

V Series AC & AC/DC Inductive Proximity Sensors



M30 (30mm)

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



V Series M30 AC & AC/DC Inductive Prox Selection Chart

Part Number	Price	Sensing Range ¹	Housing	Output State	Voltage	Connection	Wiring	Dimensions
Standard								
VT1-A0-1B	\$37.50	10mm (0.394 in)	Shielded	NO	20-253 VAC	2m (6.5 ft) axial cable	Diagram 2	Figure 1
VT1-A0-2B	\$37.50	15mm (0.590 in)	Unshielded					
Extended								
V3T1-R0-3A8F	\$39.50	12mm (0.472 in)	Shielded	N.O. (VAC) or N.O./N.C. (VDC)	20-250 VAC/VDC	2m (6.5 ft) axial cable	Diagram 1	Figure 2
V3T1-S0-3A8F	\$39.50			N.C. (VAC) or N.O./N.C. (VDC)			Diagram 3	Figure 2
V3T1-R0-3Q	\$39.50			N.O. (VAC) or N.O./N.C. (VDC)		1/2"-20 UNF, micro AC quick-disconnect	Diagram 4	Figure 3
V3T1-S0-3Q	\$39.50			N.C. (VAC) or N.O./N.C. (VDC)			Diagram 5	Figure 3
V3T1-R0-4A8F	\$39.50	18mm (0.708 in)	Unshielded	N.O. (VAC) or N.O./N.C. (VDC)		2m (6.5 ft) axial cable	Diagram 1	Figure 2
V3T1-S0-4A8F	\$39.50			N.C. (VAC) or N.O./N.C. (VDC)			Diagram 3	Figure 2
V3T1-R0-4Q	\$39.50			N.O. (VAC) or N.O./N.C. (VDC)		1/2"-20 UNF, micro AC quick-disconnect	Diagram 4	Figure 3
V3T1-S0-4Q	\$39.50			N.C. (VAC) or N.O./N.C. (VDC)			Diagram 5	Figure 3

¹With 30x30 Fe360 target

Wiring Diagrams

Diagram 1

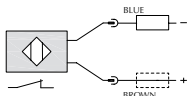
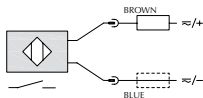


Diagram 3

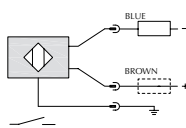
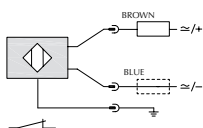


Diagram 2

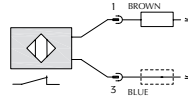
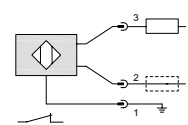
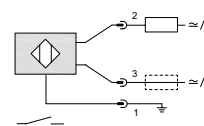


Diagram 4



Connector

1/2 in. micro AC

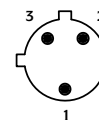
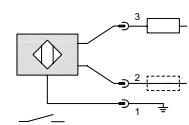
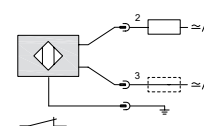


Diagram 5



V Series AC & AC/DC Inductive Proximity Sensors

M30 (30mm)

Specifications	VT1 Models		V3T1 Models	
Mounting Type	Shielded	Unshielded	Shielded	Unshielded
Nominal Sensing Distance (mm)	5	8	12	18
Operating Distance	NA		0–9.7 mm	0–14.6 mm
Material Correction Factors	See Material Influence Table			
Output Type	Triac/NO/2-wire		NO or NC (VAC) NO/NC (VDC)	
Operating Voltage	20–253 VAC, 50/60 Hz		20–250 VAC/VDC	
No-load Supply Current	NA			
Operating (Load) Current	DC	5–300 mA (RMS)	200mA	
	AC	NA	140mA	
Off-state Leakage Current	DC	1.0 mA max. (RMS)	0.70 mA	
	AC	NA	1mA	
Voltage Drop	≤ 8.8 VAC		≤ 7.5 VAC / ≤ 8VDC	
Switching Frequency	25Hz		250Hz	190Hz
Differential Travel (% of Nominal Distance)	2–10%		1–20%	
Repeat Accuracy	5%		≤ 5%	
Ripple	NA		600mA/150mA Max.	
Time Delay Before Availability (tv)	200ms		100ms	
Reverse Polarity Protection	NA		Yes	
Short Circuit Protection:	No		Overload	
			Overvoltage	
Operating Temperature	-25° to +70°C (-13° to 158°F)		-25° to +70°C (-13° to 158°F)	
Protection Degree (DIN 40 050)	IEC IP67		IP67	
LED Indicators	Yellow (output energized)			
Housing Material	Nickel-plated brass			
Sensing Face Material	Polybutylene Terephthalate (PBT)		PA4T	
Shock/Vibration	IEC 60947-5-2			
Tightening Torque	25 N·m (18.44 lb·ft)		50 N·m (37 lb·ft)	
Weight	120g (4.23 oz)		120g Plug; 170g Cable	
Connection	2m (6.5 ft) axial cable		2m (6.5 ft) axial cable or 1/2"–20 UNF, micro AC quick-disconnect	
Agency Approvals	CE, UL Recognized file E130644		CE, UL E187310	

