

AHS Series Inductive Proximity Sensors



Miniature Ø6.5 mm stainless steel – DC

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

AHS Series Ø6.5 DC Inductive Proximity Selection Chart

Part Number	Price	Sensing Range mm [in]	Mounting	Output State	Logic	Connection	Wiring	Drawing Link
Standard Distance								
AHS-AN-1A		1.5 [0.06]	Flush	N.O.	NPN	2m [6.5 ft] axial cable	Diagram 1	PDF
AHS-AP-1A		1.5 [0.06]	Flush	N.O.	PNP	2m [6.5 ft] axial cable	Diagram 2	PDF
AHS-AN-1F		1.5 [0.06]	Flush	N.O.	NPN	M8 connector	Diagram 3	PDF
AHS-AP-1F		1.5 [0.06]	Flush	N.O.	PNP	M8 connector	Diagram 4	PDF
AHS-CN-1A		1.5 [0.06]	Flush	N.C.	NPN	2m [6.5 ft] axial cable	Diagram 1	PDF
AHS-CP-1A		1.5 [0.06]	Flush	N.C.	PNP	2m [6.5 ft] axial cable	Diagram 2	PDF
AHS-CN-1F		1.5 [0.06]	Flush	N.C.	NPN	M8 connector	Diagram 3	PDF
AHS-CP-1F		1.5 [0.06]	Flush	N.C.	PNP	M8 connector	Diagram 4	PDF
Extended Distance								
AHS-AN-3A		2 [0.08]	Flush	N.O.	NPN	2m [6.5 ft] axial cable	Diagram 1	PDF
AHS-AP-3A		2 [0.08]	Flush	N.O.	PNP	2m [6.5 ft] axial cable	Diagram 2	PDF
AHS-AN-3F		2 [0.08]	Flush	N.O.	NPN	M8 connector	Diagram 3	PDF
AHS-AP-3F		2 [0.08]	Flush	N.O.	PNP	M8 connector	Diagram 4	PDF
AHS-CN-3A		2 [0.08]	Flush	N.C.	NPN	2m [6.5 ft] axial cable	Diagram 1	PDF
AHS-CP-3A		2 [0.08]	Flush	N.C.	PNP	2m [6.5 ft] axial cable	Diagram 2	PDF
AHS-CN-3F		2 [0.08]	Flush	N.C.	NPN	M8 connector	Diagram 3	PDF
AHS-CP-3F		2 [0.08]	Flush	N.C.	PNP	M8 connector	Diagram 4	PDF

Wiring diagrams

Diagram 1

NPN Cable

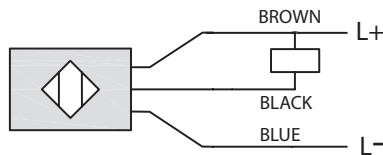
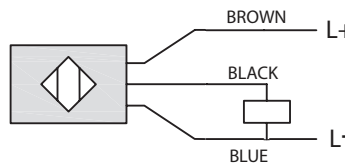


Diagram 2

PNP Cable



Connector

M8 connector

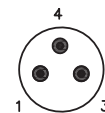


Diagram 3

NPN M8 Connector

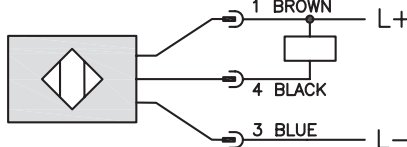
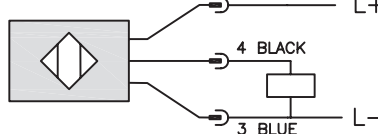


Diagram 4

PNP M8 Connector



AHS Series Inductive Proximity Sensors

AHS 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 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 6.5 mm Sensors

Right-angle Mounting Bracket

Mounting bracket, right-angle, plastic. For use with 6.5 mm sensors.

Accessories for 6.5 mm Sensors				
Part Number	Price	Description	Drawing Link	Weight [lb]
OPT2107		Wenglor mounting bracket, right-angle, plastic. For use with 6.5mm sensors.	PDF	0.02



[OPT2107](#)