

# V Series AC/DC Inductive Proximity Sensors



## M8 (8mm)

- Low cost/high performance
- LED status indicators are visible at a wide angle
- Axial cable or 1/2 in. micro AC quick-disconnect models
- Purchase cable separately (for quick-disconnect models)
- Lifetime warranty



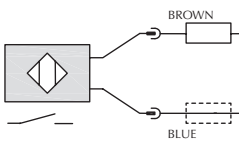
### V Series M8 AC/DC Inductive Proximity Selection Chart

| Part Number                  | Price   | Sensing Range <sup>1</sup> | Mounting  | Output State                  | Voltage        | Connection                             | Wiring    | Dimensions |
|------------------------------|---------|----------------------------|-----------|-------------------------------|----------------|----------------------------------------|-----------|------------|
| <a href="#">V3E1-R0-3A8F</a> | \$46.00 | 2mm [0.0787 in]            | Flush     | N.O.                          | 20–120 VAC/VDC | 2m [6.5 ft] axial cable                | Diagram 1 | Figure 1   |
| <a href="#">V3E1-S0-3A8F</a> | \$46.00 |                            |           | N.C.                          |                |                                        | Diagram 2 |            |
| <a href="#">V3E1-R0-3Q</a>   | \$46.00 |                            |           | N.O. (VAC) or N.O./N.C. (VDC) | 20–250 VAC/VDC | 1/2"-20 UNF, micro AC quick-disconnect | Diagram 3 | Figure 2   |
| <a href="#">V3E1-S0-3Q</a>   | \$46.00 |                            |           | N.C. (VAC) or N.O./N.C. (VDC) |                |                                        | Diagram 4 |            |
| <a href="#">V3E1-R0-4A8F</a> | \$46.00 | 4mm [0.1574 in]            | Non-flush | N.O.                          | 20–120 VAC/VDC | 2m [6.5 ft] axial cable                | Diagram 1 | Figure 1   |
| <a href="#">V3E1-S0-4A8F</a> | \$46.00 |                            |           | N.C.                          |                |                                        | Diagram 2 |            |
| <a href="#">V3E1-R0-4Q</a>   | \$46.00 |                            |           | N.O. (VAC) or N.O./N.C. (VDC) | 20–250 VAC/VDC | 1/2"-20 UNF, micro AC quick-disconnect | Diagram 3 | Figure 2   |
| <a href="#">V3E1-S0-4Q</a>   | \$46.00 |                            |           | N.C. (VAC) or N.O./N.C. (VDC) |                |                                        | Diagram 4 |            |

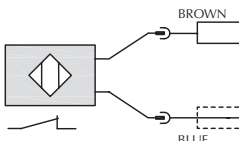
<sup>1</sup>Standard target Fe360

## Wiring Diagrams

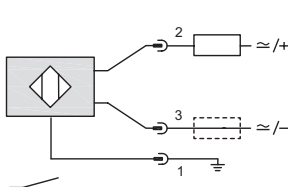
### Diagram 1



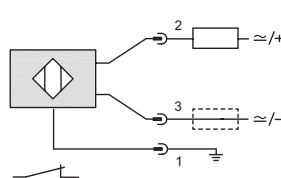
### Diagram 2



### Diagram 3

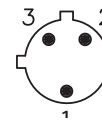


### Diagram 4



### Connector

1/2 in. micro AC



# V Series AC/DC Inductive Proximity Sensors

## V Series M8 AC/DC Inductive Proximity Specifications

| Mounting Type                               | Flush                                                                | Non-flush |
|---------------------------------------------|----------------------------------------------------------------------|-----------|
| Nominal Sensing Distance (mm)               | 2                                                                    | 4         |
| Operating Distance                          | 0–1.6 mm                                                             | 0–3.2 mm  |
| Material Correction Factors                 | See Material Influence Table                                         |           |
| Output Type                                 | N.O./N.C. for Plug;<br>N.O. or N.C. for Cable                        |           |
| Operating Voltage                           | 20–120 VAC/VDC;<br>20–250 VAC/VDC (Plug only)                        |           |
| No-load Supply Current                      | 1mA (VAC) 0.7 mA (VDC Plug)<br>0.55 mA (VAC) 0.40 mA (VDC Cable)     |           |
| Operating (Load) Current                    | DC                                                                   | 80mA      |
|                                             | AC                                                                   | 55mA      |
| Off-state Leakage Current                   | DC                                                                   | 0.40 mA   |
|                                             | AC                                                                   | 0.55 mA   |
| Voltage Drop                                | ≤ 7.5 VAC / ≤ 8.5 VDC                                                |           |
| Switching Frequency                         | 900Hz                                                                | 750Hz     |
| Differential Travel (% of Nominal Distance) | 1–20%                                                                |           |
| Repeat Accuracy                             | ≤ 5%                                                                 |           |
| Peak Current                                | 600mA/150ms Plug<br>150mA/150ms Cable                                |           |
| Time Delay Before Availability (tv)         | 100ms                                                                |           |
| Short Circuit Protection                    | Yes                                                                  |           |
| Operating Temperature                       | -25 to +70°C [-13 to 158°F]                                          |           |
| Protection Degree (DIN 40050)               | IP67                                                                 |           |
| LED Indicators                              | Yellow [Output energized]                                            |           |
| Housing Material                            | Nickel-plated brass                                                  |           |
| Sensing Face Material                       | PA4T                                                                 |           |
| Shock/Vibration                             | IEC 60947-5-2                                                        |           |
| Tightening Torque                           | 2 N·m (1.48 lb·ft)                                                   |           |
| Weight                                      | 20g Plug; 70g Cable                                                  |           |
| Connection                                  | 2m [6.5 ft] axial cable or<br>1/2"-20 UNF, micro AC quick-disconnect |           |
| Agency Approvals                            | CE, UL E187310                                                       |           |

