

SHICO. INDUCTIVE SENSOR Series

MODEL : AS-10 Series

RS TYPE

-Sensor for Detecting Ferrous Metals

Shico Inductive Sensor is ideal for a variety of applications.

Models with different frequencies are also available to prevent interference. Superior environment resistance is ensured with standard cable made of oil-resistant PVC and sensing surface made of material that resists cutting oil. Cable protector is provided as a standard feature.



■ Specification

Sensing distance		5 mm
Differential travel		10% max. of sensing distance
Detectable object		Ferrous metal
Standard sensing object		Iron, 15x15 1mm
Response frequency		2,000Hz
Power supply voltage (operating voltage range)		12~30 VDC, ripple (p-p): 10% max.
current consumption		13 mA max.
Control output	Load current	20 mA max.
	residual volt	2 V max (Load current : 200 mA, Cable length:2m)
Maximum Current		100mA
Indicators		Operation indicator (red)
Output		PNP NO
Protection circuits		Load Short-circuit protection, Surge suppressor, Reverse polarity protection
Operating temperature		-25 ~ 75℃
Voltage influence		±1% max. of sensing distance at rated voltage in the rated voltage ±15% range
Insulation resistance		50 MΩ min. (at 500 VDC) between current-carrying parts and case
Dielectric strength		1,000 VAC, 50/60 Hz for 1 min between current-carrying parts and case
Vibration resistance		Destruction: 10 to 55 Hz, 1.5-mm double amplitude for 2 hours each in X, Y, and Z directions
Shock resistance		Destruction: 1,000 m/s ² 10 times each in X, Y, and Z directions
Degree of protection		Pre-wired Models: IEC 60529 IP67, in-house standards: oil-resistant Connector Models: IEC 60529 IP67
Connection method		Pre-wired Models (Standard cable length: 2 m) and Connector Models
IP		IP67
weight	Pre-wired models	Approx. 75 g
	Connector models	Approx. 25 g
Materials	case	Nickel-plated brass
	sensing surface	PBT
	Clamping nuts	Nickel-plated brass
	Toothed washer	Zinc-plated iron



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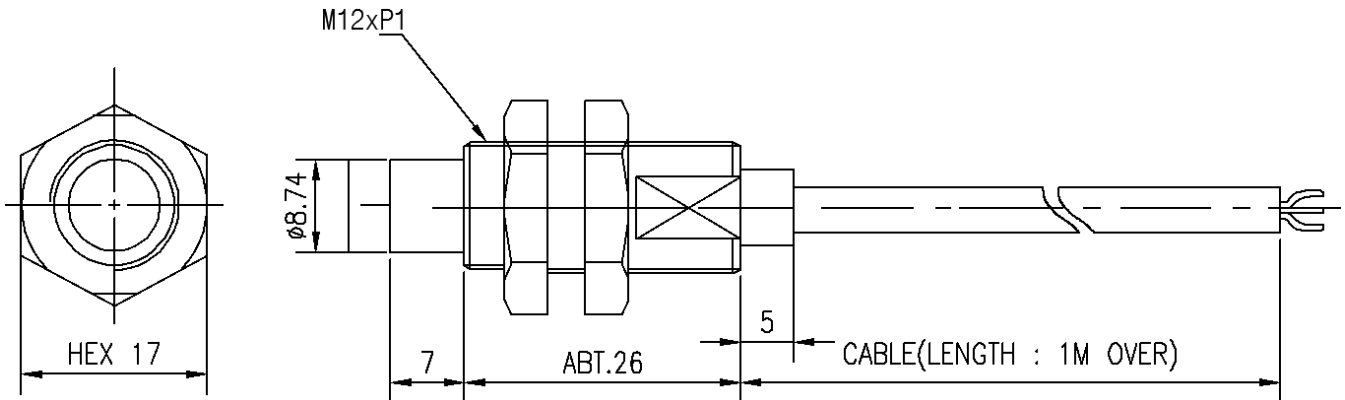
#48-2, 66-BeonGil, Golden root-Ro, Juchon Myeon, Gimhae-city Gyeongnam, Korea

