943-F4V-2D-002-180E

Series 943, software programmable, 200 mm to 2000 mm [7.9 in to 78.5 in.] scan distance, M18 plastic housing, switching 2 x NPN, Connector termination

Actual product appearance may vary.

Features

- New easy remote Teach In/Auto-tuning Window and hysteresis mode are now available through programming for the switching devices
- Improved scanning distances with minimized dead zone and extended maximum ranges from 60 mm to 3,500 mm [2.4 in to 137.7 in]
- Two switching outputs (each can be either N.O. or N.C.) or analog outputs (either voltage, 0 Vdc to 10 Vdc or current 4 mA to 20 mA) are available
- Temperature compensation
- Connector (M12, 5 pin) or cable version available
- Plastic M18 or M30 (depending on the scanning ranges) with IP67

Applications

- Reel diameter measurement
- Tank level measurement
- Presence absence of a person or object
- Loop control
- Product height measurement
- Tire manufacturing

Description

The new 943 series industrial sensors perform distance measurement by using an ultrasonic beam. They are the newest addition to our product range, they have improved scanning ranges, remote teach-in/auto-tuning of the switching or analog outputs, as well as new advanced features, such as window and hysteresis modes.

The new 943 is ideal for industrial applications. High power, small package (M18 and M30 versions available), high sealing and chemical resistance are common features. Since it is not necessary to be near the sensor when programming parameters, the sensors can be located where space is at a premium. The parameters are stored in non-volatile memory (EEPROM). PNP or NPN versions are available. The 2 switching outputs can either be N.O. or N.C.; Voltage (0 Vdc to 10 Vdc) or current (4 mA to 20 mA) outputs with slope control are available for the analog versions.

Supporting Documentation

Product Specifications	
Sensing Range	200 mm to 2000 mm [7.9 in to 78.5 in.]
Range Type	Middle range 1,0 m to 2,0 m [39.0 in to 79.0 in]
Min. Sensing Distance of Test Target	200 mm [7.87]
Supply Voltage	12 Vdc to 30 Vdc
Beam Angle	8°
Oscillating Frequency	180 KHz
Integrated Temperature Compensation	Yes
Repeatability	0.2 %/2 mm
Output Type	Switching 2 x NPN
Switching Output Type	2 Outputs - Configure for Normally Open/Normally Closed
Max. Switching Frequency	1.2 Hz
Adjustment Method	Teach-in
Operating Temperature Range	-15 °C to 70 °C [5 °F to 158 °F]
Storage Temperature	-25 °C to 70 °C [-13 °F to 158 °F]
Maximum Output Current	500 mA
Hysteresis	0.01
Indicators	3 LED
Memory	EEPROM (non-volatile)
Current Consumption	< 80 mA
Circuit Protection	Reverse Polarity, voltage spikes on supply and output lines, short circuit on switching output
Housing Style	M18 plastic
Housing Material	Polyethylenterephtalat
Sealing	IP67
Mounting	2 x M18 plastic nuts 24 mm
Sensing Face Material	Epoxy
Termination Type	Connector
Connector Type	M12, 5 pin (female connector not included)
Availability	Global
Normally Open/Normally Closed selection	Teach-in
UNSPSC Code	41111926
UNSPSC Commodity	41111926 Proximity sensors
Series Name	943