

943 Series (943-F4V/F4Y-2D-001/002/1C0/1D0-360E)

Ultrasonic Distance Sensors



DESCRIPTION

The new 943-F4V (connector) and 943-F4Y (cable) Series industrial sensors are the latest additions to our range of ultrasonic distance sensors. They offer improved scanning ranges and remote Teach-In of the switching or analog outputs, in addition to new, advanced features, such as Window and Hysteresis modes. The devices are Teach-In compatible and have an M18 plastic housing.

FEATURES

- Non contact distance sensing for use in non invasive measurement
- Reduced sensitivity to light intensity/reflectivity/opacity of target for enhanced flexibility and certainty of measurement
- Detects over much longer distance than other detection methods reducing the need for close proximity to the target
- Presence absence, tank fill level and diameter measurement provides an extremely robust and flexible measurement method
- Short distance (in ultrasonic terms) for enhanced accuracy, repeatability (material independent) measurement to 30 mm [1.18 in].
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POTENTIAL APPLICATIONS

- Reel diameter measurement
- Tank level measurement
- Presence/absence of an object
- Loop control
- Product height measurement
- Tire manufacturing

943 Series (943-F4V/F4Y-2D-001/002/1CO/1DO-360E)

Specifications

Parameter	943-F4V-2D-001-360E	943-F4V-2D-002-360E	943-F4V-2D-1CO-360E	943-F4V-2D-1DO-360E	943-F4Y-2D-001-360E	943-F4Y-2D-002-360E	943-F4Y-2D-1CO-360E	943-F4Y-2D-1DO-360E
Max. sensing distance	400 mm [15.75 in]							
Min. sensing distance	30 mm [1.18 in]							
Expected response time 90% of final value	-		60 ms		-		60 ms	
Beam angle	8°							
Switching frequency	15 Hz		-		15 Hz		-	
Linearity error	-		<0.5%		-		<0.5%	
Hysteresis	1%		-		1%		-	
Repeatability of measured distance	±1 mm [0.039 in] ±0.2%							
Temperature range	-15 °C to 70 °C [-5 °F to 158 °F]							
Temperature compensation	yes							
Operating voltage	12 Vdc to 30 Vdc		15 Vdc to 30 Vdc		12 Vdc to 30 Vdc		15 Vdc to 30 Vdc	
Possible min. supply	-		12 Vdc		-		12 Vdc	
Expected current consumption	<80 mA		<40 mA		<80 mA		<40 mA	
Output	2X PNP NO/NC	2X NPN NO/NC	0 V to 10 V	4 mA to 20 mA	2X PNP NO/NC	2X NPN NO/NC	0 V to 10 V	4 mA to 20 mA
Expected output current	500 mA max.		-		500 mA max.		-	
Adjustment set point	Teach-In		-		Teach-In		-	
Teach-In input	pin 5				pink wire			
Sensitivity	-		Teach-In		-		Teach-In	
Teach-In: P1/P2 determines output position								
Plastic housing	PBPT M18x1							
Sealing*	IP65							
Connector	M12x1				-			
Cable connection	-				2 m [6.56 ft]			

*Attention! Do not expose sensor head to hot water >50 °C or steam vapour.

Accessories: 943-F4V-2D-001/002/1CO/1DO-360E

Catalog Listing	Description
66195044-001	Mating connector straight
66195045-001	Mating connector angled
66195214-001	Straight cable/connector 2 m
66195216-001	Right-angle cable/connector 2 m
43178389-018	Mounting clamp
43192871-003	Beam deflector
43192871-004	Focusing beam deflector

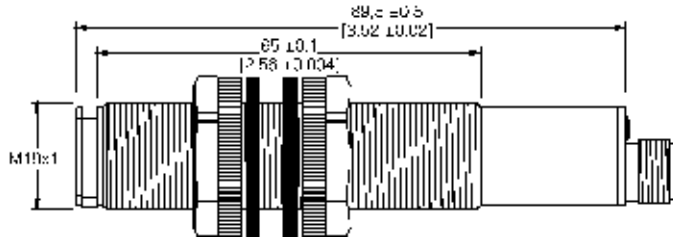
Accessories: 943-F4Y-2D-001/002/1CO/1DO-360E