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L-10

■ DIMENSION



- CONNECTION - BROWN : V+
BLACK : OUT
BLUE : 0V

■ Model Information

AS-10	P	Proximity sensors	
	R	Circumference type	
	L	Non described : Standard type	
		S	Short pipe
	L	Long pipe	
	W	Wiring withdrawal connector type	
		WL	Wiring withdrawal connector type with long pipe
	18	Circumference type : Diameter of active surface(mm)	
	5	Standard sensing distance (mm)	
	DN	DN : NPN NO (Normal Open)	
DN2 : NPN NC (Normal Close)			
DP : PNP NO (Normal Open)			
DP2 : PNP NC (Normal Close)			



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SHICO. INDUCTIVE SENSOR Series

MODEL : AS-10 Series

PL4 TYPE



■ Specification

Type : PL4	
Sensing range	0.1~4 mm
Electrical configuration	DC3-wire
Supply voltage Vs	DC 12~30 V
Ripple Upp	≤ 10 %
Voltage drop Ud	≤ 2 V ¹⁾
Power consumption	≤ 10 mA ²⁾
Continuous current Ia	≤ 200 mA
Maximum Current	100mA
Time delay before availability tv	≤ 100 ms
Hysteresis H, of sr	5 ~ 15 %
Repeatability R	≤ 2 % (Ub and Ta constant) ³⁾
Temperature drift, of sr	± 10 %
EMC	According to EN 60947-5-2
Switching output	PNP
Output function	Normally closed / Normally open
Installation	Non-Flush
Connection type	Connector, M12, 4-pin / Cable, PVC, 2 m
	Cable, PVC, 2 m
Enclosure rating	IP 67
Max. switching frequency	2000 Hz
Dimensions	M12 x 1
Short-circuit protection	√ ⁶⁾
Reverse polarity protection	√
Power-up pulse suppression	√
Shock/vibration stress	30 g, 11 ms /10 ... 55 Hz, 1 mm
Ambient temperature Ta	-25 ~ +75 °C
Housing material	Brass nickel-plated, plastic (PA6)
Tightening torque	Typ. 12 Nm

Reduction factor Rm

The following are reference values, which may vary from type to type:

St37 (Fe)	1
Stainless steel(V2A)	Approx. 0.8
Aluminum (solid)	Approx. 0.45
Copper (Cu)	Approx. 0.4



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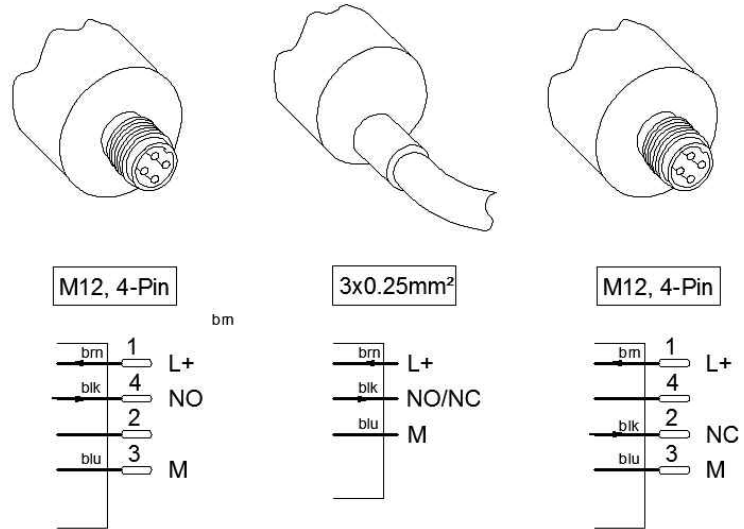
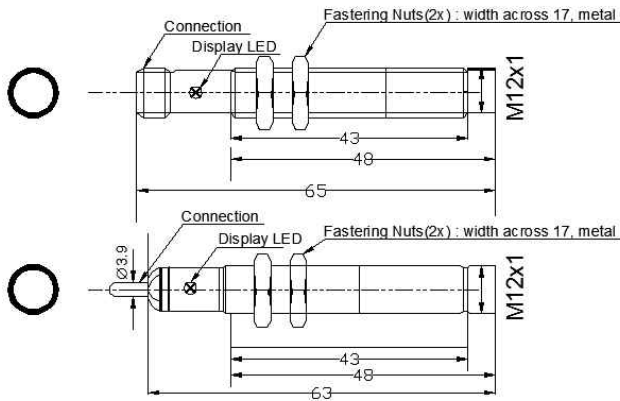
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SHICO. INDUCTIVE SENSOR Series

