

DATASENSING SA SERIES HIGH PERFORMANCE M18 PHOTOELECTRIC SENSOR

SAT/0P-1K

Diffuse Focalizz. PNP metal. conn. M12 90°

- Sensing distance up to 50mm
- BT (plastic housing), nickel-plated brass (metal housing), nylon (cable exit)
- NO/NC selectable output
- IP65 protection degree
- All models are available with sensitivity adjustment trimmer



PRODUCT DESCRIPTION

The **SA Series High Performance M18 Photoelectric Sensors** from Datasensing (formerly Micro Detectors) are designed to deliver reliable, high-precision detection in a wide variety of industrial environments. These sensors offer multiple optic functions, including polarized retro-reflective, diffuse proximity, and fixed focus, ensuring versatility and adaptability to different sensing needs. Whether you need to detect objects at varying distances, across challenging backgrounds, or in environments with high ambient light, the SA Series is engineered to provide consistent and accurate performance.

The M18 barrel housing design of the SA Series ensures exceptional mounting flexibility, allowing for seamless integration into a variety of industrial applications, from automated production lines to complex sorting systems. The sensors are available in both plastic and metal housing, providing options to suit different environmental conditions. The radial 90-degree orientation enhances the flexibility of installation, allowing the sensor to fit in constrained spaces or applications requiring a specific alignment. Additionally, the sensors come with either a 2m embedded cable or an M12 connector, ensuring easy and reliable connections for industrial control systems.

The SA Series is built for high-performance operation in industrial environments, offering rugged durability to withstand exposure to dust, moisture, and mechanical wear. Their reliable sensing capabilities and rugged construction make them perfect for demanding applications, whether in automated material handling, packaging, robotics, or logistics systems. With a focus on high accuracy and flexibility, these sensors are designed to optimize efficiency and minimize downtime across a range of industrial processes.

Technical features:

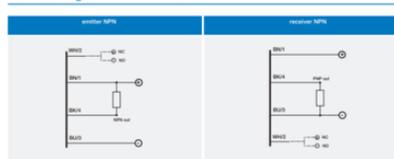
- Sensor Types: Polarized retro-reflective, diffuse proximity and fixed focus
- Housing: M18 barrel housing for excellent mounting flexibility in various industrial applications or available in plastic or metal housing, offering durability and protection in harsh environments.
- Optics: Radial 90-degree orientation, providing flexible installation and alignment options for different application needs.
- Connection Options: 2m embedded cable or M12 connector, allowing for easy integration with industrial control systems.
- Power Supply: Operates on 24V DC, suitable for standard industrial control systems.
- Durability: Designed to withstand exposure to dust, moisture, and mechanical wear, ensuring reliable operation in tough industrial conditions.
- Applications: Ideal for use in automated production lines, material handling, packaging, robotics, logistics, and other industrial automation applications.
- Fast Response Time: Provides quick detection, making it suitable for high-speed operations and real-time object detection.
- Detection Range: Offers a reliable sensing range depending on the specific sensor function (polarized retro-reflective, diffuse proximity, or fixed focus).
- Environmental Protection: Built to operate in challenging environments with robust protection against harsh elements and mechanical damage.

TECHNICAL DATA

Distance max	50 mm
Electrical connection	M12 Plug 90°

Housing	M18
IP class	IP67
LED indication	YES
Material of body	Nickel plated brass
Photocell technology	Diffuse Reflection Fixed Focus
Supply voltage dc max	30 V DC
Supply voltage dc min	10 V DC
Temperature operational max	70 °C
Temperature operational min	-25 °C
Type of light	Red

electrical diagrams of the connections



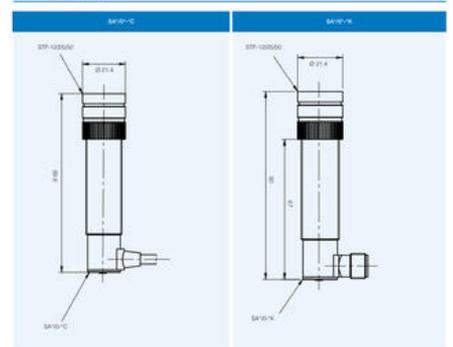
In case of combined load, resistive and capacitive, the maximum admissible capacity C is 0,5µF for maximum load voltage and current. Inductance NO and NC are referred to the diffuse reflector sensors (or target absence). For retro-reflective models the indication NO to be replaced by NC and NC by NO.

- NO: NO
- NC: NC
- COM: COM
- NO: NO
- NC: NC
- COM: COM

plug

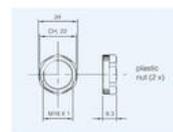


dimensions (mm)



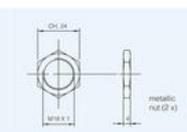
dimensions (mm)

accessories included in all plastic models

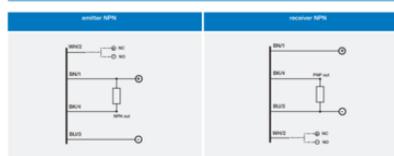


dimensions (mm)

accessories included in all metallic models



electrical diagrams of the connections



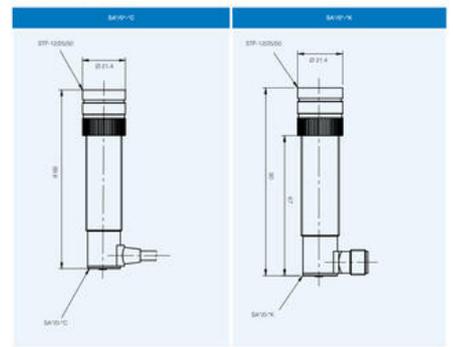
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- NO: NO
- NC: NC
- COM: COM
- NO: NO
- NC: NC
- COM: COM

plug

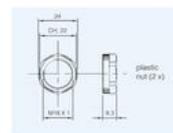


dimensions (mm)



dimensions (mm)

accessories included in all plastic models



dimensions (mm)

accessories included in all metallic models

