
Technical Data	Power supply	V AC		
in in		V AC/V DC		
Тес		PNP	$\sqrt{}$	
		NPN	V	
	Output	NPN/PNP		V
		relay (SCR)		
		other	0 - 5V	0 - 5V
		cable	$\sqrt{}$	$\sqrt{}$
	Connection	connector	$\sqrt{}$	V
		pigtail		
	Dimensions (mm)		31 x 81 x 58	31 x 81 x 58
	Housing material		Zinc aluminum alloy	Aluminium
	Mechanical protection		IP67	IP67

Contrast & Color









TL50	S65-W	S65-V	\$8-W
6 - 22mm	12 - 20mm		10mm
		5 - 45mm	
15kHz	30kHz	1.5kHz (V09 model) 500Hz (V19 model)	10kHz
RGB LED	White LED	RGB LED	RGB LED
	RS485	RS485	
MARK & BACKGROUND buttons	+/- SET buttons	SET & SEL buttons	Teach button
10 - 30 🕪 🗲	10 - 30 🕪 🗸	10 - 30 🕪 🗸	12 - 30 🕪 🕻
	\checkmark	$\sqrt{}$	$\sqrt{}$
	\checkmark	$\sqrt{}$	$\sqrt{}$
√			
	0 - 5V		
		√	√
	•		√
31 x 81 x 53	50 x 50 x 25	50 x 50 x 25	14 x 42 x 25
ABS	ABS	ABS	ABS





Distance Sensors

	Series		S80-Y0	S80-YL0
ances	Distance sensor		0.3 - 4m	0.3 - 7m
Operating Distances	Digital resolution		0.9mm	0.4mm
) Jperati	Linearity		0.3%	0.3%
J	Switching frequency		100Hz (Normal) 500Hz (Fast)	100Hz
	Light emission		Red laser $\triangle^{cl.2}$	Red laser 🛆 cl.2
	Response time		5ms (Normal) 1ms (Fast)	5ms
	Serial interface		RS485	RS485
	Setting		Teach button	Teach button
	Hysteresis	Hysteresis		
ata		V DC	15 - 30 🖖 📞	15 - 30 🕪 🕻
Technical Data	Power supply	V AC		
h je		V AC/V DC		
Тес		PNP	$\sqrt{}$	$\sqrt{}$
		NPN	√	√
	Output	NPN/PNP		
		relay (SCR)		
		other	4 - 20mA	4 - 20mA
		cable		
	Connection	connector	M12 8-poles	M12 8-poles
	Dimensions (mm)	terminal block	24 00 72	24 , 00 , 72
	Dimensions (mm)		34 x 90 x 73 Aluminium	34 x 90 x 73 Aluminium
	Housing material Mechanical protection		IP67	IP67
	iviecilatiicai protection		IF U /	IF U /









