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

NEED CABLES?

V Series M8 AC/DC Inductive Proximity Selection Chart								
Part Number	*Price*	*Sensing Range[1]*	*Mounting*	*Output State*	*Voltage*	*Connection*	*Wiring*	*Dimensions*
V3E1-R0-3A8F	$1ohz:	2mm [0.0787 in]	Flush	N.O.	20–120 VAC/VDC	2m [6.5 ft] axial cable	Diagram 1	Figure 1
V3E1-S0-3A8F	$;1oh]:			N.C.			Diagram 2	
V3E1-R0-3Q	$;1oh[:			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
V3E1-S0-3Q	$1oh_:			N.C. (VAC) or N.O./N.C. (VDC)			Diagram 4	
V3E1-R0-4A8F	$1oh#:	4mm [0.1574 in]	Non-flush	N.O.	20–120 VAC/VDC	2m [6.5 ft] axial cable	Diagram 1	Figure 1
V3E1-S0-4A8F	$;1oh!:			N.C.			Diagram 2	
V3E1-R0-4Q	$1oh?:			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
V3E1-S0-4Q	$;1oh,:			N.C. (VAC) or N.O./N.C. (VDC)			Diagram 4	

[1] Standard target Fe360

Wiring Diagrams

Diagram 1
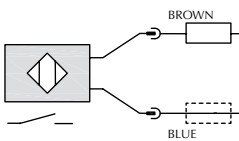
BROWN
BLUE

Diagram 2

BROWN
BLUE

Connector

1/2 in. micro AC

Diagram 3

2 ≃/+
3 ≃/−
1

Diagram 4

2 ≃/+
3 ≃/−
1

2 −
3 +
1

2 −
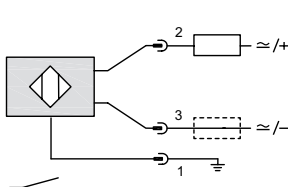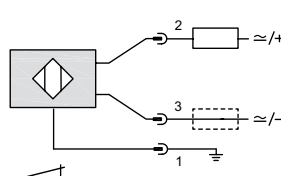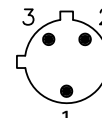3 +
1
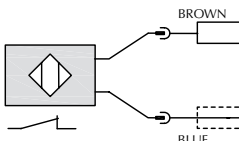
V Series AC/DC Inductive Proximity Sensors

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; N.O. or N.C. for Cable	
Operating Voltage	20–120 VAC/VDC; 20-250 VAC/VDC (Plug only)	
No-load Supply Current	1mA (VAC) 0.7 mA (VDC Plug) 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 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 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

SHIELDED   UNSHIELDED

13.0 [0.51]
15.0 [0.59]
4.0 [0.16]
42.9 [1.69]
61.9 [2.44]
M8X1.0

Figure 2

SHIELDED   UNSHIELDED

17.0 [0.67]
19.6 [0.77]
4.0 [0.16]
82.0 [3.23]
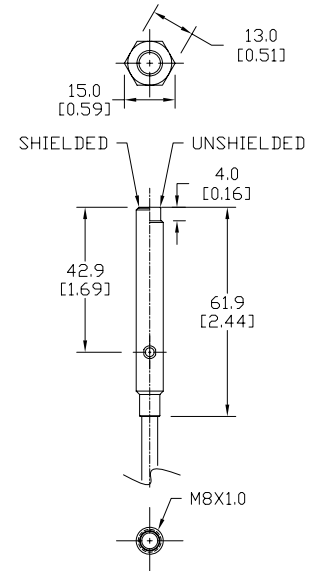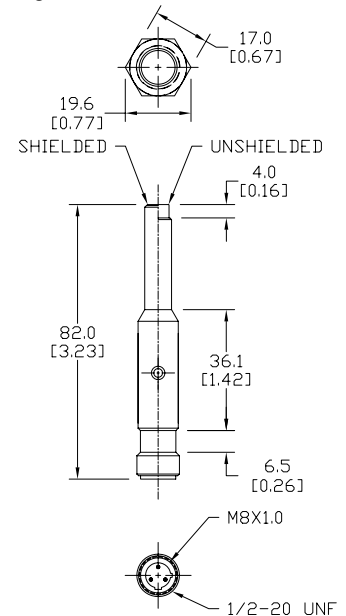36.1 [1.42]
6.5 [0.26]
M8X1.0
1/2-20 UNF

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]*
ST08A	$;10#t:	Micro Detectors mounting bracket, axial, zinc plated steel. For use with 8mm sensors.	PDF	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-adapter sensors. Hexagonal nuts not included.

Accessories for 8mm Sensors				
Part Number	*Price*	*Description*	*Drawing Link*	*Weight [lb]*
ST08C	$10#u:	Micro Detectors mounting bracket, right-angle, zinc plated steel. For use with 8mm sensors.	PDF	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]
OPT2101	$-1nlp:	Wenglor mounting bracket, right-angle, plastic. For use with 8mm sensors.	PDF	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]
OPT2112	$-1nlz:	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	PDF	0.14
OPT2113	$;-1nl]:	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	PDF	0.26

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

OPT2112 & OPT2113