

# AC1 Series Inductive Proximity Sensors



## Miniature Ø4 mm stainless steel

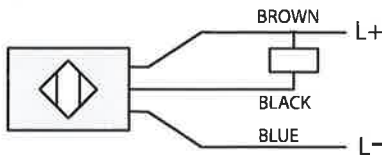
- Smooth barrel
- NPN or PNP, N.O. or N.C.
- Complete overload protection
- IP67 rated
- Stainless steel construction
- Yellow output LED 360 degree visible
- Lifetime warranty



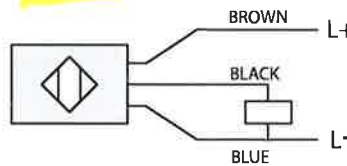
AC1 Series Ø4 mm Inductive Proximity Selection Chart								
Part Number	Price	Sensing Range mm [in]	Mounting	Output State	Logic	Connection	Wiring	Drawing Link
<b>Standard Distance</b>								
<a href="#">AC1-AN-1A</a>	\$26.50	0.8 [0.03]	Flush	N.O.	NPN	2m [6.5 ft] axial cable	Diagram 1	<a href="#">PDF</a>
<a href="#">AC1-AP-1A</a>	\$26.50	0.8 [0.03]	Flush	N.O.	PNP	2m [6.5 ft] axial cable	Diagram 2	<a href="#">PDF</a>
<a href="#">AC1-AN-1F</a>	\$27.50	0.8 [0.03]	Flush	N.O.	NPN	M8 connector	Diagram 3	<a href="#">PDF</a>
<a href="#">AC1-AP-1F</a>	\$27.50	0.8 [0.03]	Flush	N.O.	PNP	M8 connector	Diagram 4	<a href="#">PDF</a>
<a href="#">AC1-CN-1A</a>	\$26.50	0.8 [0.03]	Flush	N.C.	NPN	2m [6.5 ft] axial cable	Diagram 1	<a href="#">PDF</a>
<a href="#">AC1-CP-1A</a>	\$26.50	0.8 [0.03]	Flush	N.C.	PNP	2m [6.5 ft] axial cable	Diagram 2	<a href="#">PDF</a>
<a href="#">AC1-CN-1F</a>	\$27.50	0.8 [0.03]	Flush	N.C.	NPN	M8 connector	Diagram 3	<a href="#">PDF</a>
<a href="#">AC1-CP-1F</a>	\$27.50	0.8 [0.03]	Flush	N.C.	PNP	M8 connector	Diagram 4	<a href="#">PDF</a>
<b>Extended Distance</b>								
<a href="#">AC1-AN-3A</a>	\$30.50	1.5 [0.06]	Flush	N.O.	NPN	2m [6.5 ft] axial cable	Diagram 1	<a href="#">PDF</a>
<a href="#">AC1-AP-3A</a>	\$30.50	1.5 [0.06]	Flush	N.O.	PNP	2m [6.5 ft] axial cable	Diagram 2	<a href="#">PDF</a>
<a href="#">AC1-AN-3F</a>	\$31.50	1.5 [0.06]	Flush	N.O.	NPN	M8 connector	Diagram 3	<a href="#">PDF</a>
<a href="#">AC1-AP-3F</a>	\$31.50	1.5 [0.06]	Flush	N.O.	PNP	M8 connector	Diagram 4	<a href="#">PDF</a>
<a href="#">AC1-CN-3A</a>	\$30.50	1.5 [0.06]	Flush	N.C.	NPN	2m [6.5 ft] axial cable	Diagram 1	<a href="#">PDF</a>
<a href="#">AC1-CP-3A</a>	\$30.50	1.5 [0.06]	Flush	N.C.	PNP	2m [6.5 ft] axial cable	Diagram 2	<a href="#">PDF</a>
<a href="#">AC1-CN-3F</a>	\$31.50	1.5 [0.06]	Flush	N.C.	NPN	M8 connector	Diagram 3	<a href="#">PDF</a>
<a href="#">AC1-CP-3F</a>	\$31.50	1.5 [0.06]	Flush	N.C.	PNP	M8 connector	Diagram 4	<a href="#">PDF</a>

## Wiring Diagrams

**Diagram 1**  
NPN Cable



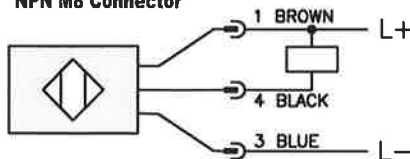
**Diagram 2**  
PNP Cable



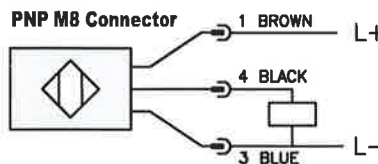
**Connector**  
M8 connector



**Diagram 3**  
NPN M8 Connector



**Diagram 4**  
PNP M8 Connector



\*smooth barrel (no threads)

# AC1 Series Inductive Proximity Sensors

AC1 Series Specifications		
Specification	Standard Distance	Extended Distance
Mounting Type	Flush	
Nominal Sensing Distance	0.8 mm [0.031 in]	1.5 mm [0.06 in]
Operating Distance	NA	
Material Correction Factors	See the <a href="#">Material influence table</a>	
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-resets)	
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	NA	
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 4mm Sensors

## Right-angle Mounting Bracket

Mounting bracket, right-angle, plastic. For use with 4mm sensors.

Accessories for 4mm Sensors				
Part Number	Price	Description	Drawing Link	Weight [lb]
<b><u>OPT2106</u></b>	\$8.00	Wenglor mounting bracket, right-angle, plastic. For use with 4mm sensors.	<a href="#">PDF</a>	0.02



**OPT2106**