IDEC-DATASENSOR Optical Sensing Devices

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 through-beam. 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 suppression, 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.

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 retro-reflective, 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

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

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

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.

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 quick with the EASYtouch™ system or potentiometer adjustment in more cost-effective models.

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 retro-reflective 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.

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 retro-reflective 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 retro-reflective 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

Series		S15	S51
Operating Distances			
Through-beam	▶	0 - 20m	0 - 20m
Retro-reflective (using R2 reflector)		0.1 - 4m	0.1 - 4m
Polarized retro-reflective (using R2 reflector)		0.1 - 3m	0.1 - 3m
Retro-reflective for transparent objects (using R2 reflector)			
Diffuse		10 - 100mm 10 - 350mm	0 - 100mm 10 - 450mm
Fixed focus			
Background suppression			
Foreground suppression			
Distance sensor			
Through-beam with fiber optic			
Diffuse with fiber optic			
Technical Data			
Power supply	V DC	12 - 30 Ⓤ C	10 - 30 Ⓤ C
	V AC		
	V AC/V DC		
Output	PNP	√	√
	NPN	√	√
	NPN/PNP		
	relay (SCR)		
	other		
Connection	cable	√	√
	connector		√
	pigtail	√	
Dimensions (mm)		M18 x 40	M18 x 55/68
Housing material		ABS	PBT Ni plated brass
Mechanical protection		IP69K	IP67

	S5	S50	S10
	0 - 12m	0 - 30m 0 - 60m ⚠ cl.1	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 ⚠ cl.1	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		
	√	√	√
	√	√	√
	(√)		
		0 - 10V	
	√	√	
	√	√	√
	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
Operating Distances	Through-beam	�	0 - 15m	0 - 2m
	Retro-reflective (using R2 reflector)	icon		50 - 1500mm
	Polarized retro-reflective (using R2 reflector)	icon	0.05 - 4m	0.1 - 1m
	Retro-reflective for transparent objects (using R2 reflector)	icon		
	Diffuse	icon	0 - 700mm 50 - 150mm	
	Fixed focus	icon		3 - 15mm 3 - 20mm 3 - 30mm 3 - 50mm
	Background suppression	icon	50 - 250mm	
Technical Data	Power supply	V DC	10 - 30 ⓊⓁ Ⓒ	10 - 30 Ⓒ
		V AC		
		V AC/V DC		
	Output	PNP	√	√
		NPN	√	√
		NPN/PNP		
		relay (SCR)		
		other		
	Connection	cable	√	√
		connector	√	
		pigtail		
	Dimensions (mm)		11 x 31 x 19	8 x 23 x 12
	Housing material		PC/PBT	polycarbonate
	Mechanical protection		IP67	IP67

S8
0 - 10m cl.2 0.1 - 5m
0 - 0.8m
0 - 500mm
20 - 200mm cl.2 50 - 300mm
12 - 30
√
√
√
√
14 x 42 x 25
ABS
IP67

Universal Photoelectric Sensors

Miniature & Fiber Optic

	Series		S40	S41
Operating Distances	Through-beam	▐→▌	0.1 - 6m	0.1 - 6m
	Retro-reflective (using R2 reflector)	▐⇄▌	0.1 - 3m	
	Polarized retro-reflective (using R2 reflector)	▐⇄▌	0.1 - 2.5m 0.1 - 6m ⚠ cl.2	0.1 - 2.5m
	Retro-reflective for transparent objects (using R2 reflector)	▐⇄▌	0.1 - 0.7m	0.1 - 0.7m
	Diffuse	▐⇄▌	5 - 300mm 40 - 150mm ⚠ cl.2	2 - 350mm
	Fixed focus	▐⟩▌		110mm
	Background suppression	▐⇄▌✕	15 - 100mm 20 - 60mm ⚠ cl.2	
	Through-beam with fiber optic	▐		
	Diffuse with fiber optic	▐		
Technical Data	Power supply	V DC	10 - 30 ⓊⓁ ⓒ	10 - 30 ⓊⓁ ⓒ
		V AC		
		V AC/V DC		
	Output	PNP	√	√
		NPN	√	√
		NPN/PNP		
		relay (SCR)		
		other		
	Connection	cable	√	√
		connector	√	√
		pigtail		
	Dimensions (mm)		12 x 32 x 20	12 x 32 x 20
	Housing material		ABS	ABS
	Mechanical protection		IP67	IP67

