

# 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



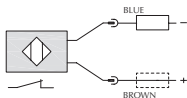
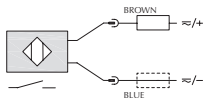
**V Series M30 AC & AC/DC Inductive Prox Selection Chart**

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

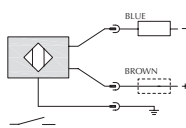
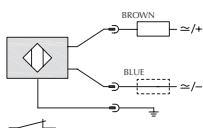
<sup>1</sup>With 30x30 Fe360 target

## Wiring Diagrams

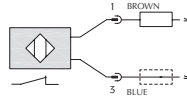
**Diagram 1**



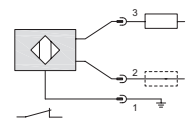
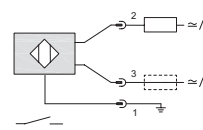
**Diagram 3**



**Diagram 2**

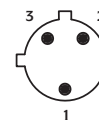


**Diagram 4**

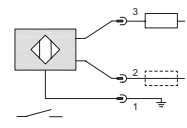
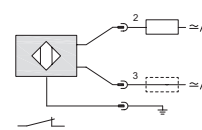


## Connector

1/2 in. micro AC



**Diagram 5**



# V Series AC & AC/DC Inductive Proximity Sensors

## M30 (30mm)

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

## Dimensions

mm [inches]

Figure 1

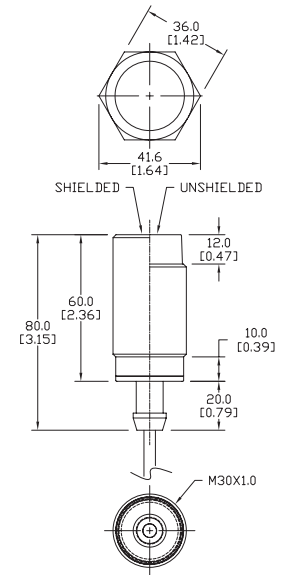


Figure 2

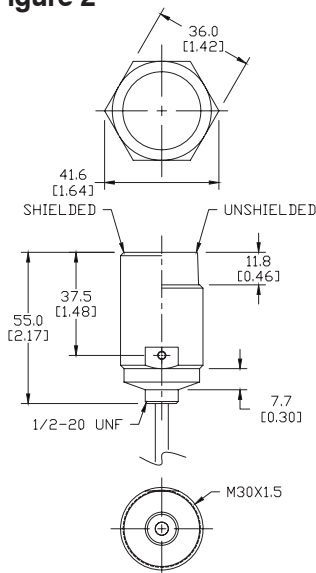
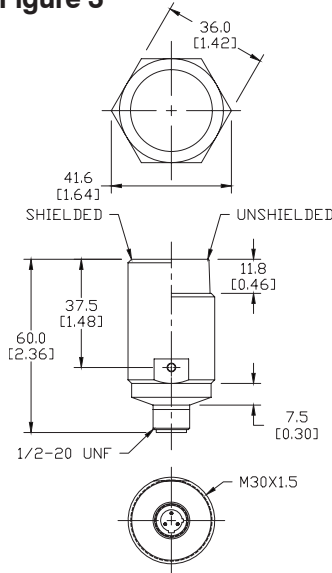


Figure 3



NOTE: Each sensor ships with jam nuts.