Dimensions

mm [inches]

Figure 1

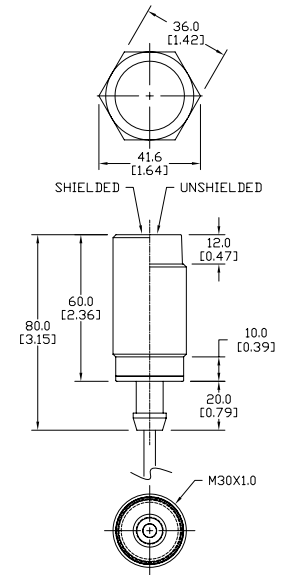


Figure 2

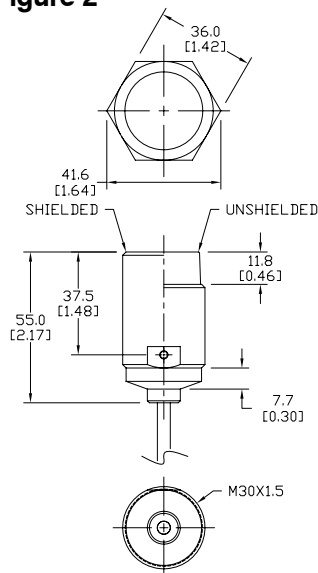
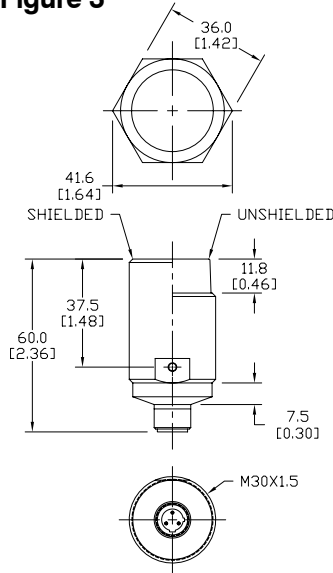


Figure 3



NOTE: Each sensor ships with jam nuts.

Accessories for 30mm Sensors

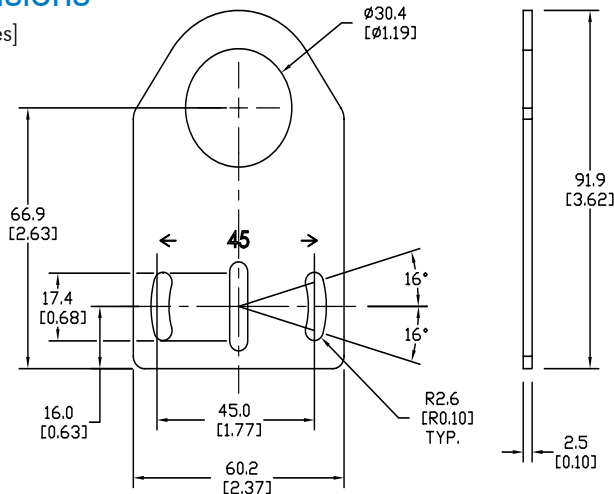
Axial Mounting Bracket

Mounting bracket, axial, zinc-plated steel. For use with 30mm sensors. Has two mounting holes (use 5mm screws) and allows the rotation of an optical axis for right-beam-angle-adaptor sensors. Hexagonal nuts not included.

Accessories for 30mm Sensors			
Part Number	Price	Description	Weight [lb]
ST30A	\$2.25	Mounting bracket, axial, zinc-plated steel. For use with 30mm sensors. 1/pk.	0.18

Dimensions

mm [inches]