S3	S7
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 ⓊⓁ Ⓒ
√	√
	√
√	
√	√
√	√
13 x 42 x 29	10 x 40 x 65
ABS	ABS
IP66	IP65 IP50 (potentiometer model)

Universal Photoelectric Sensors

Compact

Series		S6	S60
Operating Distances			
Through-beam		0 - 20m	0 - 20m 0 - 60m ⚠ cl.1
Retro-reflective (using R2 reflector)		0.1 - 6m	
Polarized retro-reflective (using R2 reflector)		0.1 - 5m	0 - 3.2m (coaxial) 0.1 - 6.5m 0.1 - 20m ⚠ cl.1
Retro-reflective for transparent objects (using R2 reflector)		0.1 - 1m	0 - 1.7m (coaxial)
Diffuse		10 - 900mm 50 - 2000mm	10 - 1000mm 50 - 2000mm 0 - 600mm ⚠ cl.1
Background suppression		1 - 100mm 30 - 250mm 100 - 500mm	70 - 200mm 50 - 100mm ⚠ cl.1
Foreground suppression		50 - 200mm	70 - 200mm
Distance sensor			50 - 150mm

Technical Data			S6	S60
Power supply	V DC		10 - 30 ⓊL Ⓒ	10 - 30 ⓊL Ⓒ
	V AC			
	V AC/V DC		15 - 264	
Output	PNP		√	√
	NPN			√
	NPN/PNP		√	
	relay		√	
	other			0 - 10V
Connection	cable		√	√
	connector		√	√
	terminal block			
Dimensions (mm)			18 x 50 x 50	15 x 50 x 50
Housing material			ABS	ABS
Mechanical protection			IP65	IP67

S62	S90
	0 - 20m 0 - 60m ⚠ cl.1
0.5 - 8.5m 0.3 - 20m ⚠ cl.2	0 - 3.2m (coaxial) 0.1 - 6.5m 0.1 - 20m ⚠ cl.1
	0 - 1.7m (coaxial)
	10 - 1000mm 50 - 2000mm 0 - 600mm ⚠ cl.1
30 - 300mm 60 - 600mm 60 - 1200mm 200 - 2000mm ⚠ cl.2 30 - 150mm ⚠ cl.2 50 - 350mm ⚠ cl.2	70 - 200mm 50 - 100mm ⚠ cl.1
	70 - 200mm
40 - 120mm ⚠ cl.2	
10 - 30 Ⓤ Ⓒ	10 - 30 Ⓤ Ⓒ
√	√
√	√
√	
√	√
18 x 50 x 50	15 x 50 x 41
ABS	Zinc aluminum alloy
IP67	IP67

Universal Photoelectric Sensors

Heavy Duty

Series			SA1U	S20
Operating Distances	Through-beam	▐▶▌	0 - 50m	0.1 - 50m
	Retro-reflective (using R2 reflector)	▐⇄▌		
	Polarized retro-reflective (using R2 reflector)	▐⇄▌	0.2 - 7m	0.1 - 8m
	Diffuse	▐⇄▌	0 - 1m	0.1 - 2m
	Background suppression	▐⇄▌✕	0.2 - 2m	100 - 500mm
Technical Data	Power supply	V DC	10 - 30 ⓊⓁ C	10 - 30 ⓊⓁ C
		V AC		
		V AC/V DC	21.6 - 264 AC 10.8 - 264 DC	
	Output	PNP	√	√
		NPN	√	√
		NPN/PNP		
		relay	√	
		other		
	Connection	cable		
		connector		√
		terminal block	√	
	Dimensions (mm)		25 x 67.5 x 90	26 x 65 x 55
	Housing material		PBT	ABS
	Mechanical protection		IP67	IP66

S30
0 - 50m
0.1 - 10m
0.05 - 2m
0.2 - 1.1m
10 - 30 ↻
17 - 264
√
√
√
√
√
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

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

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 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).

