

DATASENSING FFRS M18 IP69K BACKGROUND SUPPRESSION SENSORS

FFRS/0N-1E

Axial BGS 30-130 mm NPN NO +NC conn. M12

- Sensing distance up to 130m
- AISI 316L (DIN 1.4404) stainless steel housing
- Output Types PNP and NPN
- M18 background suppression with IP69K protection
- Innovative teach-in function through sensor housing



PRODUCT DESCRIPTION

The **FFRS Series M18 IP69K Background Suppression Sensors** from Datasensing are designed to provide highly reliable and accurate object detection in demanding industrial environments. Equipped with background suppression technology, these sensors are ideal for applications where it is critical to detect objects at a specific distance while ignoring the background. With their IP69K protection rating, these sensors can withstand high-pressure water jets, dust, and extreme environmental conditions, making them perfect for industries like food processing, automotive, and material handling.

Built with a rugged M18 barrel housing and stainless-steel construction, the FFRS Series offers exceptional durability and resistance to harsh conditions. The IP69K-rated stainless steel housing ensures that the sensor can endure exposure to high temperatures, cleaning agents, and mechanical wear without compromising performance. This design ensures long-lasting reliability and minimal maintenance, even in environments that require frequent washing or where high levels of moisture and dust are present.

The FFRS Series sensors are available with an M12 connection, making them easy to integrate into existing control systems for industrial automation. The classic M18 barrel housing design guarantees excellent mounting flexibility, allowing for quick installation in various positions and orientations. Whether you're detecting small parts, measuring distances, or positioning materials, the FFRS Series ensures precise performance every time.

Technical features:

- **Sensor Type:** Background suppression sensor for precise detection of objects at a specified distance while ignoring the background.
- **Protection Rating:** IP69K rated, providing high resistance to dust, water, and high-pressure, high temperature washdowns, making it ideal for harsh industrial environments.
- **Housing:** M18 barrel housing design for easy integration and mounting flexibility or stainless steel housing for enhanced durability and resistance to mechanical wear, chemicals, and high temperatures.
- **Connection Type:** M12 connection, offering a secure and easy connection for industrial automation systems.
- **Operating Temperature Range:** Typically ranges from -25°C to +55°C, ensuring reliable operation in a variety of environmental conditions.
- **Sensing Range:** Designed for accurate detection of objects within a specific range, making it ideal for close-range sensing and eliminating interference from the background.
- **Precision Detection:** Delivers accurate object detection even in difficult or cluttered environments, improving the reliability of industrial applications.
- **Durability:** Engineered for long-term use with high mechanical and chemical resistance, minimizing maintenance and ensuring consistent performance.
- **Fast Response Time:** Provides quick response times, suitable for high-speed industrial processes.
- **Power Supply:** Operates on 24V DC, compatible with standard industrial power sources.
- **Versatile Applications:** Ideal for industrial automation, material handling, food processing, packaging, and robotics where high durability, precision, and reliability are required.

TECHNICAL DATA

Distance max

130 mm

Distance min	30 mm
Electrical connection	M12 plug cable exit
Housing	M18
IP class	IP67, IP68, IP69K
LED indication	Yes
Material of body	Stainless steel
Output	NO/NC Selectable, NPN
Supply voltage dc max	30 V DC
Supply voltage dc min	10 V DC
Temperature operational max	80 °C
Temperature operational min	-25 °C
Type of light	Red