ST30A

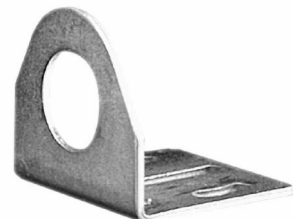
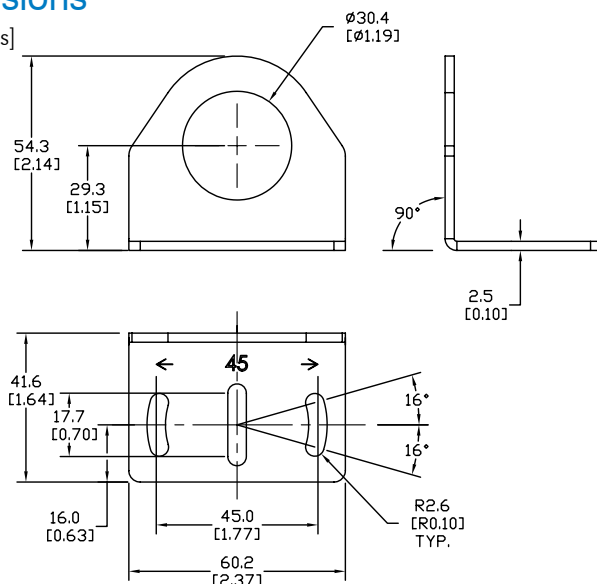
Right-angle Mounting Bracket

Mounting bracket, right-angle, zinc-plated steel. For use with 30mm sensors. Has two mounting holes (use 5mm screws) and allows the rotation of an optical axis for axial sensors. Hexagonal nuts not included.

Accessories for 30mm Sensors			
Part Number	Price	Description	Weight [lb]
ST30C	\$2.25	Mounting bracket, right angle, zinc-plated steel. For use with 30mm sensors. 1/pk.	0.18

Dimensions

mm [inches]



ST30C

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Accessories for 30mm Sensors

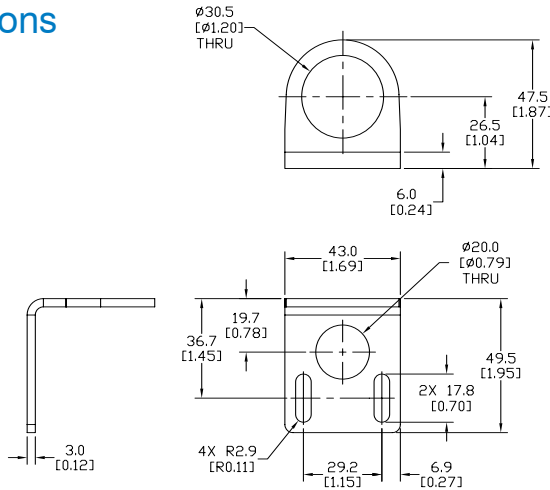
Right-angle Mounting Bracket

Mounting bracket, right-angle, 304 stainless steel. For use with 30mm sensors.

Accessories for FW Series Sensors			
Part Number	Price	Description	Weight [lb]
ST30C6W	\$2.50	Mounting bracket, right angle, 304 stainless steel. For use with 30mm sensors.	0.15

Dimensions

mm [inches]



ST30C6W

Right-angle Swivel Mounting Systems

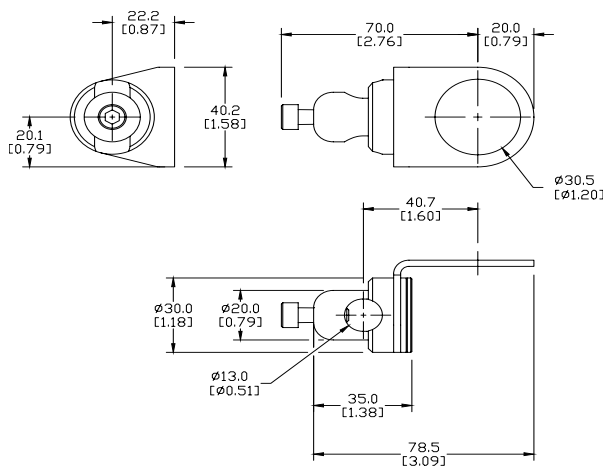
Mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment, 12mm rod mount. For use with 30mm sensors. Available in all 304 stainless steel or with an aluminum head with a 304 stainless steel mounting plate.

Accessories for 30mm Sensors					
Part Number	Price	Description	Mounting Head	Mounting Plate	Weight [lb]
OPT2118	\$9.00	Mounting bracket, right-angle swivel, 360 vertical and horizontal adjustment, aluminum, 12mm rod mount. For use with 30mm sensors.	Aluminum	304 Stainless Steel	0.18
OPT2119	\$16.00	Mounting bracket, right-angle swivel, 360 vertical and horizontal adjustment, 304 stainless steel, 12mm rod mount. For use with 30mm sensors.	304 Stainless Steel	304 Stainless Steel	0.30

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

Dimensions

mm [inches]



OPT2118, OPT2119

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