




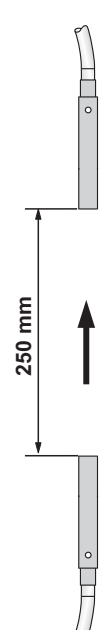




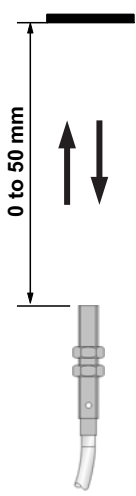




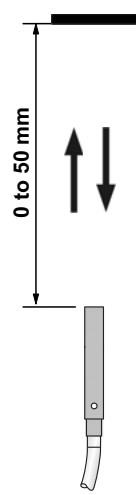






Thru-beam Mode (Stainless Steel Housing)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
M5 Series Thru-beam Mode Sensing Distance 0 to 250mm Infrared 880nm 	2m Cable 	10 -30V DC	Emitter	<u>M5S-T0250D-EX9C2L2</u>
			NPN Light-ON	<u>M5S-T0250N-LX9C3U2</u>
			NPN Dark-ON	<u>M5S-T0250N-DX9C3U2</u>
			PNP Light-ON	<u>M5S-T0250P-LX9C3U2</u>
			PNP Dark-ON	<u>M5S-T0250P-DX9C3U2</u>
	M5 connector 	10 -30V DC	Emitter	<u>M5S-T0250D-EX9Q3LW</u>
			NPN Light-ON	<u>M5S-T0250N-LX9Q3UW</u>
			NPN Dark-ON	<u>M5S-T0250N-DX9Q3UW</u>
			PNP Light-ON	<u>M5S-T0250P-LX9Q3UW</u>
			PNP Dark-ON	<u>M5S-T0250P-DX9Q3UW</u>
	M5 connector (Snap in Style) 	10 -30V DC	Emitter	<u>M5S-T0250D-EX9Q3LW/SN</u>
			NPN Light-ON	<u>M5S-T0250N-LX9Q3UW/SN</u>
			NPN Dark-ON	<u>M5S-T0250N-DX9Q3UW/SN</u>
			PNP Light-ON	<u>M5S-T0250P-LX9Q3UW/SN</u>
			PNP Dark-ON	<u>M5S-T0250P-DX9Q3UW/SN</u>
	M8 connector 	10 -30V DC	Emitter	<u>M5S-T0250D-EX9Q3LP</u>
NPN Light-ON			<u>M5S-T0250N-LX9Q3UP</u>	
NPN Dark-ON			<u>M5S-T0250N-DX9Q3UP</u>	
PNP Light-ON			<u>M5S-T0250P-LX9Q3UP</u>	
PNP Dark-ON			<u>M5S-T0250P-DX9Q3UP</u>	
$\phi 4$ Series Thru-beam Mode Sensing Distance 0 to 250mm Infrared 880nm 	2m Cable 	10 -30V DC	Emitter	<u>D4S-T0250D-EX9C2L2</u>
			NPN Light-ON	<u>D4S-T0250N-LX9C3U2</u>
			NPN Dark-ON	<u>D4S-T0250N-DX9C3U2</u>
			PNP Light-ON	<u>D4S-T0250P-LX9C3U2</u>
			PNP Dark-ON	<u>D4S-T0250P-DX9C3U2</u>
	M5 connector 	10 -30V DC	Emitter	<u>D4S-T0250D-EX9Q3LW</u>
			NPN Light-ON	<u>D4S-T0250N-LX9Q3UW</u>
			NPN Dark-ON	<u>D4S-T0250N-DX9Q3UW</u>
			PNP Light-ON	<u>D4S-T0250P-LX9Q3UW</u>
			PNP Dark-ON	<u>D4S-T0250P-DX9Q3UW</u>
	M5 connector (Snap in Style) 	10 -30V DC	Emitter	<u>D4S-T0250D-EX9Q3LW/SN</u>
			NPN Light-ON	<u>D4S-T0250N-LX9Q3UW/SN</u>
			NPN Dark-ON	<u>D4S-T0250N-DX9Q3UW/SN</u>
			PNP Light-ON	<u>D4S-T0250P-LX9Q3UW/SN</u>
			PNP Dark-ON	<u>D4S-T0250P-DX9Q3UW/SN</u>
	M8 connector 	10 -30V DC	Emitter	<u>D4S-T0250D-EX9Q3LP</u>
NPN Light-ON			<u>D4S-T0250N-LX9Q3UP</u>	
NPN Dark-ON			<u>D4S-T0250N-DX9Q3UP</u>	
PNP Light-ON			<u>D4S-T0250P-LX9Q3UP</u>	
PNP Dark-ON			<u>D4S-T0250P-DX9Q3UP</u>	

