

PS Series Fork Sensors

Fork Sensor L-frame- Visible Red Light



- Rugged metal one-piece housing - always in alignment
- Easy installation
- Visible red light - easy setup
- Glass optics
- High resolution
- Light / Dark operation selectable
- Adjustable sensitivity
- High switching frequency
- M8 connector with 360° LED

| PS Series Fork Sensor L-frame Selection Chart - Visible Red Light | | | | | | | |
|---|----------|-----------------|-----------------------------|-----------|--------------|-----------|------------|
| Part Number | Price | Sensing Range | Output State | Logic | Connection | Wiring | Dimensions |
| PSWR-0N-4F | \$109.00 | 60mm (2.36 in) | Light On/Dark On Selectable | NPN | M8 connector | Diagram 1 | Figure 1 |
| PSWR-0P-4F | \$109.00 | | | PNP | | Diagram 2 | |
| PSWR-0N-5F | \$122.00 | 80mm (3.15 in) | | NPN | | Diagram 1 | Figure 2 |
| PSWR-0P-5F | \$122.00 | | | PNP | | Diagram 2 | |
| PSWR-0N-6F | \$133.00 | 100mm (3.94 in) | | NPN | | Diagram 1 | Figure 3 |
| PSWR-0P-6F | \$133.00 | | | PNP | | Diagram 2 | |
| PSWR-0N-7F | \$142.00 | 130mm (5.12 in) | | NPN | | Diagram 1 | Figure 4 |
| PSWR-0P-7F | \$142.00 | | | PNP | | Diagram 2 | |
| PSWR-0N-8F | \$157.00 | 160mm (6.30 in) | NPN | Diagram 1 | Figure 5 | | |
| PSWR-0P-8F | \$157.00 | | PNP | Diagram 2 | | | |

Wiring diagrams

Diagram 1

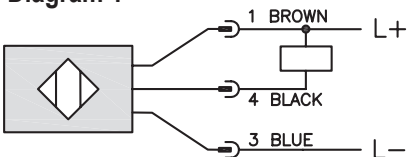
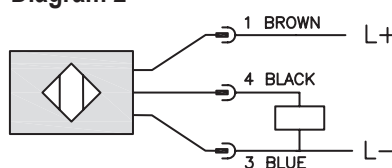
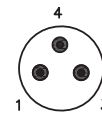


Diagram 2



Connectors

M8 connector



PS Series Fork Sensors

| Specifications | | |
|--|--|---|
| | L-frame Visible Red Light | L-frame Infrared |
| Mounting Type | Angle | |
| Sensing Distance | 60 mm (2.36 in) to 160mm (6.23 in) | |
| Smallest Detectable Object | PSWR 4F 0.3 mm (0.012 in) PSWR 5F-6F 0.4 mm (0.016 in) PSWR 7F 0.5 mm (0.020 in) PSWR 8F 0.6 mm (0.024 in) | PSWI 4F 1.0 mm (0.039 in) PSWI 5F 1.2 mm (0.047 in) PSWI 6F-7F-8F 1.5 mm (0.059 in) |
| Emission | Visible Red Light | Infrared Light |
| Sensitivity | Adjustable Potentiometer (0 to 270°) | |
| Output Type | NPN or PNP/ Light on/Dark on/ 3-wire | |
| Operating Voltage | 10 to 30 VDC | |
| No-load Supply Current | ≤ 35mA | |
| Operating (Load) Current | 200mA | |
| Off-state (Leakage) Current | N/A | |
| Voltage Drop | ≤ 3.0V (PNP); ≤2.5 (NPN) | |
| Switching Frequency | PSWRx 1.5kHz | PSWI 4F-6F, 8F 2kHz; PSWI7F 1kHz |
| Differential Travel | N/A | |
| Repeat Accuracy | PSWR4F < 0.04mm; PSWR5F < 0.06mm; | PSWI4F < 0.12 mm; PSWI5F < 0.15 mm; PSWI4 6F-7F-8F < 0.2 mm |
| Ripple | N/A | |
| Time Delay Before Availability (tv) | N/A | |
| Reverse Polarity Protection | Yes | |
| Short-Circuit Protection | Yes | |
| Operating Temperature | -10 to +60°C (+14 to +140°F) | |
| Protection Degree (DIN 40050) | IP67 | |
| Indication/Switch Status | On Yellow LED | |
| Housing Material | GD Zn (Gadolinium-Zinc) | |
| Sensing Face Material | Glass | |
| Shock | Meets IEC 68-2-27 (See Photoelectric Sensor at the end of this section for more details) | |
| Vibration | Meets IEC 68-2-6 (See Photoelectric Sensor at the end of this section for more details) | |
| Tightening Torque | N/A | |
| Weight | PSWx4F 94g (3.32 oz) PSWx5F 125g (4.41 oz) PSWx6F 150g (5.29 oz) PSWx7F 233g (8.22oz) PSWx8F 334g (11.78 oz) | |
| Connection | M8 connector | |
| Agency Approvals | UL E328811- CE | |

