VFK Series IP69K-rated Proximity Sensors

18 mm stainless steel - AC

- 2 models available
- 18 mm diameter
- 316L stainless steel housing
- 1/2" micro AC quick-disconnect plug with gold-plated pins (purchase cable separately)
- Complete overload protection
- IP69K rated for food and beverage applications
- M18 mounting hex nuts included
- Lifetime warranty

VFK1-A0-1M
VFK1-A0-2M

VFK Series Food and Beverage AC Inductive Prox Selection Chart							
Part Number	*Price*	*Sensing Range*	*Mounting*	*Output State*	*Connection*	*Wiring*	*Dimensions*
VFK1-A0-1M		0 to 5 mm (0 to 0.197 in)	Flush	N.O.	1/2" micro AC quick-disconnect plug	Diagram 1	Figure 1
VFK1-A0-2M		0 to12 mm (0 to 0.472 in)	Non-flush		1/2" micro AC quick-disconnect plug	Diagram 1	Figure 1

Wiring diagram

Diagram 1

3 — L1 L+

2 — N L−

Connector

3   2
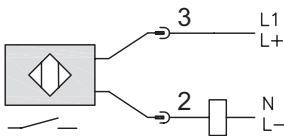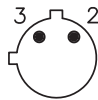
Note: Class 2 power supply required

VFK Series IP69K-rated Proximity Sensors

VFK Series Specifications		
Mounting Type	Flush	Non-flush
Nominal Sensing Distance	0 to 5 mm (0 to 0.197 in)	0 to12 mm (0 to 0.472 in)
Operating Distance	NA	
Material Correction Factors	See the Material influence table	
Output Type	N.O. only	
Operating Voltage	20 to 140 VAC/VDC	
No-load Supply Current	NA	
Operating (Load)Current	5 - 200mA	
Off-state (Leakage) Current	< 1 mA	
Voltage Drop	< 5.5 V	
Switching Frequency	25Hz VAC/400 Hz VDC	25Hz VAC/300 Hz VDC
Differential Travel (% of Nominal Distance)	1 - 20%	
Repeat Accuracy	10%	
Ripple	NA	
Time Delay Before Availability (tv)	1 s	
Reverse Polarity Protection	yes	
Short-Circuit Protection	yes (non latching)	
Operating Temperature	0° to 100°C (32° to 212°F)	
Protection Degree (DIN 40050)	IEC IP68/IP69K, II	
Indication/Switch Status	Normally Open output energized - Yellow	
Housing Material	316L stainless steel	
Sensing Face Material	PEEK (Polyether Ether Ketone)	
Shock/Vibration	See Proximity Sensor Terminology	
Tightening Torque	50 Nm (37 lb-ft)	
Weight	68g (2.39 oz)	59g (2.08 oz)
Connection	1/2" micro AC connector	
Agency Approvals	UL E328811, CE, ECOLAB, RoHS	

Dimensions

mm [inches]

Figure 1
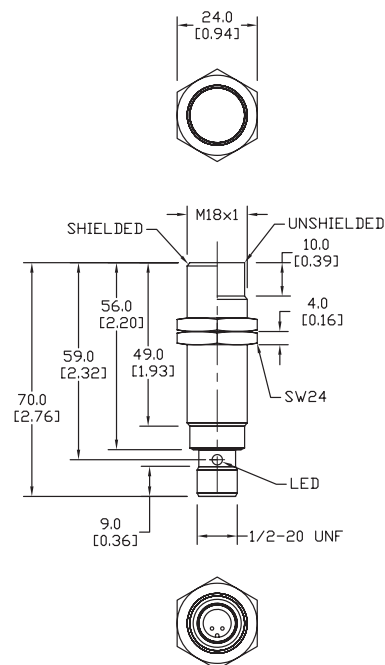
Accessories for 18mm Sensors

Axial Mounting Bracket

Axial mounting bracket available in zinc plated steel or 316L stainless steel. Has two mounting holes (use 4mm screws) and allows for rotation of an optical axis for right-beam-angle-adapter sensors. Hexagonal nuts not included. For use with 18mm sensors.
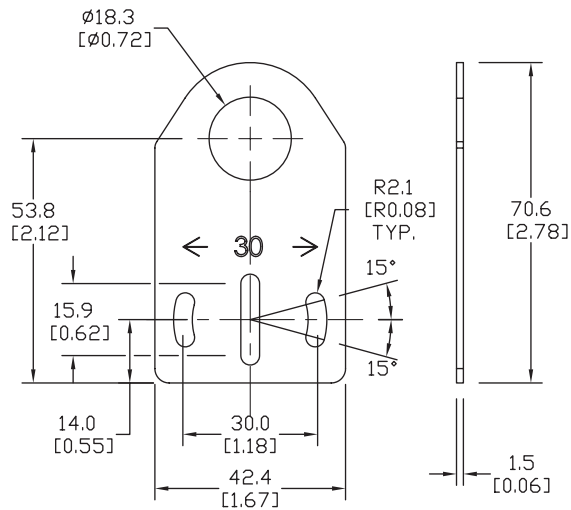
Accessories for 18mm Sensors			
Part Number	Price	Description	Weight lb (g)
ST18A		Mounting bracket, axial, zinc plated steel. For use with 18mm sensors.	0.06 (27.2)
ST18A7W		Mounting bracket, axial, 316L stainless steel. For use with 18mm sensors.	0.06 (27.2)