Note:
 Coming Soon : Part numbers with underline
 In Preparation: Part numbers with a line through the middle

Diffuse Mode (Stainless Steel Housing)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
M5 Sensor Diffuse Mode Sensing Distance 0 to 50mm Infrared 880nm 	2m Cable 	10 -30V DC	NPN Light-ON	<u>M5S-D0050N-LX9G3U2</u>
			NPN Dark-ON	<u>M5S-D0050N-DX9G3U2</u>
			PNP Light-ON	<u>M5S-D0050P-LX9G3U2</u>
			PNP Dark-ON	<u>M5S-D0050P-DX9G3U2</u>
	M5 connector 	10 -30V DC	NPN Light-ON	<u>M5S-D0050N-LX9Q3UW</u>
			NPN Dark-ON	<u>M5S-D0050N-DX9Q3UW</u>
			PNP Light-ON	<u>M5S-D0050P-LX9Q3UW</u>
			PNP Dark-ON	<u>M5S-D0050P-DX9Q3UW</u>
	M5 connector (Snap in Style) 	10 -30V DC	NPN Light-ON	<u>M5S-D0050N-LX9Q3UW/SN</u>
			NPN Dark-ON	<u>M5S-D0050N-DX9Q3UW/SN</u>
			PNP Light-ON	<u>M5S-D0050P-LX9Q3UW/SN</u>
			PNP Dark-ON	<u>M5S-D0050P-DX9Q3UW/SN</u>
	M8 connector 	10 -30V DC	NPN Light-ON	<u>M5S-D0050N-LX9Q3UP</u>
			NPN Dark-ON	<u>M5S-D0050N-DX9Q3UP</u>
			PNP Light-ON	<u>M5S-D0050P-LX9Q3UP</u>
			PNP Dark-ON	<u>M5S-D0050P-DX9Q3UP</u>
$\phi 4$ Sensor Diffuse Mode Sensing Distance 0 to 50mm Infrared 880nm 	2m Cable 	10 -30V DC	NPN Light-ON	<u>D4S-D0050N-LX9G3U2</u>
			NPN Dark-ON	<u>D4S-D0050N-DX9G3U2</u>
			PNP Light-ON	<u>D4S-D0050P-LX9G3U2</u>
			PNP Dark-ON	<u>D4S-D0050P-DX9G3U2</u>
	M5 connector 	10 -30V DC	NPN Light-ON	<u>D4S-D0050N-LX9Q3UW</u>
			NPN Dark-ON	<u>D4S-D0050N-DX9Q3UW</u>
			PNP Light-ON	<u>D4S-D0050P-LX9Q3UW</u>
			PNP Dark-ON	<u>D4S-D0050P-DX9Q3UW</u>
	M5 connector (Snap in Style) 	10 -30V DC	NPN Light-ON	<u>D4S-D0050N-LX9Q3UW/SN</u>
			NPN Dark-ON	<u>D4S-D0050N-DX9Q3UW/SN</u>
			PNP Light-ON	<u>D4S-D0050P-LX9Q3UW/SN</u>
			PNP Dark-ON	<u>D4S-D0050P-DX9Q3UW/SN</u>
	M8 connector 	10 -30V DC	NPN Light-ON	<u>D4S-D0050N-LX9Q3UP</u>
			NPN Dark-ON	<u>D4S-D0050N-DX9Q3UP</u>
			PNP Light-ON	<u>D4S-D0050P-LX9Q3UP</u>
			PNP Dark-ON	<u>D4S-D0050P-DX9Q3UP</u>

