



### 940-F4Y-2D-002-300E



Series 940-F/947, 600 mm [24.0 in] scan distance, Plastic M18, Prewired 2 m, switching output NPN, adjustment potentiometer

*Actual product appearance may vary.*

#### Features

- Maximum scan ranges from 0,6 m to 3,0 m [1.96 ft to 19.68 ft]
- Plastic housing M18 (for 0,6 [1.96 ft] and 1,5 m [4.92 ft] models), M30 (for 3,5 m [11.48 ft] models)
- Chemical-resistant epoxy heads
- High sealing IP67
- Pre-leaded 2,0 m [78.75 in] or M12 connector models
- Synchronising/hold input: To avoid mutual interference from several sensors, they are very simply synchronised by connecting their synchronising/hold input (pin 4) together. If the measure needs to be stopped, connect the synchronising/hold input to the ground; the output stays stable.
- Adjustment by potentiometer
- Micro-processor controlled
- Temperature compensation

#### Potential Applications

- Bottle counting
- Food processing machinery
- Filling machinery
- Crop handling machinery
- Ground flatness detection for vehicles

#### Description

The 940/947 series are industrial controls performing distance measurement by using an ultrasonic beam. They are the easiest to use, provide unprecedented ultrasonic power in a very small package, can solve very difficult applications for a reasonable price. They provide one switching output (PNP or NPN open collector.)

The powerful ultrasonic beam detects even targets with bad ultrasonic characteristics (angled, soft, absorbent, pulverulent). The High-sealing IP67, plastic housing, and the epoxy head provide excellent resistance in aggressive environments like Food and Beverage or raw materials processing factories. The small package (M18 or M30) allows mounting in narrow places. Adjustment is simply performed by a potentiometer.

Prewired and connector models (M12) are available.

#### Supporting Documentation

Product Specifications	
Sensing Range	100 mm to 600 mm [4.0 in to 24.0 in]
Range Type	Short range < 1,0 m [39.0 in]
Supply Voltage	19 Vdc to 30 Vdc
Beam Angle	8°
Oscillating Frequency	300 KHz
Integrated Temperature Compensation	Yes
Repeatability	0.2 % ± 1,0 mm [0.039 in]
Output Type	Switching 1 x NPN
Switching Output Type	Normally Open (N.O.)
Response Time	30 ms (target moving < 1 m/s)
Response Time (Target Present/Absent)	200 ms
Max. Switching Frequency	25 Hz
Adjustment Method	Potentiometer
Operating Temperature Range	-15 °C to 70 °C [5 °F to 158 °F]
Storage Temperature	-25 °C to 85 °C [-13 °F to 185 °F]
Maximum Output Current	500 mA
Hysteresis	0.02
Indicators	1 LED
Additional Inputs/Outputs	Hold/Synchronisation
Current Consumption	35 mA maximum
Circuit Protection	Reverse Polarity, voltage spikes on supply and output lines, short circuit on switching output
Housing Style	M18 plastic
Housing Material	Polyethylenterephthalat
Sealing	IP67
Mounting	2 x M18 plastic nuts 24 mm
Sensing Face Material	Epoxy
Termination Type	Pre-wired 2 m [78.74]
Availability	Global
UNSPSC Code	41111926
UNSPSC Commodity	41111926 Proximity sensors
Series Name	940-F/947