



EV-108U

Main Unit, Unshielded Type, M8

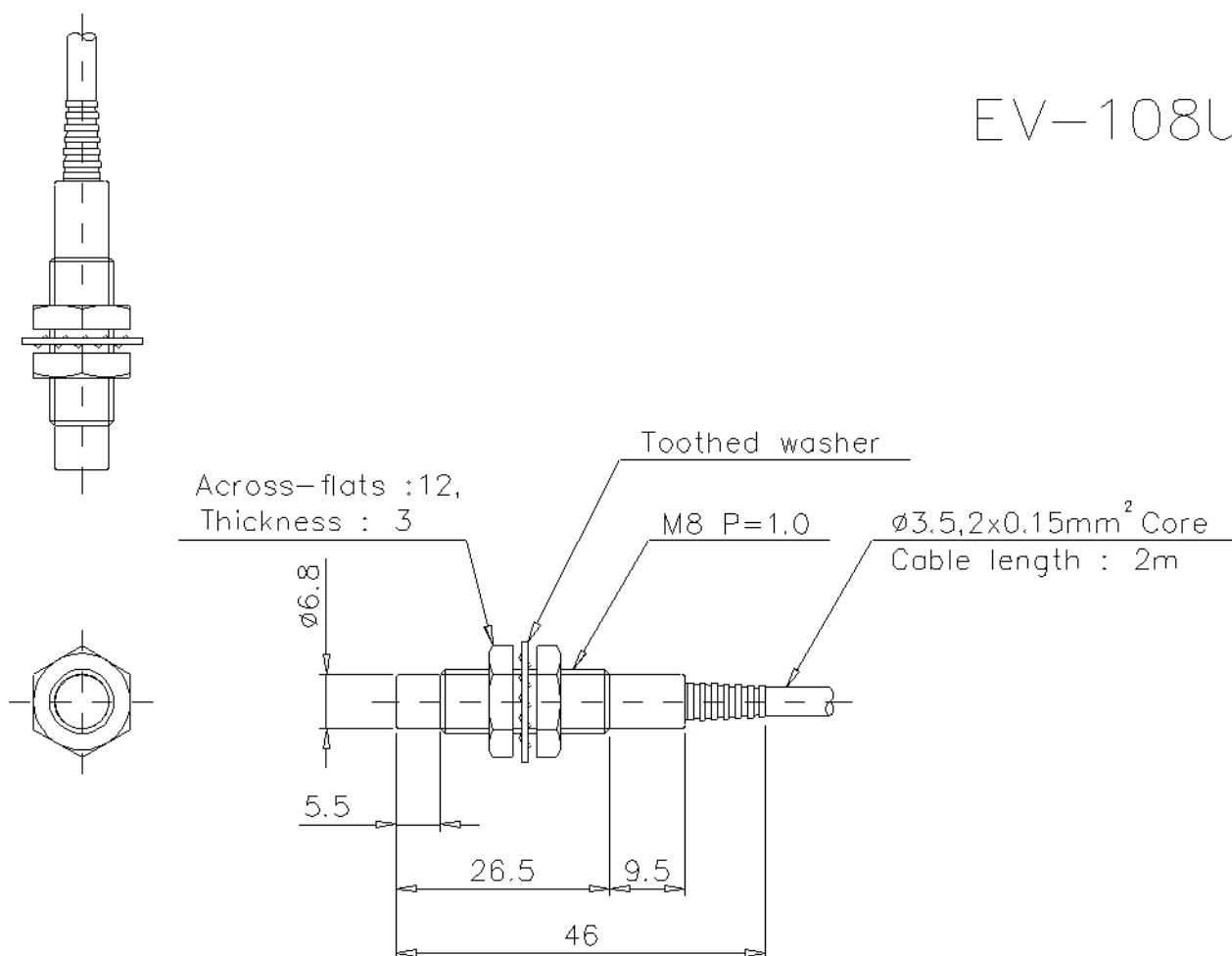
Specifications

Model	EV-108U*1	
Type	Non-shielded	
Shape	M8	
Detecting distance	4 mm 0.16" ±10%	
Detectable object	Ferrous metals (see Characteristics for nonferrous metals)	
Standard target (iron, t=1 mm 0.04")	20 x 20 mm 0.79" x 0.79"	
Hysteresis	20% max. of detecting distance, within -10 to +70°C 14 to 158°F	
Response frequency	800 Hz	
Operation mode	N.O.	
Temperature characteristics	±10% max. of detecting distance, within -10 to +70°C 14 to 158°F	
Control output (switching capacity)	5 to 80 mA	
Protection circuit	Reversed polarity, surge voltage	
Cable length	2 m 6.6'	
Rating	Power voltage	12 to 24 VDC, Ripple (P-P) 20 % or less
	Current consumption (leakage current)	Current consumption (leakage current): 1.0 mA max., Residual voltage: 3.6 V max. (with 2-m 6.6' cable)
	Residual voltage	Residual voltage: 3.6 V max. (with 2-m 6.6' cable)
Environmental resistance	Enclosure rating	IP67
	Ambient temperature	-25 to +80 °C -13 to 176 °F (No freezing)
	Relative humidity	35 to 95 % RH (No condensation)
	Vibration resistance	10 to 55 Hz, Double amplitude 1.5 mm 0.06", 2 hours in each of the X, Y, and Z directions
	Shock resistance	500 m/s ² , 3 times in each of the X, Y, and Z directions
Case material	Stainless steel (SUS304)	
Accessories	Nut × 2, toothed washer × 1, instruction manual	
Weight	Approx. 42 g	

