

# 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

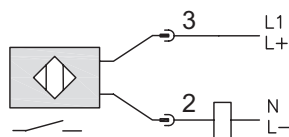


### VFK Series Food and Beverage AC Inductive Proximity Selection Chart

| Part Number       | Price   | Sensing Range                 | Mounting  | Output State | Connection                             | Wiring    | Dimensions |
|-------------------|---------|-------------------------------|-----------|--------------|----------------------------------------|-----------|------------|
| <b>VFK1-A0-1M</b> | \$66.00 | 0 to 5 mm<br>[0 to 0.197 in]  | Flush     | N.O.         | 1/2" micro AC<br>quick-disconnect plug | Diagram 1 | Figure 1   |
| <b>VFK1-A0-2M</b> | \$66.00 | 0 to 12 mm<br>[0 to 0.472 in] | Non-flush |              | 1/2" micro AC<br>quick-disconnect plug | Diagram 1 | Figure 1   |

## Wiring Diagram

Diagram 1



Note: Class 2 power supply required

Connector



# VFK Series IP69K-rated Proximity Sensors

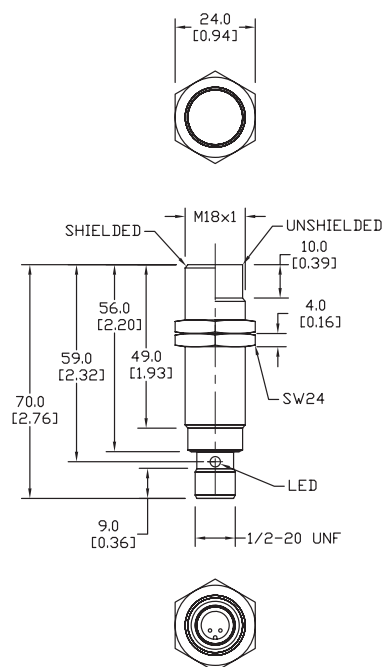
| VFK Series Food and Beverage AC Inductive Proximity Specifications |                                                  |                            |
|--------------------------------------------------------------------|--------------------------------------------------|----------------------------|
| 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 <a href="#">Material influence table</a> |                            |
| 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 <a href="#">Proximity Sensor Terminology</a> |                            |
| 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                     |                            |

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

## Dimensions

mm [inches]

Figure 1





# 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] |
| <a href="#">OPT2104</a>      | \$10.50 | Wenglor mounting bracket, right-angle, fixed insertion stop adjustment, plastic. For use with 18mm sensors. | <a href="#">PDF</a> | 0.06 [27.2]   |
| <a href="#">OPT2105</a>      | \$10.50 | Wenglor mounting bracket, right-angle, plastic. For use with 18mm sensors.                                  | <a href="#">PDF</a> | 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] |
| <a href="#">OPT2116</a>      | \$11.50 | 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 | <a href="#">PDF</a> | 0.15 [68.0]   |
| <a href="#">OPT2117</a>      | \$21.00 | 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 | <a href="#">PDF</a> | 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)    |
| <a href="#">OPT2109</a>                                 | \$13.00 | Wenglor mounting rod, 12mm diameter, 200mm length, 304 stainless steel. | <a href="#">PDF</a> | 0.41<br>[185.97] |
| <a href="#">OPT2110</a>                                 | \$16.00 | Wenglor mounting rod, 12mm diameter, 300mm length, 304 stainless steel. | <a href="#">PDF</a> | 0.60<br>[272.16] |
| <a href="#">OPT2111</a>                                 | \$21.00 | Wenglor mounting rod, 12mm diameter, 500mm length, 304 stainless steel. | <a href="#">PDF</a> | 0.98<br>[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]  |
| <a href="#">OPT2108</a>                        | \$16.00 | Wenglor mounting bracket, right-angle, nickel-plated brass. For use with 12mm mounting rods OPT2109, OPT2110 & OPT2111. | <a href="#">PDF</a> | 0.07<br>[31.8] |