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.

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.

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 push-button, 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-of-flight 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 pick-and-place machines.

AS1 Series
AREAsensor™ high-resolution photo-electric 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.

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
Operating Distances	Fork/Slot sensor		2mm	2mm
	Slot depth		50mm	40mm
	Switching frequency		25kHz	10kHz
	Light emission		IR LED Red / green LED	IR LED
	Setting		AUTO-SET button	Potentiometer
Technical Data	Power supply	V DC	10 - 30 ⓊⓁ ⟳	24 ± 15% ⟳
		V AC		
		V AC/V DC		
	Output	PNP	√	√
		NPN	√	√
		NPN/PNP		
		relay (SCR)		
		other		
	Connection	cable		
		connector	√	√
		terminal block		
	Dimensions (mm)		20 x 90 x 26	14 x 68 x 37
	Housing material		Zinc aluminum alloy	Aluminium
	Mechanical protection		IP65	IP60

	SRF-30	SRF-50	SRF-80	SRF-120
	30mm	50mm	80mm	120mm
	34mm	54mm	54mm	54mm
	1.5kHz 3kHz cl.2	1.5kHz 3kHz cl.2	1.5kHz 3kHz cl.2	1.5kHz 3kHz cl.2
	Red LED Red laser cl.2	Red LED Red laser cl.2	Red LED Red laser cl.2	Red LED Red laser cl.2
	Potentiometer	Potentiometer	Potentiometer	Potentiometer
	10 - 30	10 - 30	10 - 30	10 - 30
	√	√	√	√
	√	√	√	√
	√	√	√	√
	10 x 50 x 59	10 x 70 x 79	10 x 100 x 79	10 x140 x 84
	Aluminium	Aluminium	Aluminium	Aluminium
	IP65	IP65	IP65	IP65

Application Photoelectric Sensors

Luminescence Sensors

	Series		LDµ	LD46
Operating Distances	Luminescence sensor		10 - 100mm	10 - 100mm
	Luminescence sensor with fiber optics		0 - 30mm	
	Switching frequency		2kHz	2kHz
	Light emission		UV LED	UV LED
	Setting		MARK & BACKGROUND buttons	+/- SET buttons
Technical Data	Power supply	V DC	10 - 30	15 - 30
		V AC		
		V AC/V DC		
	Output	PNP	√	
		NPN	√	
		NPN/PNP		√
		relay		
		other	0 - 7V	0 - 5V
	Connection	cable	√	√
		connector	√	√
		terminal block		
	Dimensions (mm)		31 x 81 x 58	31 x 81 x 58
	Housing material		Zinc aluminum alloy	Aluminium
	Mechanical protection		IP67	IP67

LD50	S90-U	S60-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
	√	√	√
	√	√	√
√			
		√	√
√	√	√	√
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

Application Photoelectric Sensors

Contrast & Color Sensors

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

TL50	S65-W	S65-V	S8-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 Ⓤ C	10 - 30 Ⓤ C	10 - 30 Ⓤ C	12 - 30 Ⓤ C
	√	√	√
	√	√	√
√			
	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
IP67	IP67	IP67	IP67