*1 This product does not comply with EMC directive.

Dimensions

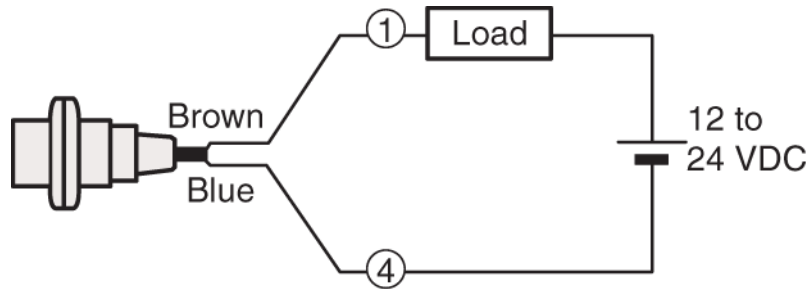
* Download CAD file or product manual for larger image/text and more detail.



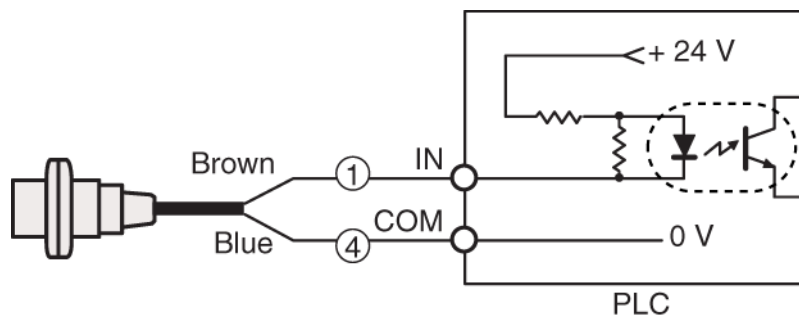
I/O Circuit Connection diagram

* Download CAD file or product manual for larger image/text and more detail.

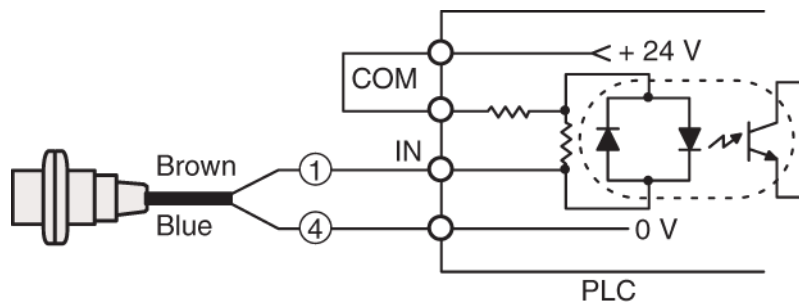
Connection to built-in DC power supply type PLC (externally connected power supply)



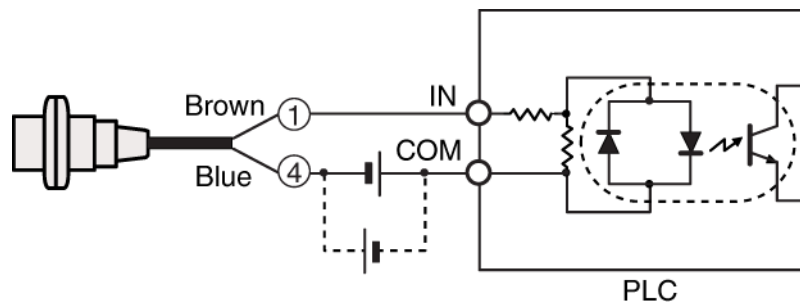
Connection to built-in DC power supply type PLC (internally connected power supply)



