

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
Standard Distance								
AC1-AN-1A	\$10_g:	0.8 [0.03]	Flush	N.O.	NPN	2m [6.5 ft] axial cable	Diagram 1	PDF
AC1-AP-1A	\$10_h:	0.8 [0.03]	Flush	N.O.	PNP	2m [6.5 ft] axial cable	Diagram 2	PDF
AC1-AN-1F	\$10_i:	0.8 [0.03]	Flush	N.O.	NPN	M8 connector	Diagram 3	PDF
AC1-AP-1F	\$10_j:	0.8 [0.03]	Flush	N.O.	PNP	M8 connector	Diagram 4	PDF
AC1-CN-1A	\$10_p:	0.8 [0.03]	Flush	N.C.	NPN	2m [6.5 ft] axial cable	Diagram 1	PDF
AC1-CP-1A	\$10_q:	0.8 [0.03]	Flush	N.C.	PNP	2m [6.5 ft] axial cable	Diagram 2	PDF
AC1-CN-1F	\$10_s:	0.8 [0.03]	Flush	N.C.	NPN	M8 connector	Diagram 3	PDF
AC1-CP-1F	\$10_t:	0.8 [0.03]	Flush	N.C.	PNP	M8 connector	Diagram 4	PDF
Extended Distance								
AC1-AN-3A	\$10_k:	1.5 [0.06]	Flush	N.O.	NPN	2m [6.5 ft] axial cable	Diagram 1	PDF
AC1-AP-3A	\$10_l:	1.5 [0.06]	Flush	N.O.	PNP	2m [6.5 ft] axial cable	Diagram 2	PDF
AC1-AN-3F	\$10_n:	1.5 [0.06]	Flush	N.O.	NPN	M8 connector	Diagram 3	PDF
AC1-AP-3F	\$10_o:	1.5 [0.06]	Flush	N.O.	PNP	M8 connector	Diagram 4	PDF
AC1-CN-3A	\$10_u:	1.5 [0.06]	Flush	N.C.	NPN	2m [6.5 ft] axial cable	Diagram 1	PDF
AC1-CP-3A	\$10_v:	1.5 [0.06]	Flush	N.C.	PNP	2m [6.5 ft] axial cable	Diagram 2	PDF
AC1-CN-3F	\$10_x:	1.5 [0.06]	Flush	N.C.	NPN	M8 connector	Diagram 3	PDF
AC1-CP-3F	\$10_y:	1.5 [0.06]	Flush	N.C.	PNP	M8 connector	Diagram 4	PDF

Wiring Diagrams

Diagram 1
NPN Cable

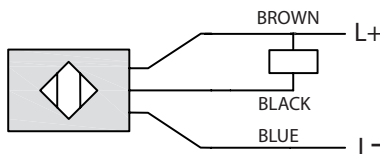
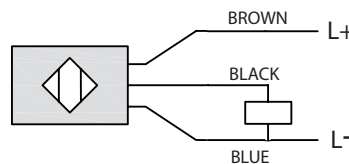


Diagram 2
PNP Cable



Connector
M8 connector

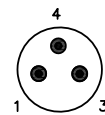


Diagram 3
NPN M8 Connector

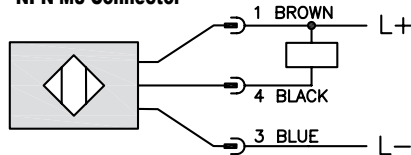
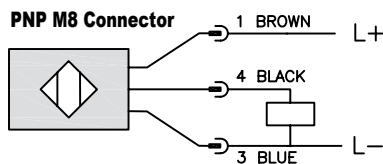


Diagram 4



*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 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-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 Proximity Sensor Terminology	
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]
OPT2106	\$-1nlv:	Wenglor mounting bracket, right-angle, plastic. For use with 4mm sensors.	PDF	0.02



[OPT2106](#)