

PS Series Fork Sensors

Fork Sensor L-frame- Infrared Light



- Rugged metal one-piece housing - always in alignment
- Easy installation
- Infrared 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 - Infrared Light							
Part Number	Price	Sensing Range	Output State	Logic	Connection	Wiring	Dimensions
PSWI-0N-4F		60mm (2.36 in)	Light On/Dark On Selectable	NPN	M8 connector	Diagram 1	Figure 1
PSWI-0P-4F				PNP		Diagram 2	
PSWI-0N-5F		80mm (3.15 in)		NPN		Diagram 1	Figure 2
PSWI-0P-5F				PNP		Diagram 2	
PSWI-0N-6F		100mm (3.94 in)		NPN		Diagram 1	Figure 3
PSWI-0P-6F				PNP		Diagram 2	
PSWI-0N-7F		130mm (5.12 in)		NPN		Diagram 1	Figure 4
PSWI-0P-7F				PNP		Diagram 2	
PSWI-0N-8F		160mm (6.30 in)		NPN		Diagram 1	Figure 5
PSWI-0P-8F				PNP		Diagram 2	

Wiring diagrams

Diagram 1

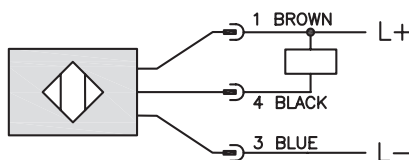
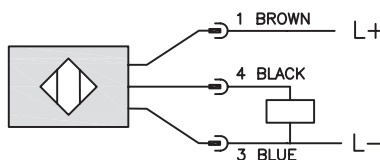
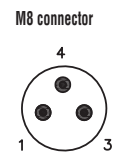


Diagram 2



Connectors



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	≤ 35 mA	
Operating (Load) Current	200 mA	
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°C to +60°C (+14°F 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

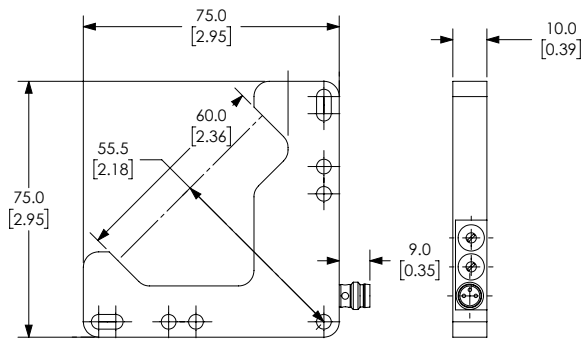


Figure 2

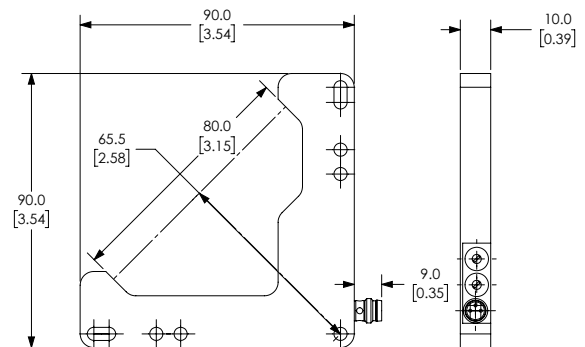


Figure 3

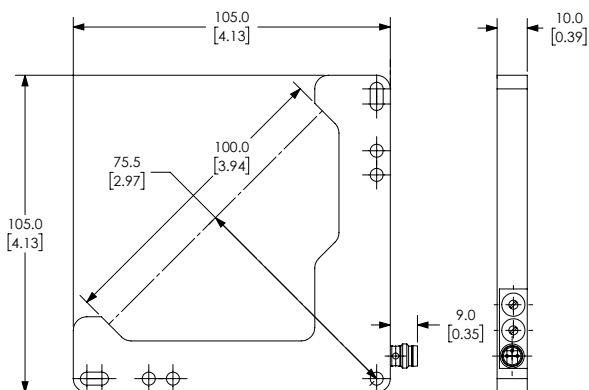
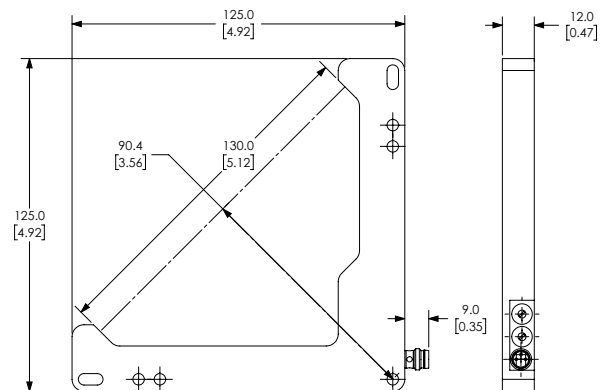


Figure 4



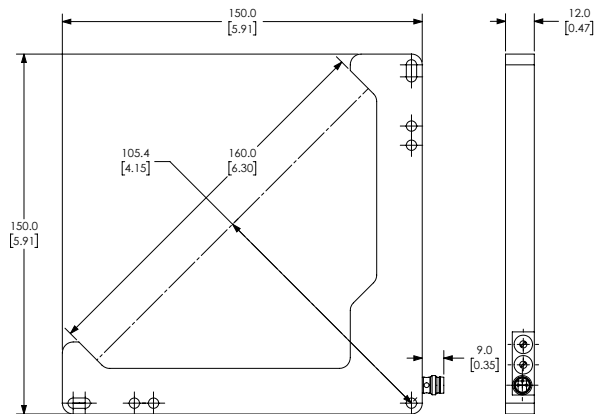
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PS Series Fork Sensors

Dimensions

mm

[inch]

Figure 5

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