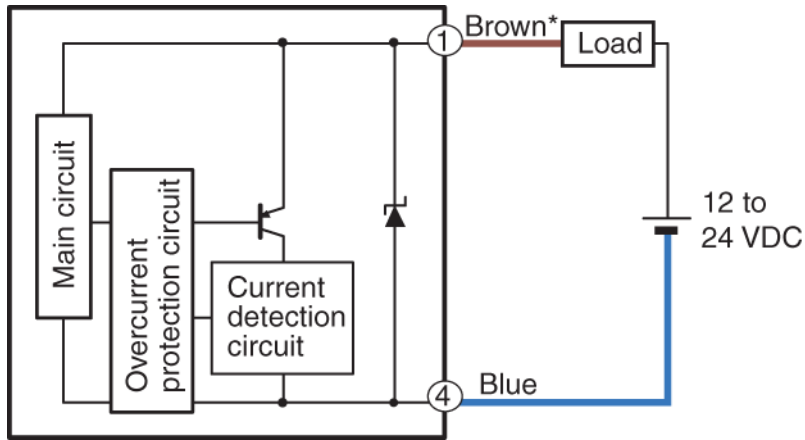
Connection to PLC having no internal DC power supply



For connections indicated by the dotted lines,
reverse brown and blue sensor wires



EV Series
DC 2-wire type

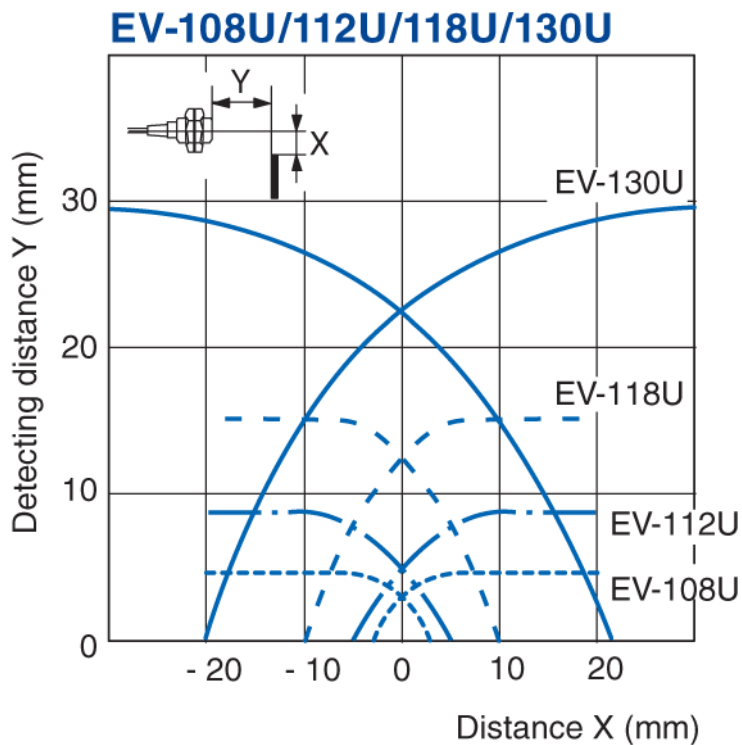


* Load can also be connected between blue wire and negative terminal of power supply. The M8 sensor does not contain short-circuit protection or a current detection circuit. 1 and 4 in the circuit diagram shows the pin number of the connector type.

Characteristic

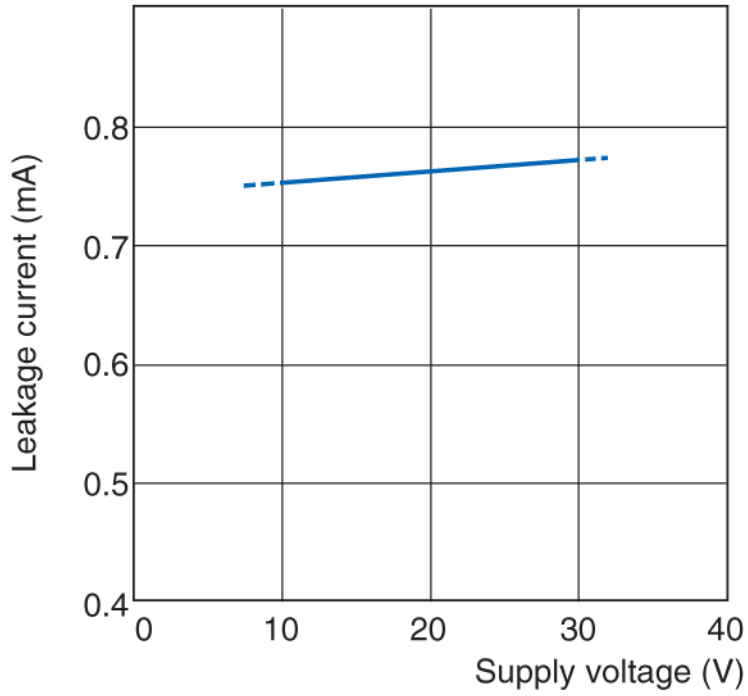
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Detecting range (Typical)
DC 2-wire type



Leakage current (Typical)

EV; DC 2-wire type



Detecting distance vs. size and material of target (Typical)
DC 2-wire type

EV-108U