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43178389-018	Mounting clamp
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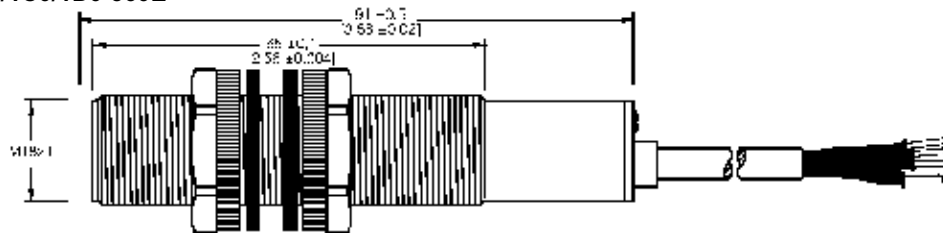
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Mounting Dimensions Continued (For reference only. mm/[in])

943-F4V-2D-001/002/1C0/1D0-360E

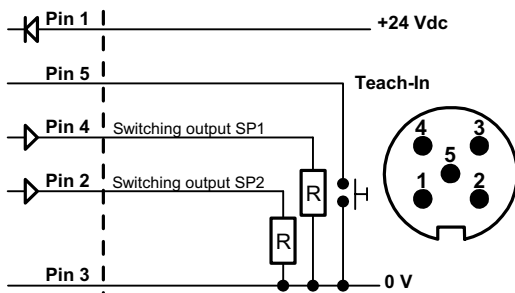


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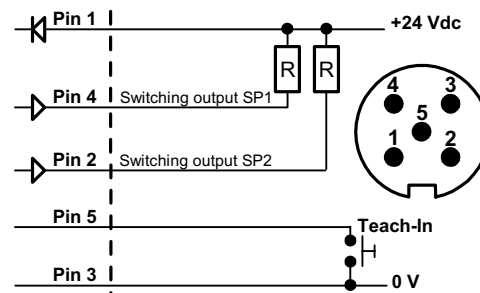


Wiring

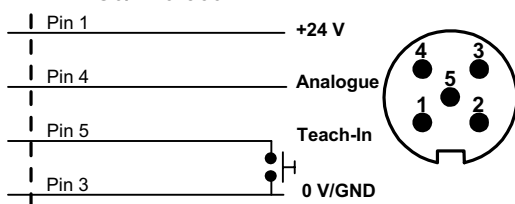
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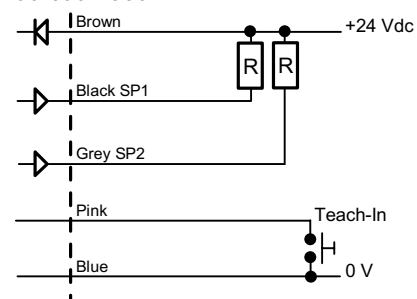
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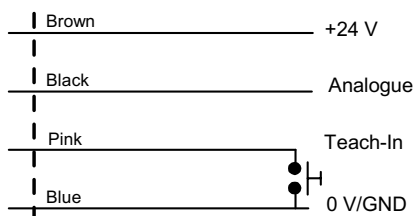
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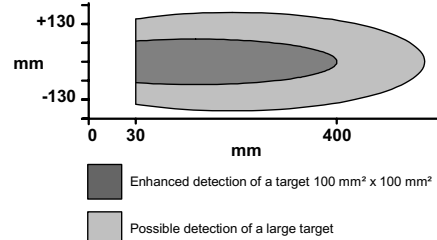
943-F4Y-2D-001/002-360E



943-F4Y-2D-1C0/1D0-360E



Detection Range



WARNING

PERSONAL INJURY

DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

Failure to comply with these instructions could result in death or serious injury.

WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items it finds defective. **The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

Automation and Control Solutions

Sensing and Control

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WARNING

MISUSE OF DOCUMENTATION

- The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.

Failure to comply with these instructions could result in death or serious injury.

SALES AND SERVICE

Honeywell serves its customers through a worldwide network of sales offices, representatives and distributors. For application assistance, current specifications, pricing or name of the nearest Authorized Distributor, contact your local sales office or:

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