Distance Sensors

Series		S80-Y0	S80-YL0
Operating Distances Distance sensor	⬌	0.3 - 4m	0.3 - 7m
Digital resolution		0.9mm	0.4mm
Linearity		0.3%	0.3%
Switching frequency		100Hz (Normal) 500Hz (Fast)	100Hz
Light emission		Red laser ⚠ cl.2	Red laser ⚠ cl.2
Response time		5ms (Normal) 1ms (Fast)	5ms
Serial interface		RS485	RS485
Setting		Teach button	Teach button
Hysteresis			
Technical Data Power supply	V DC	15 - 30 🆄🅛 ⓒ	15 - 30 🆄🅛 ⓒ
	V AC		
	V AC/V DC		
Output	PNP	√	√
	NPN	√	√
	NPN/PNP		
	relay (SCR)		
	other	4 - 20mA	4 - 20mA
Connection	cable		
	connector	M12 8-poles	M12 8-poles
	terminal block		
Dimensions (mm)		34 x 90 x 73	34 x 90 x 73
Housing material		Aluminium	Aluminium
Mechanical protection		IP67	IP67

S80-Y1	S80-Y2	S81	S62-Y
0.3 - 20.3m (using R80 reflector)	0.3 - 100.3m (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 ⚠ cl.2	Red laser ⚠ cl.2	Red laser ⚠ cl.2	Red laser ⚠ cl.2
5ms (Normal) 1ms (Fast)	5ms (Normal) 1ms (Fast)	6ms	1ms
RS485	RS485		RS485
Teach button	Teach button	Teach button	Teach button
		30mm (M models)	
15 - 30 ⓊⓁ ⚙	15 - 30 ⓊⓁ ⚙	15 - 30 ⓊⓁ ⚙	12 - 24 ⓊⓁ ⚙
√	√	√	
√	√	√	
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
Aluminium	Aluminium	ABS	ABS
IP67	IP67	IP67	IP67

Application Photoelectric Sensors

Light Grid Sensors

	Series		AS1-HR	AS1-SR
Operating Distances	Area sensor (height)		100mm	100mm
	Light grid (height)			
	Resolution		0.2 x 75mm ø6mm	0.2 x 200mm ø18mm
	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
Technical Data	Power supply	V DC	10 - 30 ⓊⓁ C	10 - 30 ⓊⓁ C
		V AC		
		V AC/V DC		
	Output	PNP	√	√
		NPN		
		NPN/PNP		
		relay		
		other		
	Connection	cable		
		connector	√	√
		terminal block		
	Dimensions (mm)		20 x 41 x 150	20 x 41 x 150
	Housing material		Aluminium	Aluminium
	Mechanical protection		IP67	IP67

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 Ⓤ Ⓒ
√	√	√
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		S65-Z	US18
Operating Distances	Line sensor	◄█►	150mm	
	Ultrasonic sensor	█		30 - 300mm
	Resolution			± 1mm (2.5ms) ± 0.5mm (30ms)
	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
Technical Data	Power supply	V DC	10 - 30 ⓤ C	10 - 30 C
		V AC		
		V AC/V DC		
	Output	PNP		
		NPN		
		NPN/PNP	√	√
		relay		
		other	4 - 20mA	4 - 20mA / 0 - 10 V
	Connection	cable		
		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

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
30 x 63.6 x 45
Polyester
IP67

Accessories

Prismatic Reflectors
R Series

Prismatic reflectors are used with retro-reflective 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

800-262-IDEC

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.

Inductive Sensors

Series		IS-4/IS-5
Operating Distances — Operating distance		0.8mm
Repeatibility		≤ 1%
Hysteresis		< 10%
Ripple		≤ 10%
Switching frequency		2000Hz
Indicators		Yellow LED
Technical Data — Power supply	V DC	10 - 30, 3 wire Ⓤ
	V AC	
	V AC/V DC	
Output	2 wires NO/NC	
	3 wires NPN/PNP NO/NC	√
	4 wires NPN/PNP NO+NC	
	4 wires programmable	
	other	
Connection	cable	√
	M8 connector	√
	M12 connector	
Housing		Standard
Housing material		Stainless steel
Mechanical protection		IP67