0.3 - 20.3m (using R80 reflector) 0.3 - 4m 50 - 150mm 0.6mm 6mm 0.9mm < 50µm 0.25% 0.15% < 1% < 0.1% 100Hz (Normal) 500Hz (Fast) 100Hz (Normal) 500Hz (Fast) 80Hz 1kHz Red laser	S80-Y1	S80-Y2	S81	S62-Y
0.25% 0.15% <1% <0.1% 100Hz (Normal) 500Hz (Fast) 80Hz 1kHz Red laser			0.3 - 4m	50 - 150mm
100Hz (Normal) 500Hz (Fast) 80Hz 1kHz Red laser	0.6mm	6mm	0.9mm	< 50μm
S00Hz (Fast) 500Hz (Fast) 80Hz 1KHZ Red laser	0.25%	0.15%	<1%	< 0.1%
5ms (Normal) 1ms (Fast) 5ms (Normal) 1ms (Fast) 6ms 1ms RS485 RS485 RS485 Teach button Teach button Teach button 30mm (M models) 30mm (M models) 15 - 30			80Hz	1kHz
1ms (Fast) 1ms (Fast) ones Ims RS485 RS485 RS485 Teach button Teach button 30mm (M models) 15 - 30	Red laser 🛕 cl.2	Red laser $\triangle^{cl.2}$	Red laser $\triangle^{cl.2}$	Red laser $\triangle^{cl.2}$
Teach button Teach button Teach button 30mm (M models) 15 - 30 ♠ ← 15 - 30 ♠ ← 12 - 24 ♠ ← √ √ √ √			6ms	1ms
30mm (M models) 15 - 30	RS485	RS485		RS485
15 - 30 ♠	Teach button	Teach button	Teach button	Teach button
√ √ √ √ √ √ 0 - 10V or 4 - 20mA M12 8-poles M12 8-poles M12 8-poles M12 8-poles 34 x 90 x 73 53 x 31 x 80 18 x 50 x 50			30mm (M models)	
√ √ 4 - 20mA 0 - 10V 0 - 10V or 4 - 20mA M12 8-poles M12 8-poles M12 5-poles 34 x 90 x 73 34 x 90 x 73 53 x 31 x 80 18 x 50 x 50	15 - 30 🕪 🕑	15 - 30 🕪 🕑	15 - 30 🕪 🕻	12 - 24 🖫 🕑
√ √ 4 - 20mA 0 - 10V 0 - 10V or 4 - 20mA M12 8-poles M12 8-poles M12 5-poles 34 x 90 x 73 34 x 90 x 73 53 x 31 x 80 18 x 50 x 50				
4 - 20mA 4 - 20mA 0 - 10V 0 - 10V or 4 - 20mA M12 8-poles M12 8-poles M12 5-poles M12 8-poles 34 x 90 x 73 34 x 90 x 73 53 x 31 x 80 18 x 50 x 50	V	√	$\sqrt{}$	
M12 8-poles M12 8-poles M12 5-poles M12 8-poles 34 x 90 x 73 34 x 90 x 73 53 x 31 x 80 18 x 50 x 50	V	V	V	
M12 8-poles M12 8-poles M12 5-poles M12 8-poles 34 x 90 x 73 34 x 90 x 73 53 x 31 x 80 18 x 50 x 50				
34 x 90 x 73	4 - 20mA	4 - 20mA	0 - 10V	0 - 10V or 4 - 20mA
34 x 90 x 73				
	M12 8-poles	M12 8-poles	M12 5-poles	M12 8-poles
	34 x 90 x 73	34 x 90 x 73	53 x 31 x 80	18 x 50 x 50
Automatical Automa				
IP67 IP67 IP67 IP67				



Light Grid Sensors

	Series		AS1-HR	AS1-SR
ances	Area sensor (height)		100mm	100mm
Operating Distances	Light grid (height)	Area		
) perati	Resolution		0.2 x 75mm ø6mm	0.2 x 200mm ø18mm
3	Number of beams		16	6
	Switching frequency		500Hz	500Hz
	Light emission		IR	IR
	Response time		2.75 - 8ms	1.75ms
	Serial interface			
	Operating distance		0.3 - 2.1m 0.8 - 3m	0.3 - 2.1m 0.8 - 3m
	Setting		Potentiometer models	Potentiometer models
ata		V DC	10 - 30 🕪 🗸	10 - 30 🕪 🗸
	Power supply			10 00 5
cal D	Power supply	V AC	.0 00 -	10 00 0
chnical D	Power supply	V AC		
Technical Data	Power supply	V AC V AC/V DC PNP	√	√
Technical D		V AC V AC/V DC PNP NPN		
Technical D	Power supply Output	V AC V AC/V DC PNP NPN NPN/PNP		
Technical D		V AC V AC/V DC PNP NPN NPN/PNP relay		
Technical D		V AC V AC/V DC PNP NPN NPN/PNP relay other		
Technical D	Output	V AC V AC/V DC PNP NPN NPN/PNP relay other cable	√	√
Technical D		V AC V AC/V DC PNP NPN NPN/PNP relay other		
Technical D	Output	V AC V AC/V DC PNP NPN NPN/PNP relay other cable	√	√ √
Technical D	Output Connection Dimensions (mm)	V AC V AC/V DC PNP NPN NPN/PNP relay other cable	√ √ 20 x 41 x 150	√ √ 20 x 41 x 150
Technical D	Output	V AC V AC/V DC PNP NPN NPN/PNP relay other cable	√	√ √







DS1	DS2	DS3
100 - 300mm	150 - 1650mm	150 - 600mm
4/7mm	6/25mm	0.5/0.8mm (crossed beams) 6mm (parallel beams)
16 - 48	21 - 231 (res = 6mm) 18 - 36 (res = 25mm)	24 - 96
IR	IR	IR
1 - 2.75ms	5 - 90ms	3 - 12ms (crossed beams) 23 - 92ms (parallel beams)
	RS485	
0.15 - 0.8m 0.15 - 2.1m 0.2 - 4m	0.3 - 5m	0.2 - 2m
Potentiometer models	Dip-switches Graphical interface	Teach button
24 🕦 🕜	24 🕦 🖸	24 🕪 🖸
V	V	√
0 - 10V	0 - 10V	0 - 10V
M12 4-poles for TX M12 5-poles for RX	M12 4-poles for TX M12 8-poles for RX	M12 4-poles for TX M12 8-poles for RX
20 x 41	35 x 40	35 x 40
Aluminium	Aluminium	Aluminium
IP65	IP65	IP65