# Accessories for 30mm Sensors

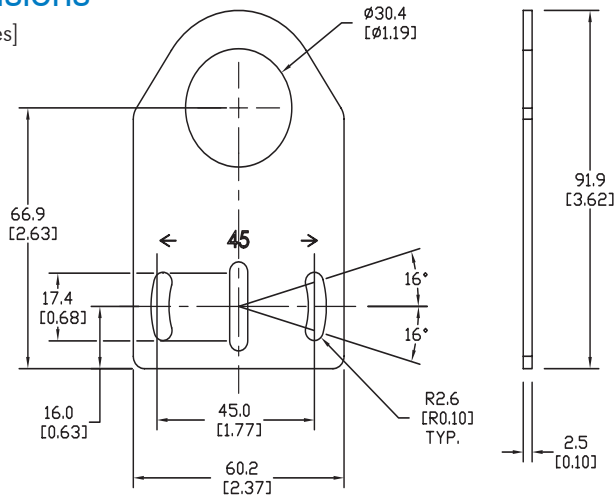
## Axial Mounting Bracket

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

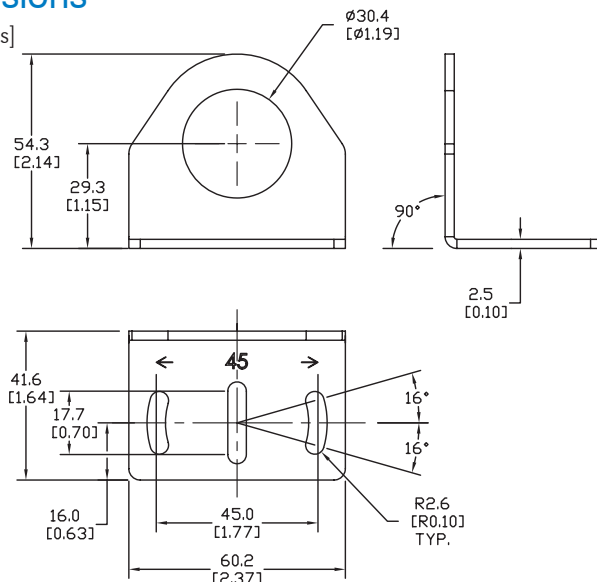
## Right-angle Mounting Bracket

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

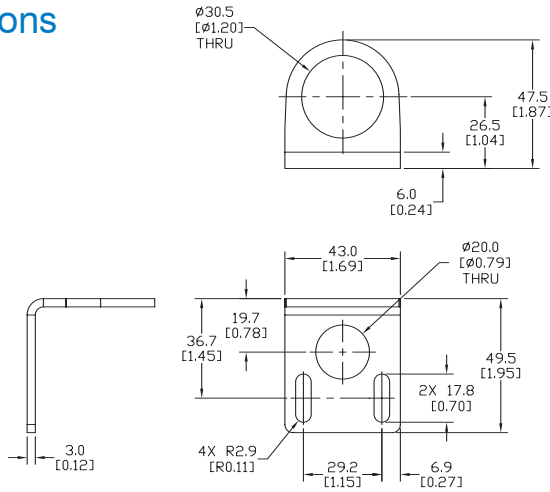
## Right-angle Mounting Bracket

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

Accessories for FW Series Sensors			
Part Number	Price	Description	Weight [lb]
<b>ST30C6W</b>	\$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

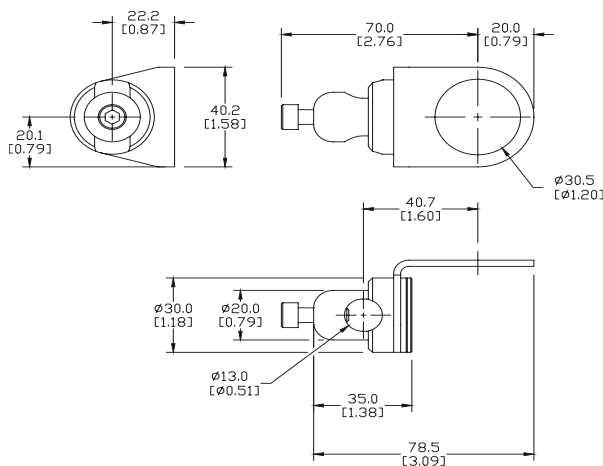
Mounting bracket, right-angle swivel, 360 degree vertical and horizontal adjustment, 12mm rod mount. For use with 30mm sensors. Available in all 304 stainless steel or with an aluminum head with a 304 stainless steel mounting plate.

Accessories for 30mm Sensors					
Part Number	Price	Description	Mounting Head	Mounting Plate	Weight [lb]
<b>OPT2118</b>	\$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
<b>OPT2119</b>	\$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](http://www.AutomationDirect.com) for complete engineering drawings