Note:

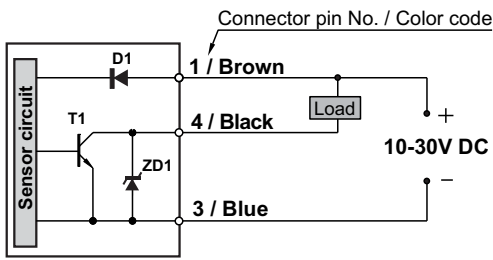
Coming Soon : Part numbers with underline
 In Preparation: Part numbers with a line through the middle

Specifications

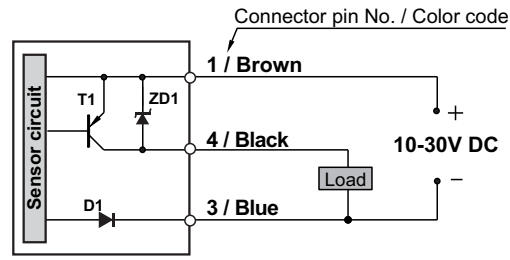
Sensing Mode Item	Thru-beam Mode	Diffuse Mode
Sensing distance	250 mm	50 mm
Detectable target	————	Standard white: 100mm x 100mm
Light source	Infrared LED 880nm	
Function display	Output : Yellow LED (The LED lights up when the output is switched. The LED flashes if the receiver does not receive enough light for reliable operation)	
Supply Voltage	10 to 30V DC	
Ripple	≤20 %	
No-load current	≤15 mA	
Time delay before Availability	≤ 20 ms	
Response time	≤ 2.5 ms	
Switching frequency	≤ 250 Hz	
Hysteresis	10% or less of sensing distance	
Output current	Max. 100mA	
Output voltage drop	Max. 2.0 V at 100 mA	
Output operation	Light-ON or Dark-ON	
Overload protection	Yes	
Short-circuit protection	Yes	
Standard conformity	EN 60947-5-2	
Degree of protection	IP 67	
Ambient temperature	0 to +55°C	
Extraneous light	Halogen light: 5,000ℓ; Sunlight: 10,000ℓ .	
Housing material	Stainless Steel	
Optical face	Scratch resistant mineral glass lens	
Connection type	Cable type: 2m PVC cable, 3 x 0.14 mm ² Connector type: M5x 0.5 3pin connector, M5 snap in 3pin connector, M8(pico-style) 3pin connector	
Weight	Cable type: 66g approx. (emitter & receiver), Connector type: 6g approx. (emitter & receiver)	Cable type: 35g approx. Connector type: 3g approx.

Connection Diagrams & Response Curve

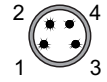
NPN output type



PNP output type

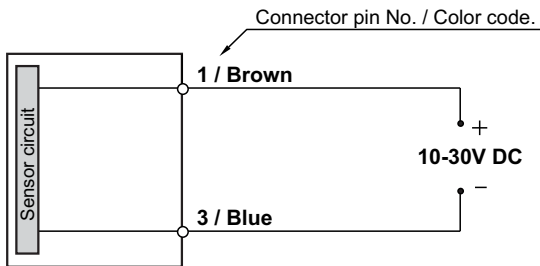


Connector face view Pico-Style

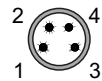


- 1. Brown (+)
- 2. Not used
- 3. Blue (-)
- 4. Black (Output A)

