

# AES Series Inductive Proximity Sensors



## Miniature M8 (8mm) Stainless Steel – DC

- NPN or PNP, N.O. or N.C.
- Complete overload protection
- IP67 rated
- Stainless steel construction
- Yellow output LED 360 degree visible
- Lifetime warranty

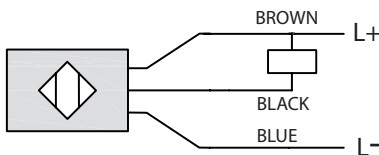


### AES Series M8 DC Inductive Proximity Selection Chart

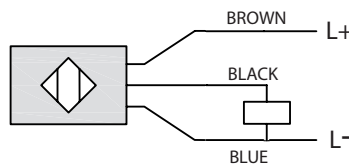
Part Number	Price	Sensing Range mm [in]	Mounting	Output State	Logic	Connection	Wiring	Drawing Link
Standard Distance								
<a href="#">AES-AN-1A</a>	\$21.00	1.5 [0.06]	Flush	N.O.	NPN	2m [6.5 ft] axial cable	Diagram 1	<a href="#">PDF</a>
<a href="#">AES-AP-1A</a>	\$21.00				PNP	2m [6.5 ft] axial cable	Diagram 2	<a href="#">PDF</a>
<a href="#">AES-AN-1F</a>	\$23.50				NPN	M8 connector	Diagram 3	<a href="#">PDF</a>
<a href="#">AES-AP-1F</a>	\$23.50				PNP	M8 connector	Diagram 4	<a href="#">PDF</a>
<a href="#">AES-CN-1A</a>	\$21.00			N.C.	NPN	2m [6.5 ft] axial cable	Diagram 1	<a href="#">PDF</a>
<a href="#">AES-CP-1A</a>	\$21.00				PNP	2m [6.5 ft] axial cable	Diagram 2	<a href="#">PDF</a>
<a href="#">AES-CN-1F</a>	\$23.50				NPN	M8 connector	Diagram 3	<a href="#">PDF</a>
<a href="#">AES-CP-1F</a>	\$23.50				PNP	M8 connector	Diagram 4	<a href="#">PDF</a>
Extended Distance								
<a href="#">AES-AN-3A</a>	\$26.50	2 [0.08]	Flush	N.O.	NPN	2m [6.5 ft] axial cable	Diagram 1	<a href="#">PDF</a>
<a href="#">AES-AP-3A</a>	\$26.50				PNP	2m [6.5 ft] axial cable	Diagram 2	<a href="#">PDF</a>
<a href="#">AES-AN-3F</a>	\$27.50				NPN	M8 connector	Diagram 3	<a href="#">PDF</a>
<a href="#">AES-AP-3F</a>	\$27.50				PNP	M8 connector	Diagram 4	<a href="#">PDF</a>
<a href="#">AES-CN-3A</a>	\$26.50			N.C.	NPN	2m [6.5 ft] axial cable	Diagram 1	<a href="#">PDF</a>
<a href="#">AES-CP-3A</a>	\$26.50				PNP	2m [6.5 ft] axial cable	Diagram 2	<a href="#">PDF</a>
<a href="#">AES-CN-3F</a>	\$27.50				NPN	M8 connector	Diagram 3	<a href="#">PDF</a>
<a href="#">AES-CP-3F</a>	\$27.50				PNP	M8 connector	Diagram 4	<a href="#">PDF</a>