Line & Ultrasonic Sensors

	Series		\$65-Z	US18
ances	Line sensor	I∢	150mm	
g Dista	Ultrasonic sensor			30 - 300mm
Operating Distances	Resolution			± 1mm (2.5ms) ± 0.5mm (30ms)
ō	Number of beams		1 (retro-reflective)	
	Light emission		IR	
	Response time		3.8ms	
	Serial interface		RS485	
	Setting		Teach button	Teach button
	Operating distance		200mmm	30 - 300mm
	Hysteresis			0.7mm
ata		V DC	10 - 30 🕪 🗸	10 - 30 🕑
Technical Data	Power supply	V AC		
hnic		V AC/V DC		
Tec		PNP		
		NPN		
	Output	NPN/PNP	$\sqrt{}$	$\sqrt{}$
		relay		
		other	4 - 20mA	4 - 20mA / 0 - 10 V
		cable		
	Connection	connector	M12 8-poles	M12 5-poles
		terminal block		
	Dimensions (mm)		25 x 50 x 50	18 x 91 (axial) 18 x 95 (radial)
	Housing material		ABS	Polyester
	Mechanical protection		IP67	IP67

Line & Ultrasonic



US30
0.1 - 1m 0.2 - 2m
0.1% Distance
Teach button
0.2 - 1m 0.3 - 2m
2mm
10 - 30 🗨
√
4 - 20mA / 0 - 10 V
M12 5-poles
M12 5-poles



Accessories

Prismatic Reflectors

R Series

Prismatic reflectors are used with retroreflective photoelectric sensors with IR or visible red light emission polarized light. Wide range of dimensions, shapes and mounting possibilities are available.

- Standard R2, R5 and R9 reflectors with 48mm, 75mm and 23mm diameters
- High-efficiency R4 and R6 reflectors for longer operating distances
- R10 and R11 reflectors suitable for specific applications, requiring wider surface areas
- R7, R8 and R20 microprism reflectors suitable for high-resolution detection are available for laser sensors
- IP67 protection with -30°C to +70°C temperature ranges
- Reflective self-adhesive films that can be cut in different shapes and dimensions are available on request, (including for polarized light)



Universal Fiber Optics OF Series

Complete range of standard plastic fiber optics for through-beam, diffuse and co-axial diffuse functions. Terminals, that can be cut to the correct length, can be connected to all sensors with standard ø2.2mm mounting openings. Focusing and deviating lenses, metal sheaths, 1 to 2.2mm diameter adapters and a universal cutting tool are available.

- High-temperature fibers reaching 125°C
- Extra-flexible fibers with a bending radius of only 2mm
- High-efficiency fibers
- Coiled fibers that extend up to 2m
- Thin fibers with 1mm external diameter



Application Fiber Optics OFA Series

Advanced fiber optics for critical applications. All fibers have terminals that can be cut to the correct length and are recommended for use with the S7 series high-resolution sensors.

- Versions with parallel beam fiber array for through-beam and diffuse detection
- Fixed focus and background suppression models with axial, radial or lateral optics
- Diffuse model with 90° optics in a 3.8mm diameter





Connectors

CS Series

All connectors are prewired with a standard 4-pole configuration and are available in 3, 5, 7 or 10m lengths. M12 connectors, in a standard 3-pole configuration or with a yellow signaling LED for PNP outputs and a green LED power indicator, are also available. The connector housing is plastic and the cable is PVC.



Mounting Brackets

ST Series

Complete range of mounting brackets for universal photoelectric sensors. Plastic or metal supports for M18 tubular sensors available with both fixed and adjustable sensor optic axis, reaching 15° in every direction along a 360° radius. They are also shock and vibration resistant.



Proximity Sensors

IS Series

Inductive proximity sensors

- M4 to M30 tubular housing
- Stainless steel models
- 1 20mm detection distance
- 10 30V DC, 2, 3 or 4 wire NPN/PNP models
- 24 230V AC, 2 wire models



Inductive sensors can provide a complementary solution to photoelectric sensors in applications based on critical light reflection and transmission. If a metal object (iron, aluminium, copper, brass, etc.) enters the sensor's detection field, it causes a change in the output status. Inductive sensors can be used for non-contact detection of metal targets.