Emitter of Thru-beam Mode

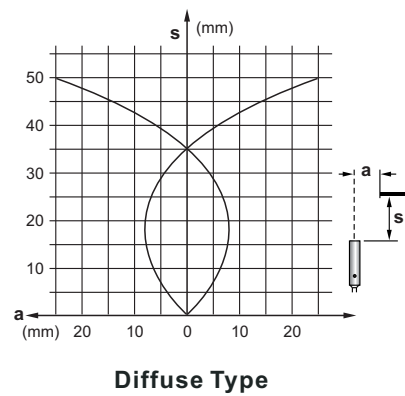
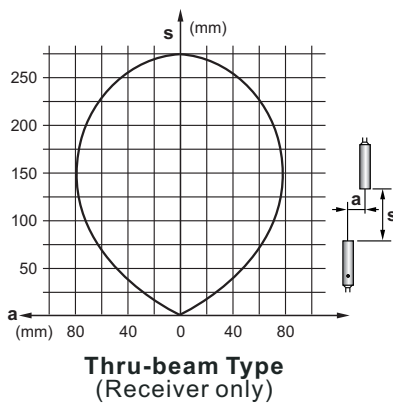


Connector face view Pico-Style



- 1. Brown (+)
- 2. Not used
- 3. Blue (-)
- 4. Not used

Response Curve

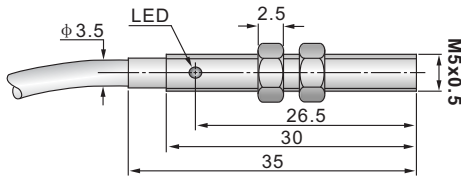


M5 & $\phi 4$ SERIES

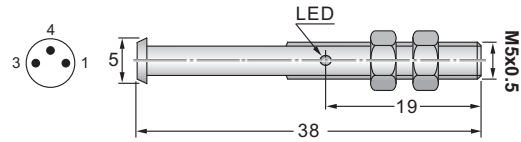
Dimensions (Unit: mm)

M5 Series

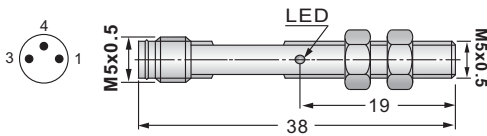
Cable type



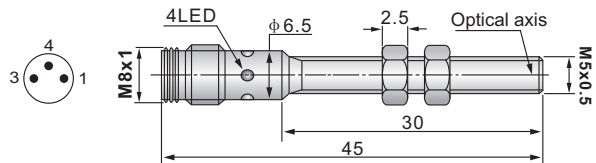
M5 snap-in connector type



M5 connector type

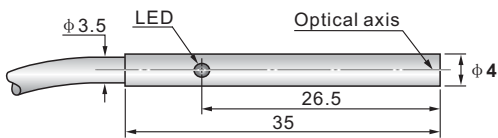


M8 connector type

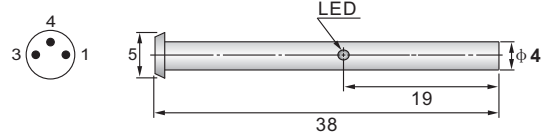


$\phi 4$ Series

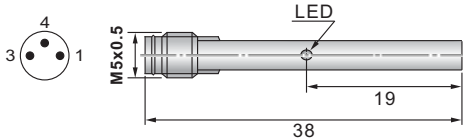
Cable type



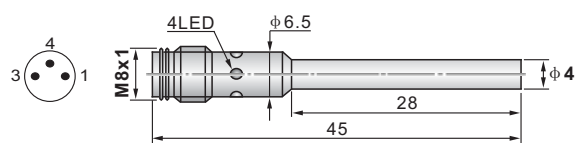
M5 snap-in connector type



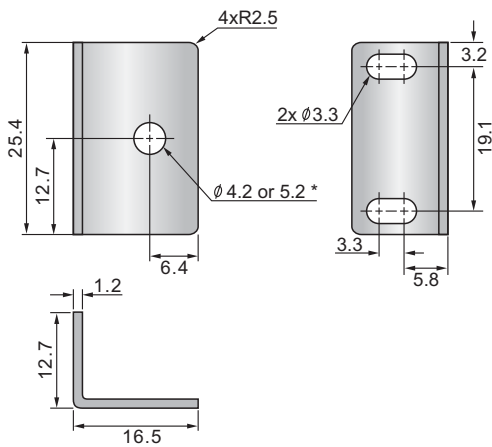
M5 connector type



M8 connector type



MB-2516 (Mounting bracket-optional)



*: 4.2 for D4 Series, 5.2 or M5 Series.