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

PS Series Fork Sensors

Dimensions

mm [inch]

Figure 1

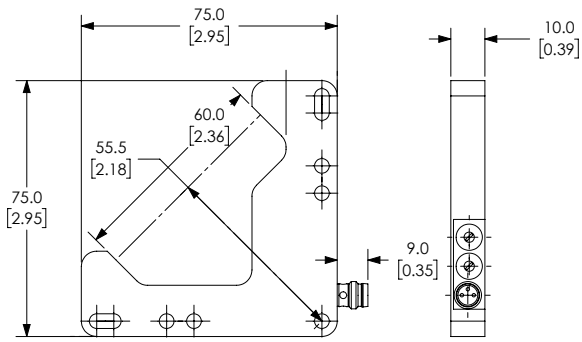


Figure 2

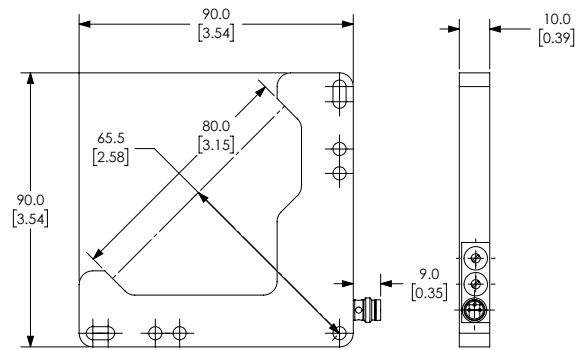


Figure 3

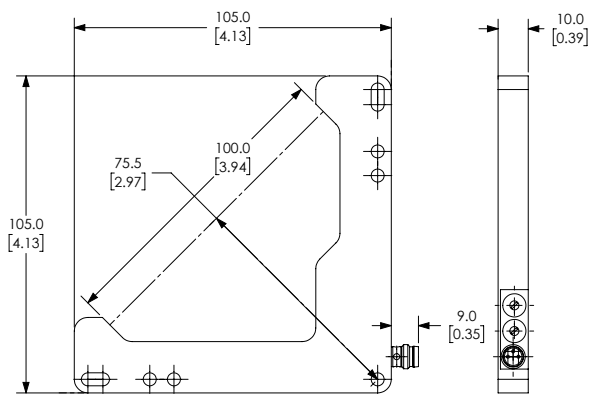
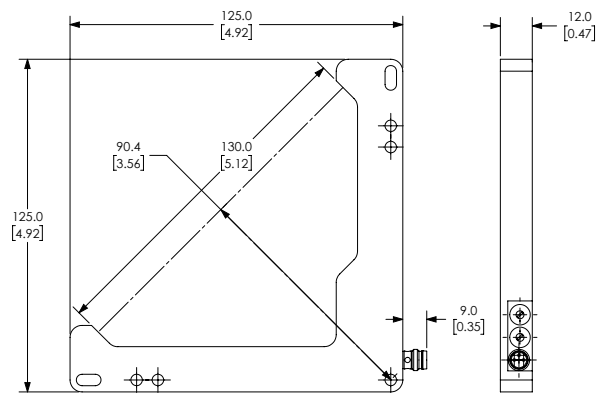


Figure 4



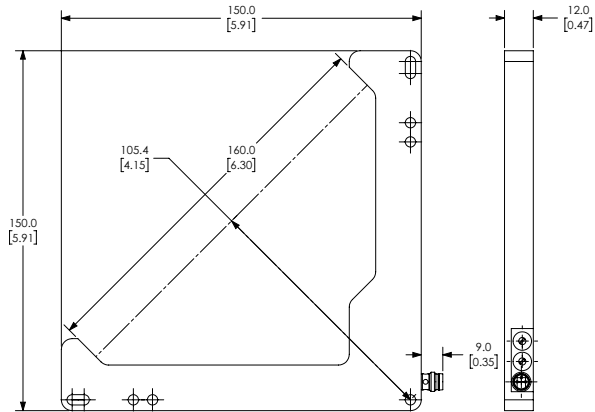
See our website: www.AutomationDirect.com for complete Engineering drawings.

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Dimensions

mm [inch]

Figure 5



See our website: www.AutomationDirect.com for complete Engineering drawings.