Note: Standard Target Fe360

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

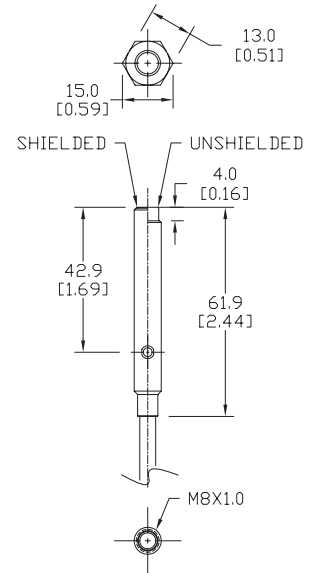
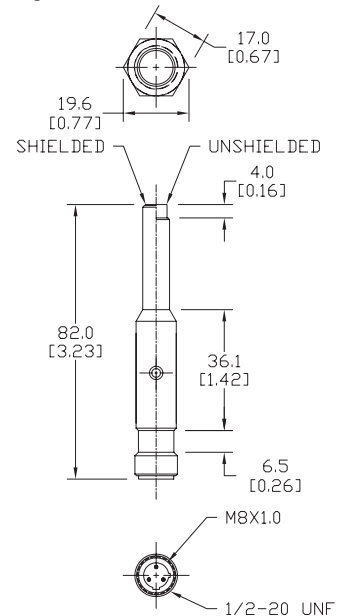


Figure 2



NOTE: Each sensor ships with jam nuts.

# Accessories for 8mm Sensors

## Axial Mounting Bracket

Mounting bracket, axial, zinc-plated steel. For use with 8mm sensors. Has two mounting holes (use 3 mm screws) and allows the rotation of an optical axis for axial sensors. Hexagonal nuts not included.

| Accessories for 8mm Sensors  |        |                                                                                          |                            |             |
|------------------------------|--------|------------------------------------------------------------------------------------------|----------------------------|-------------|
| Part Number                  | Price  | Description                                                                              | Drawing Link               | Weight [lb] |
| <a href="#"><u>ST08A</u></a> | \$2.00 | Micro Detectors mounting bracket, axial, zinc plated steel.<br>For use with 8mm sensors. | <a href="#"><u>PDF</u></a> | 0.04        |



[ST08A](#)

## Right-angle Mounting Bracket

Mounting bracket, right-angle, zinc-plated steel. For use with 8mm sensors. Has two mounting holes (use 3mm screws) and allows the rotation of an optical axis for right-beam-angle-adaptor sensors. Hexagonal nuts not included.

| Accessories for 8mm Sensors  |        |                                                                                                |                            |             |
|------------------------------|--------|------------------------------------------------------------------------------------------------|----------------------------|-------------|
| Part Number                  | Price  | Description                                                                                    | Drawing Link               | Weight [lb] |
| <a href="#"><u>ST08C</u></a> | \$2.00 | Micro Detectors mounting bracket, right-angle, zinc plated steel.<br>For use with 8mm sensors. | <a href="#"><u>PDF</u></a> | 0.04        |



[ST08C](#)

# Accessories for 8mm Sensors

## Right-angle Mounting Bracket

Mounting bracket, right-angle, plastic. For use with 8mm sensors.

| Accessories for 8mm Sensors    |        |                                                                              |                            |             |
|--------------------------------|--------|------------------------------------------------------------------------------|----------------------------|-------------|
| Part Number                    | Price  | Description                                                                  | Drawing Link               | Weight [lb] |
| <a href="#"><u>OPT2101</u></a> | \$8.00 | Wenglor mounting bracket, right-angle, plastic.<br>For use with 8mm sensors. | <a href="#"><u>PDF</u></a> | 0.02        |



[OPT2101](#)

## Right-angle Swivel Mounting Systems

Mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment. For use with 8mm sensors. Available in all stainless steel or with an aluminum head and stainless steel mounting plate.

| Accessories for 8mm Sensors    |         |                                                                                                                                                             |                     |                     |                            |             |
|--------------------------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------|----------------------------|-------------|
| Part Number                    | Price   | Description                                                                                                                                                 | Mounting Head       | Mounting Plate      | Drawing Link               | Weight [lb] |
| <a href="#"><u>OPT2112</u></a> | \$11.50 | Wenglor mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment, aluminum, 12mm rod mount. For use with 8mm sensors.            | Aluminum            | 304 Stainless Steel | <a href="#"><u>PDF</u></a> | 0.14        |
| <a href="#"><u>OPT2113</u></a> | \$21.00 | Wenglor mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment, 304 stainless steel, 12mm rod mount. For use with 8mm sensors. | 304 Stainless Steel | 304 Stainless Steel | <a href="#"><u>PDF</u></a> | 0.26        |



[OPT2112 & OPT2113](#)

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