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Inductive Sensors

	Series		IS-4/IS-5
ances	Operating distance		0.8mm
ng Dist	Repeatibility	≤1%	
Operating Distances	Hysteresis		< 10%
0	Ripple		≤ 10%
	Switching frequency		2000Hz
	Indicators		Yellow LED
ata		V DC	10 - 30, 3 wire 🕪
Technical Data	Power supply	V AC	
h nic		V AC/V DC	
Тес		2 wires NO/NC	
		3 wires NPN/PNP NO/NC	$\sqrt{}$
	Output	4 wires NPN/PNP NO+NC	
		4 wires programmable	
		other	
		cable	$\sqrt{}$
	Connection	M8 connector	$\sqrt{}$
		M12 connector	
	Housing		Standard
	Housing material		Stainless steel
	Mechanical protection		IP67

Proximity Sensors



Inductive Sensors

	Series		IS-8	
ances	Operating distance	Operating distance		2mm, Shielded 3mm, Unshielded
ıg Dist	Repeatibility		≤ 3%	≤ 3%
Operating Distances	Hysteresis		< 10%	< 10%
0	Ripple		≤ 10%	≤ 10%
	Switching frequency		1000Hz	500Hz
	Indicators		Yellow LED	Yellow LED
Technical Data	_	V DC	10 - 30, 3 wire (L)	10 - 30, 2 Wires (!)
ical	Power supply	V AC		
늉		V AC/V DC		
<u> </u>		2 wires NO/NC	√	$\sqrt{}$
		3 wires NPN/PNP NO/NC	\checkmark	$\sqrt{}$
	Output	4 wires NPN/PNP NO+NC		
		4 wires programmable		
		other		
		cable	\checkmark	$\sqrt{}$
	Connection	M8 connector	\checkmark	$\sqrt{}$
		M12 connector	\checkmark	$\sqrt{}$
	Housing Mousing material		Standard Short	Standard Short
			Ni Plated brass	Ni Plated brass
	Mechanical protection		IP67	IP67







IS-12		IS	-18	IS-30	
2mm, Shielded 4mm, Unshielded	4mm, Shielded 8mm, Unshielded	5mm, Shielded 8mm, Unshielded	8mm, Shielded 14mm, Unshielded	10mm, Shielded 15mm, Unshielded	15mm, Shielded 20mm, Unshielded
≤ 3%	≤ 3%	≤ 3%	≤ 3%	≤ 3%	≤ 3%
< 10%	< 10%	< 10%	< 10%	< 10%	< 10%
≤ 10%	≤ 10%	≤ 10%	≤ 10% ≤ 10%		≤ 10%
1000Hz	500Hz	1000Hz	400Hz 300Hz		200Hz
Yellow LED	Yellow LED	Yellow LED	Yellow LED	Yellow LED	Yellow LED
10 - 30, 2, 3 & 4 Wires ())	10 - 30, 2, 3 & 4 Wires (1)	10 - 30, 2, 3 & 4 Wires (!)	10 - 30, 2, 3 & 4 Wires (1)	10 - 30, 2, 3 & 4 Wires (4)	10 - 30, 2, 3 & 4 Wires ())
$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$
$\sqrt{}$	$\sqrt{}$	V	\checkmark	\checkmark	\checkmark
$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$
√	V	$\sqrt{}$	V	V	V
√	$\sqrt{}$	$\sqrt{}$	V	$\sqrt{}$	√
V	V	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$
V	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	\checkmark	$\sqrt{}$
Standard Short	Standard Short	Standard Short	Standard Short	Standard Short	Standard Short
Ni Plated brass Stainless steel	Ni Plated brass Stainless steel	Ni Plated brass Stainless steel	Ni Plated brass Stainless steel	Ni Plated brass	Ni Plated brass
IP67	IP67	IP67	IP67	IP67	IP67

Smart Vision Sensors

SVS1 Series

Plug-and-play vision sensor

- Real embedded vision sensor
- Quick setup via VSC unit
- No PC needed
- Real time monitoring
- Single control inspection



One of the easiest solutions for machine vision applications, the SVS1 series is a completely embedded vision sensor. The setup is very quick and intuitive thanks to the VSC unit, the external configurator with a 3.5" color display and pushbuttons. No PC is needed for configuration. The image processing is done inside the sensor, which is able to work in standalone mode after setup. The VSC unit can provide real-time monitoring of images, but it is not required during functioning of the sensor. As a result, it can be disconnected and used to setup multiple sensors. The SVS1 allows single control of each image, and offers different kinds of tools to solve several tasks: product orientation on conveyor belts, presence/ absence on assembly lines, overprinting controls on packaging machines.