Proximity Sensors

Inductive Sensors

Series			IS-8	
Operating Distances	Operating distance		1.5mm, Shielded 2mm, Unshielded	2mm, Shielded 3mm, Unshielded
	Repeatability		≤ 3%	≤ 3%
	Hysteresis		< 10%	< 10%
	Ripple		≤ 10%	≤ 10%
	Switching frequency		1000Hz	500Hz
	Indicators		Yellow LED	Yellow LED
Technical Data	Power supply	V DC	10 - 30, 3 wire ⓊⓁ	10 - 30, 2 Wires ⓊⓁ
		V AC		
		V AC/V DC		
	Output	2 wires NO/NC	√	√
		3 wires NPN/PNP NO/NC	√	√
		4 wires NPN/PNP NO+NC		
		4 wires programmable		
		other		
	Connection	cable	√	√
		M8 connector	√	√
		M12 connector	√	√
	Housing		Standard Short	Standard Short
	Housing material		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
	$\leq 3\%$	$\leq 3\%$	$\leq 3\%$	$\leq 3\%$	$\leq 3\%$	$\leq 3\%$
	$< 10\%$	$< 10\%$	$< 10\%$	$< 10\%$	$< 10\%$	$< 10\%$
	$\leq 10\%$	$\leq 10\%$	$\leq 10\%$	$\leq 10\%$	$\leq 10\%$	$\leq 10\%$
	1000Hz	500Hz	1000Hz	400Hz	300Hz	200Hz
	Yellow LED	Yellow LED	Yellow LED	Yellow LED	Yellow LED	Yellow LED
	10 - 30, 2, 3 & 4 Wires (UL)	10 - 30, 2, 3 & 4 Wires (UL)	10 - 30, 2, 3 & 4 Wires (UL)	10 - 30, 2, 3 & 4 Wires (UL)	10 - 30, 2, 3 & 4 Wires (UL)	10 - 30, 2, 3 & 4 Wires (UL)
	√	√	√	√	√	√
	√	√	√	√	√	√
	√	√	√	√	√	√
	√	√	√	√	√	√
	√	√	√	√	√	√
	√	√	√	√	√	√
	√	√	√	√	√	√
	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 stand-alone 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
Operating Distances	Category	👁	Vision Sensor	Vision Sensor
	Resolution		640 x 480	640 x 480
	Frames per second		up to 60	up to 60
	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
Technical Data	Power supply	V DC	24 ⓊⓁ C	24 ⓊⓁ C
		V AC		
		V AC/V DC		
	Output	PNP	√	√
		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		Aluminium/plastic	Aluminium/plastic
	Mechanical protection		IP50	IP50

Smart Vision Sensors

Configurators & Monitors

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

Illuminators

Series		SIL	
Models ☼		Line, Area, Ring, Spot, Back	Laser
Driver		Integrated or external	Integrated
Light Source		Power LED	Laser 650mm
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		250 - 1000lux	
Laser class			5mW ⚠ cl.3
Power supply	V DC	24	5 - 24
	V AC		
	V AC/V DC		
Output	PNP		
	NPN		
	NPN/PNP		
	relay (triac)		
	other		
Connection	cable		
	connector	M8 4-poles	M12 4-poles
	terminal block		
Dimensions (mm)		96 x 96 x 40	96 x 96 x 40
Housing material		Aluminium	Aluminium
Mechanical protection		IP65	IP65

Operating Distances / Technical Data

MicroSmart PLC - The fastest in its class!

Offering speed, power, performance and precision, IDEC PLCs will cut your development time in half. These reliable controllers are easy-to-use with faster response, better throughput and less downtime.

www.IDEC.com/usa/microsmart

LUMIFA - LED Illumination for Industrial Automation

Lumifa LED light strips give you a way to save time, energy and money. Perfect for narrow areas, those not easily accessible or that are dangerous to access, these LEDs have a half-life of 40,000 hours.

www.IDEC.com/usa/LED

Safety - Think IDEC first!

With a complete line of safety products, you can find everything you need to keep your workplace running smoothly. From emergency-stop switches to safety controllers to interlock switches, we have the solution for your application.

www.IDEC.com/safety

IDEC *Think Automation and beyond...*