MODEL : AS-10 Series

PL4 TYPE

■ DIMENSIONAL DRAWING



■ MODEL INFORMATION

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	W	L : Long pipe
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	18	WL : Wiring withdrawal connector type with long pipe
		Circumference type : Diameter of active surface(mm)
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	DN	DN : NPN NO (Normal Open)
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L-13



■ Specification

Type : PL8	
Sensing range	0.1~8 mm
Electrical configuration	DC3-wire
Supply voltage Vs	DC 12~30 V
Ripple Upp	≤ 10 %
Voltage drop Ud	≤ 2 V ¹⁾
Power consumption	≤ 10 mA ²⁾
Continuous current Ia	≤ 200 mA
Maximum Current	100mA
Time delay before availability tv	≤ 100 ms
Hysteresis H, of sr	5 ~ 15 %
Repeatability R	≤ 2 % (Ub and Ta constant) ³⁾
Temperature drift, of sr	± 10 %
EMC	According to EN 60947-5-2
Switching output	PNP
Output function	Normally closed / Normally open
Installation	Non-Flush
Connection type	Connector, M12, 4-pin / Cable, PVC, 2 m Cable, PVC, 2 m
Enclosure rating	IP 67
Max. switching frequency	2000 Hz
Dimensions	M12 x 1
Short-circuit protection	√ ⁶⁾
Reverse polarity protection	√
Power-up pulse suppression	√
Shock/vibration stress	30 g, 11 ms /10 ... 55 Hz, 1 mm
Ambient temperature Ta	-25 ~ +75 °C
Housing material	Brass nickel-plated, plastic (PA6)
Tightening torque	Typ. 12 Nm

Reduction factor Rm

The following are reference values, which may vary from type to type:

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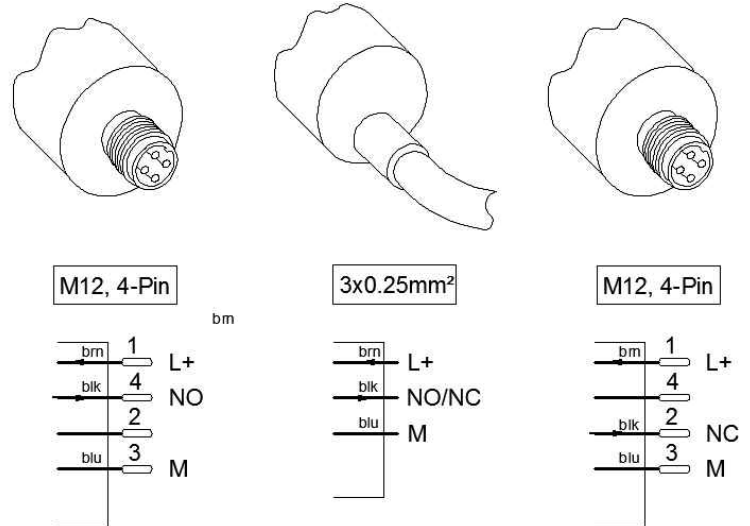
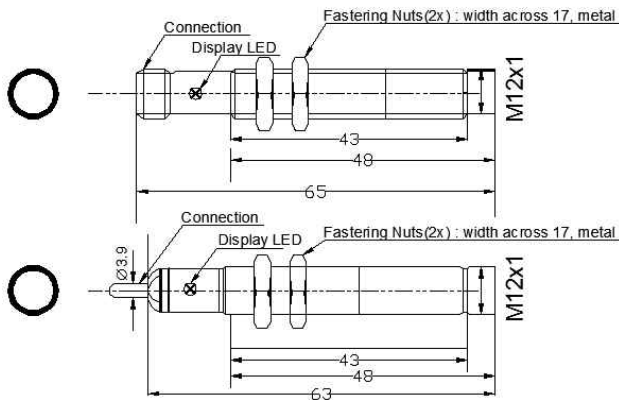


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MODEL : AS-10 Series

PL8 TYPE

■ DIMENSIONAL DRAWING



■ MODEL INFORMATION

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