SVS2 Series

Stand-alone vision sensor

- Flexible setup via PC
- Ethernet communication
- Object recognition or identification tools
- 360° pattern matching
- Multiple control inspections



The SVS2 series of vision sensors has all the characteristics needed to solve artificial machine vision problems in a flexible and intuitive manner. The setup of the SVS2 is carried-out on a PC using an Ethernet connection, ensuring a high level of flexibility. An easy-to-use graphical user interface leads the user step-by-step in the inspection creation process. Different models using different software tools are available: object recognition, advanced object recognition (with 360° pattern matching). and identification (barcode, datamatrix and OCV). The sensor can store up to 20 different inspections that can be selected using digital pulses or via Ethernet. The sensor is able to carry-out different controls on the same object, thus reducing installation time and costs

SIL Series

Illuminators for industrial artificial vision

- Linear, ring, spot or backlight models
- Red, blue, green, white or IR light LED
- IP65 housing
- Visible red laser



The solid state SIL illuminators have been developed to offer a complete range of industrial lighting solutions for machine vision illumination. They are great for many applications such as bar code readers and visual checking, and also as lighting for microscopes. Many different SIL models are available including line, area, back, ring or spotlight, to satisfy industrial lighting requirements. Red, blue, green, white or IR emission LEDs and lenses with different emission angles are available. A new visible red laser model is also available, as well as models with a continuous light or a strobe light with a control unit. Sturdy metal housing ensures mechanical protection, and connection is fast and easy thanks to standard M8 4-pole connectors.



Smart Vision Camera Sensors

	Series		SVS1	SVS2
ınces	Category		Vision Sensor	Vision Sensor
g Diste	Resolution		640 x 480	640 x 480
Operating Distances	Frames per second		up to 60	up to 60
ō	Illumination		Integrated	Integrated
	Connectivity		Configurator connection	Ethernet
	Serial interface			RS 232
	Configuration		VSC Configurator	PC Graphical user interface
	Interface		Stand-alone	Stand-alone
	Lenses		6/8/12/16mm	6/8/12/16mm
	Functions		Measurement & inspection	Measurement & inspection or identification
Jata	Power supply	V DC	24 © C	24 & C
Technical Data		V AC		
Ä		V AC/V DC		
Tec	Output	PNP	$\sqrt{}$	$\sqrt{}$
		NPN		
		NPN/PNP		
		relay (triac)		
		other		
	Connection	cable		
		connector	2x M12 8-poles	2x M12 8-poles/M12 4-poles
		terminal block		
	Dimensions (mm)		52 x 58 x 40	52 x 58 x 40
	Housing material Mechanical protection		Aluminium/plastic	Aluminium/plastic
			IP50	IP50

Smart Vision Sensors



Configurators & Monitors

Configurators & Monitors						
	Series		VSC	VSM		
ances	Display		3.5" TFT LCD	3.5" TFT LCD		
ig Dista	Functions		SVS1 Sensor setup real time monitoring	SVS2 Sensor monitoring		
Operating Distances	Resolution		320 x 240	320 x 240		
0	Mounting		DIN-Rail or panel	DIN-Rail or panel		
	User interface		8 Buttons 8 LEDs	8 Buttons 8 LEDs		
ata	Power supply	V DC	via SVS1 sensor	24		
al D		V AC				
hnic		V AC/V DC				
Tec	Output	PNP				
		NPN				
		NPN/PNP				
		relay (triac)				
		other				
	Connection	cable				
		connector	M12 8-poles	M12 8-poles		
		terminal block				
	Dimensions (mm)		96 x 96 x40	96 x 96 x40		
	Housing material Mechanical protection		Plastic	Plastic		
			IP40	IP40		

Configurators, Monitors & Illuminators



Illuminators

	Series		SIL	
Inces	Models	*	Line, Area, Ring, Spot, Back	Laser
g Dista	Driver		Integrated or external	Integrated
Operating Distances	Light Source		Power LED	Laser 650mm
0	Lenses		Power optics	
	Light emission		Red / green / blue / white / IR	Red
	Emission angles		6° - 25° - 45° - 10 x 30°	60°
	Strobe signal		5 - 24V DC	0 - 30V DC
	Light intensity at 500mm Laser class		250 - 1000lux	
				5mW 🛕 cl.3
ata	Power supply	V DC	24	5 - 24
Technical Data		V AC		
Ä		V AC/V DC		
Tec	Output	PNP		
		NPN		
		NPN/PNP		
		relay (triac)		
	Connection	other cable		
		connector	M8 4-poles	M12 4-poles
		terminal block		WI12 + poics
	Dimensions (mm)		96 x 96 x 40	96 x 96 x 40
	Housing material		Aluminium	Aluminium
	Mechanical protection		IP65	IP65



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