## Wiring Diagrams

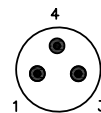
**Diagram 1**  
NPN Cable



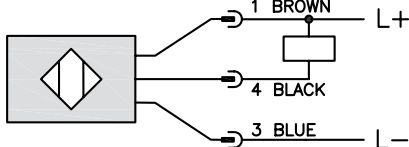
**Diagram 2**  
PNP Cable



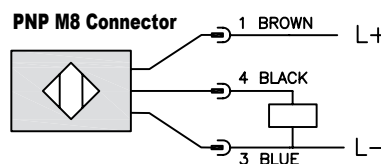
**Connector**  
M8 connector



**Diagram 3**  
NPN M8 Connector



**Diagram 4**



# AES Series Inductive Proximity Sensors

AES Series Specifications		
Specification	Standard Distance	Extended Distance
Mounting Type	Flush	
Nominal Sensing Distance	1.5 mm [0.06 in]	2mm [0.078 in]
Operating Distance	NA	
Material Correction Factors	See the Material influence table	
Output Type	NPN or PNP/N.O. or N.C./3-wire	
Operating Voltage	10 to 30 VDC	
No-load Supply Current	≤ 10mA	
Operating (Load) Current	≤ 100mA	
Off-state (Leakage) Current	≤ 10 μA	
Voltage Drop	≤1.5 V	
Switching Frequency	7kHz	
Differential Travel (% of Nominal Distance)	≤ 10%	
Repeat Accuracy	≤ 5%	
Ripple	≤ 10%	
Time Delay Before Availability (tv)	≤ 50 ms	
Reverse Polarity Protection	Yes	
Short-Circuit Protection	Yes (auto-reset)	
Operating Temperature	-25 to 70°C [-13 to 158° F]	
Protection Degree (DIN 40050)	IP67	
Indication/Switch Status	Yellow output (on energized)	
Housing Material	Stainless Steel	
Sensing Face Material	Polybutylene Terephthalate	
Shock/Vibration	See <a href="#">Proximity Sensor Terminology</a>	
Tightening Torque	4Nm (2.95 lb-ft)	
Weight	30g [1.06 oz] (cable version) 4g [0.14 oz] (M8 connector)	
Connection	2m [6.5 ft] PUR Cable or M8 Connector	
Agency Approvals	CE cULus E187310	

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

# 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]
<a href="#"><b>ST08A</b></a>	\$2.25	Micro Detectors mounting bracket, axial, zinc plated steel. For use with 8mm sensors.	<a href="#">PDF</a>	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-adaptor sensors. Hexagonal nuts not included.

Accessories for 8mm Sensors				
Part Number	Price	Description	Drawing Link	Weight [lb]
<a href="#"><b>ST08C</b></a>	\$2.25	Micro Detectors mounting bracket, right-angle, zinc plated steel. For use with 8mm sensors.	<a href="#">PDF</a>	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]
<a href="#"><u>OPT2101</u></a>	\$8.75	Wenglor mounting bracket, right-angle, plastic. For use with 8mm sensors.	<a href="#"><u>PDF</u></a>	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]
<a href="#"><u>OPT2112</u></a>	\$12.50	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	<a href="#"><u>PDF</u></a>	0.14
<a href="#"><u>OPT2113</u></a>	\$22.50	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	<a href="#"><u>PDF</u></a>	0.26



**[OPT2112 & OPT2113](#)**

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

# Mounting Rods and Brackets

## Mounting Rods

304 Stainless steel rods for mounting swivel brackets [OPT2112](#) - [OPT2127](#). Available in three lengths: 200mm, 300mm, and 500mm. 12mm diameter.

Mounting Rods for OPT2112-2127 Swivel Mounting Brackets				
Part Number	Price	Description	Drawing Link	Weight lb (g)
<a href="#">OPT2109</a>	\$14.00	Wenglor mounting rod, 12mm diameter, 200mm length, 304 stainless steel.	<a href="#">PDF</a>	0.41 [185.97]
<a href="#">OPT2110</a>	\$17.50	Wenglor mounting rod, 12mm diameter, 300mm length, 304 stainless steel.	<a href="#">PDF</a>	0.60 [272.16]
<a href="#">OPT2111</a>	\$22.50	Wenglor mounting rod, 12mm diameter, 500mm length, 304 stainless steel.	<a href="#">PDF</a>	0.98 [444.52]



## Right-angle Mounting Bracket

Mounting bracket, right-angle, nickel-plated brass. For use with 12mm mounting rods [OPT2109](#), [OPT2110](#) & [OPT2111](#).

Right-angle Mounting Brackets for 12mm Sensors				
Part Number	Price	Description	Drawing Link	Weight lb [g]
<a href="#">OPT2108</a>	\$17.50	Wenglor mounting bracket, right-angle, nickel-plated brass. For use with 12mm mounting rods OPT2109, OPT2110 & OPT2111.	<a href="#">PDF</a>	0.07 [31.8]