ST18A

Dimensions

mm [inches]

Ø18.3 [Ø0.72]
53.8 [2.12]
R2.1 [R0.08] TYP.
70.6 [2.78]
15.9 [0.62]
30
15°
15°
14.0 [0.55]
30.0 [1.18]
42.4 [1.67]
1.5 [0.06]

Right-angle Mounting Bracket

Right-angle mounting bracket for use with 18mm sensors. Has two mounting holes (use 4mm screws) and allows the rotation of an optical axis for axial sensors. Hexagonal nuts not included.
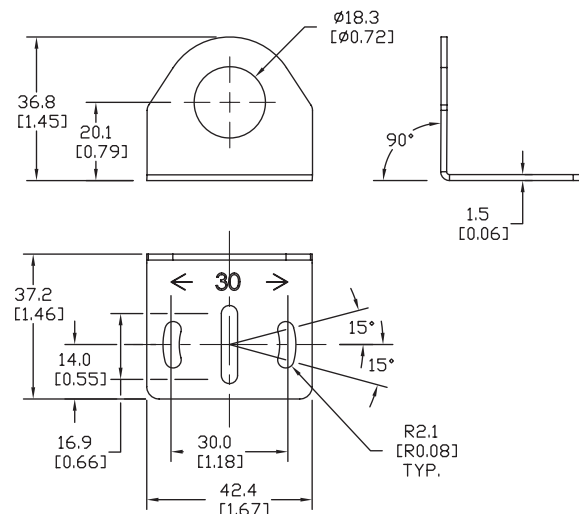
Accessories for 18mm Sensors			
Part Number	Price	Description	Weight lb (g)
ST18C		Mounting bracket, right-angle, zinc plated steel. For use with 18mm sensors.	0.06 (27.2)
ST18C7W		Mounting bracket, right-angle, 316L stainless steel. For use with 18mm sensors.	0.06 (27.2)

ST18C

Dimensions

mm [inches]

Ø18.3 [Ø0.72]
36.8 [1.45]
20.1 [0.79]
90°
1.5 [0.06]
37.2 [1.46]
30
15°
15°
14.0 [0.55]
16.9 [0.66]
30.0 [1.18]
42.4 [1.67]
R2.1 [R0.08] TYP.

Accessories for 18mm Sensors

Right-angle Mounting Brackets

Mounting bracket, right-angle, fixed insertion stop adjustment, plastic. For use with 18mm sensors. Available with or without fixed insertion stop.

Accessories for 18mm Sensors				
Part Number	Price	Description	Drawing Link	Weight lb (g)
OPT2104		Wenglor mounting bracket, right-angle, fixed insertion stop adjustment, plastic. For use with 18mm sensors.	PDF	0.06 (27.2)
OPT2105		Wenglor mounting bracket, right-angle, plastic. For use with 18mm sensors.	PDF	0.06 (27.2)

OPT2104, OPT2105

Right-angle Swivel Mounting Systems

Mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment, 12mm rod mount. For use with 18mm sensors. Available in all 304 stainless steel or with an aluminum head and a stainless steel mounting plate.

Accessories for 18mm Sensors						
Part Number	Price	Description	Mounting Head	Mounting Plate	Drawing Link	Weight lb (g)
OPT2116		Wenglor mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment, aluminum, 12mm rod mount. For use with 18mm sensors.	Aluminum	304 Stainless steel	PDF	0.15 (68.0)
OPT2117		Wenglor mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment, 304 stainless steel, 12mm rod mount. For use with 18mm sensors.	304 Stainless steel	304 Stainless steel	PDF	0.28 (127.0)

Note: 304 Stainless steel mounting rods sold separately: OPT2109 (200mm [7.87 in] length), OPT2110 (300mm [11.81 in] length), and OPT2111 (500mm [19.69 in] length).

OPT2116, OPT2117

Mounting Rods and Brackets

Mounting Rods

304 Stainless steel rods for mounting swivel brackets OPT2112 - OPT2127.
Available in three lengths: 200mm, 300mm, and 500mm. 12mm diameter.

Mounting Rods for OPT2112-2127 Swivel Mounting Brackets				
Part Number	Price	Description	Drawing Link	Weight lb (g)
OPT2109		Wenglor mounting rod, 12mm diameter, 200mm length, 304 stainless steel.	PDF	0.41 (185.97)
OPT2110		Wenglor mounting rod, 12mm diameter, 300mm length, 304 stainless steel.	PDF	0.60 (272.16)
OPT2111		Wenglor mounting rod, 12mm diameter, 500mm length, 304 stainless steel.	PDF	0.98 (444.52)

Right-angle Mounting Bracket

Mounting bracket, right-angle, nickel-plated brass. For use with 12mm mounting rods
OPT2109, OPT2110 & OPT2111.

Right-angle Mounting Brackets for 12mm Sensors				
Part Number	Price	Description	Drawing Link	Weight lb (g)
OPT2108		Wenglor mounting bracket, right-angle, nickel plated brass. For use with 12mm mounting rods OPT2109, OPT2110 & OPT2111.	PDF	0.07 (31.8)