


S15

UNIVERSAL
PHOTOELECTRIC
SENSORS

Above all others



**DATASENSOR**
value through detection



ACCESSORIES



S15 UNIVERSAL PHOTOELECTRIC SENSORS



The main characteristic of the new M18 tubular S15 sensors is the housing length of only 40 mm, especially suitable for applications with reduced space.

The new S15 series is available with cable output, in order to maximise the concept of 'reduced dimensions' as well as to offer contemporaneously the best installation flexibility.

The S15 series is supplied without the sensitivity adjustment trimmer in order to ease and speed-up installation. This feature drastically reduces the possibility of allowing the operator to modify the sensor's performances and so guaranteeing improved reliability and productivity.

The main optic functions used in the industrial market are available:

- **polarised retroreflex (3.5 m)**
- **non-polarised retroreflex (4.5 m)**
- **diffuse proximity (10 and 35 cm)**
- **through beam (20 m)**

These sensors are ideal for the most critical applications with harsh environmental conditions thanks to the IP69K mechanical protection.

HIGHLIGHTS

- Small housing of only 40 mm
- Cable output
- No sensitivity adjustment trimmer
- IP69K mechanical protection

40 mm

CHARACTERISTIC	ADVANTAGES
Housing length	Installation in small spaces, major sturdiness and reliability.
Cable output	Best installation flexibility and adaptability to the machine dimensions.
No adjustment	Drastic reduction of the possibility of allowing the operator to modify the sensor's performances (improved reliability and plant productivity).
IP69K	Use in the most critical applications with harsh environmental conditions (e.g. frequent washing with high-pressure water jets).

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APPLICATIONS

The reduced dimensions of the S15 series, together with the IP69K mechanical protection solve the most critical applications of the following sectors:

- **Wood-working machines**
- **Packaging machines**
- **Transport lines for tiles in the ceramic industry**
- **Transport lines in automatic warehouses**
- **Bottling machines**
- **Automatic machines in the food industry**



SECTOR

ADVANTAGES

Ceramics & Wood

The compact dimensions and the absence of adjustment trimmer reduce installation times and improve reliability, avoiding also the possibility of changing sensor calibration.

Food & beverage

The IP69K mechanical protection guarantees improved product reliability, also in extreme environmental conditions, such as high-pressure waterjets.

Packaging

The housing dimension and cable output solve installation problems in applications with limited space, thus guaranteeing the best installation flexibility and adaptability to the machine dimensions.

Materials handling

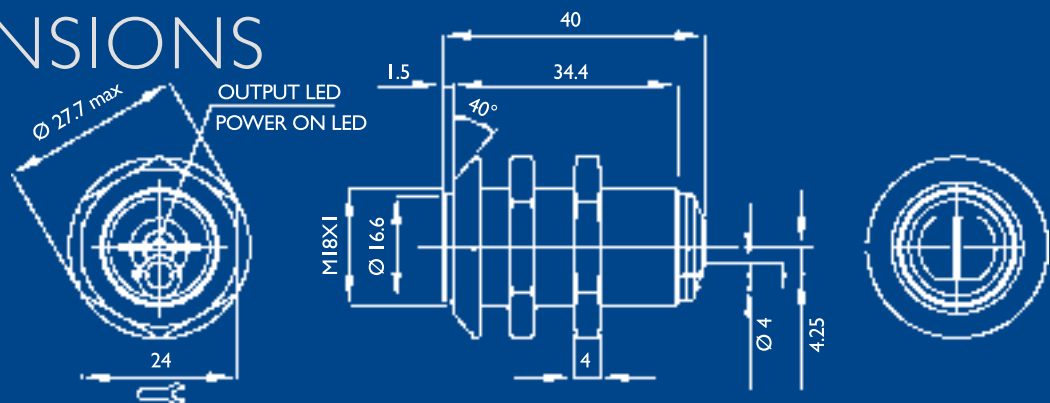
The IP69K mechanical protection and the absence of the adjustment trimmer reduce installation times and improve product reliability (improved plant productivity).

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TECHNICAL DATA

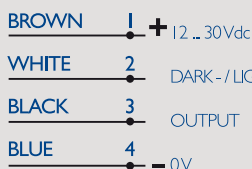
Power supply:	12 ... 30 Vdc limit values
Ripple:	2Vpp max.
Current consumption (output current excluded):	30 mA max.
Outputs:	N.O. / N.C.; PNP or NPN (short-circuit protection)
Output current:	100 mA max.
Output saturation voltage:	2V max.
Response time:	1 ms (4 ms F00 mod.)
Switching frequency:	500 Hz (120 Hz F00 mod.)
Indicators:	OUTPUT LED (YELLOW) excluded G00 mod. - POWER ON LED (GREEN) (G00 mod.)
Operating temperature:	-25 ... 55 °C
Storage temperature:	-25 ... 70 °C
Insulating strength:	500 Vac min between electronics and housing
Insulating resistance:	>20 MΩ 500 Vdc between electronics and housing
Operating distance (typical values):	A00: 0.1...4 m on R2 B00: 0.1...3 m on R2 C00: 1...35 cm / C10: 1...10 cm F00/G00: 0...20 m
Emission type:	red (660 nm) (B00 mod.) / infrared (880 nm) (A00/C00/C10/G00 mod.)
Ambient light rejection:	according to EN 60947-5-2
Vibrations:	0.5 mm amplitude, 10 ... 55 Hz frequency, for every axis (EN60068-2-6)
Shock resistance:	11 ms (30 G) 6 shock for every axis (EN60068-2-27)
DARK/LIGHT selection:	white wire or pin 2 connected to +12...30V LIGHT mode; to 0V DARK mode white wire or pin 2 not connected LIGHT mode (C00/C10 mod.); DARK mode (A00/B00/F00 mod.)
Housing material:	ABS UL 94V-O
Lens material:	PMMA
Mechanical protection:	IP69K
Connections:	2 m Ø 4 mm cable
Weight:	55 g. max. cable version

DIMENSIONS

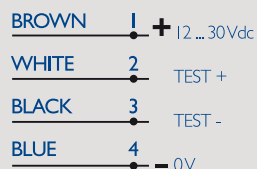


CONNECTIONS

S15...A00/B00/C00/C10/F00



S15...G00



AVAILABLE MODELS

MODEL	DESCRIPTION	ORDER N°
S15-PA-2-A00-PK	Retroreflex, PNP	952301000
S15-PA-2-B00-PK	Polarised retroreflex, PNP	952301010
S15-PA-2-C10-PK	Short diffuse proximity, PNP	952301020
S15-PA-2-C00-PK	Long diffuse proximity, PNP	952301030
S15-PA-2-F00-PK	Receiver, PNP	952301040
S15-PA-2-A00-NK	Retroreflex, NPN	952301050
S15-PA-2-B00-NK	Polarised retroreflex, NPN	952301060
S15-PA-2-C10-NK	Short diffuse proximity, NPN	952301070
S15-PA-2-C00-NK	Long diffuse proximity, NPN	952301080
S15-PA-2-F00-NK	Receiver, NPN	952301090
S15-PA-2-G00-XG	Emitter	952301100

* in case of white wire or pin 2 not connected the sensor operates in LIGHT mode for proximity models (C00/C10) and in DARK mode for retroreflex (A00/B00) and receiver (F00) models.