

VFK Series IP69K-rated Proximity Sensors



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

18mm Stainless Steel - AC

- 18mm 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

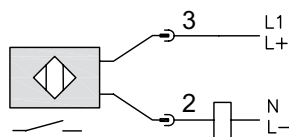


VFK Series Food and Beverage AC Inductive Proximity Selection Chart

| Part Number | Price | Sensing Range | Mounting | Output State | Connection | Wiring | Dimensions |
|-------------------|---------|-------------------------------|-----------|--------------|--|-----------|------------|
| VFK1-A0-1M | \$73.00 | 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 | \$73.00 | 0 to 12 mm [0 to 0.472 in] | Non-flush | | 1/2" micro AC quick-disconnect plug | Diagram 1 | Figure 1 |

Wiring Diagram

Diagram 1



Note: Class 2 power supply required

Connector



| VFK Series Food and Beverage AC Inductive Proximity Specifications | | |
|--|--|----------------------------|
| Mounting Type | Flush | Non-flush |
| Nominal Sensing Distance | 0 to 5 mm [0 to 0.197 in] | 0 to 12 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 | < 1mA | |
| Voltage Drop | < 5.5 V | |
| Switching Frequency | 25Hz VAC/400Hz VDC | 25Hz VAC/300Hz VDC |
| Differential Travel (% of Nominal Distance) | 1 - 20% | |
| Repeat Accuracy | 10% | |
| Ripple | NA | |
| Time Delay Before Availability (tv) | 1s | |
| 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

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-adaptor sensors. Hexagonal nuts not included. For use with 18mm sensors.

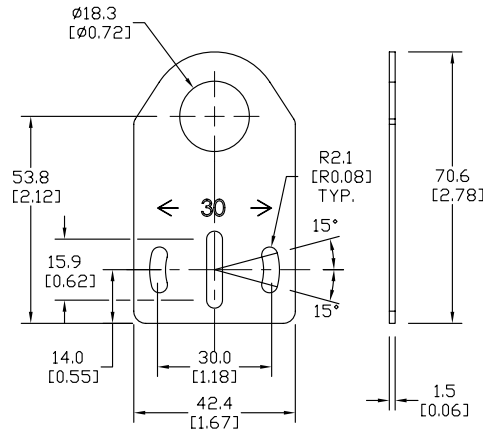
| Accessories for 18mm Sensors | | | |
|------------------------------|--------|---|------------------|
| Part Number | Price | Description | Weight lb [g] |
| <u>ST18A</u> | \$2.25 | Micro Detectors mounting bracket, axial, zinc plated steel. For use with 18mm sensors. | 0.06 [27.2] |
| <u>ST18A7W</u> | \$8.00 | Micro Detectors mounting bracket, axial, 316L stainless steel. For use with 18mm sensors. | 0.06 [27.2] |



ST18A

Dimensions

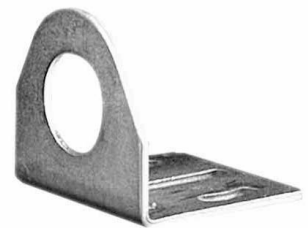
mm [inches]



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.

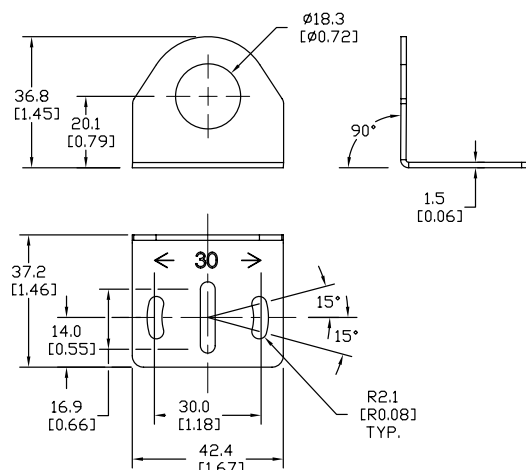
| Accessories for 18mm Sensors | | | |
|------------------------------|--------|---|------------------|
| Part Number | Price | Description | Weight lb [g] |
| <u>ST18C</u> | \$2.25 | Micro Detectors mounting bracket, right-angle, zinc plated steel. For use with 18mm sensors. | 0.06 [27.2] |
| <u>ST18C7W</u> | \$8.00 | Micro Detectors mounting bracket, right-angle, 316L stainless steel. For use with 18mm sensors. | 0.06 [27.2] |



ST18C

Dimensions

mm [inches]



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 | \$11.50 | Wenglor mounting bracket, right-angle, fixed insertion stop adjustment, plastic. For use with 18mm sensors. | PDF | 0.06 [27.2] |
| OPT2105 | \$11.50 | 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 | \$12.50 | 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 | \$22.50 | 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] |



[OPT2116](#), [OPT2117](#)

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).

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 | \$14.00 | Wenglor mounting rod, 12mm diameter, 200mm length, 304 stainless steel. | PDF | 0.41 [185.97] |
| OPT2110 | \$17.50 | Wenglor mounting rod, 12mm diameter, 300mm length, 304 stainless steel. | PDF | 0.60 [272.16] |
| OPT2111 | \$22.50 | 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 | \$17.50 | Wenglor mounting bracket, right-angle, nickel-plated brass. For use with 12mm mounting rods OPT2109, OPT2110 & OPT2111. | PDF | 0.07 [31.8] |

