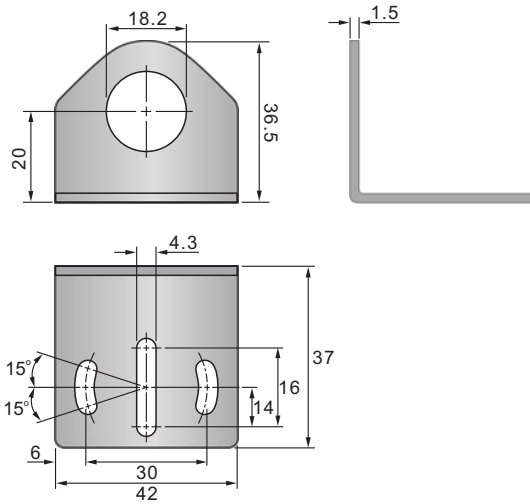
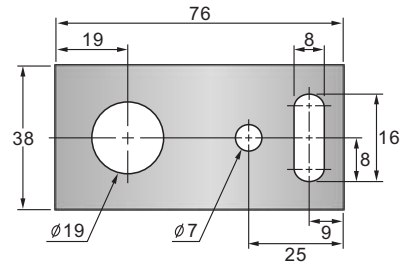


Mounting Bracket's* Dimensions (Unit: mm)

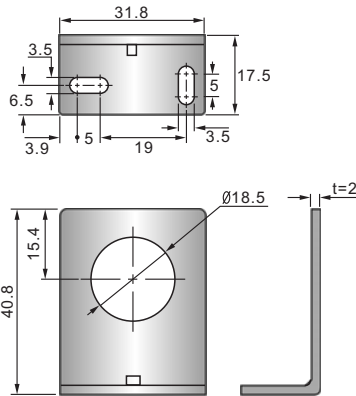
MB-4237 (optional)



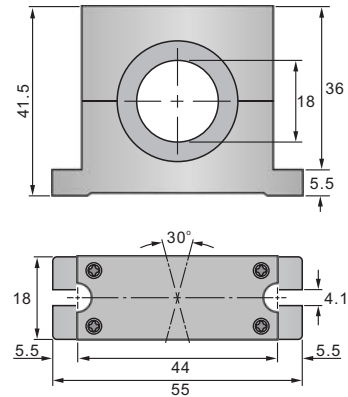
MB-7638 (optional)



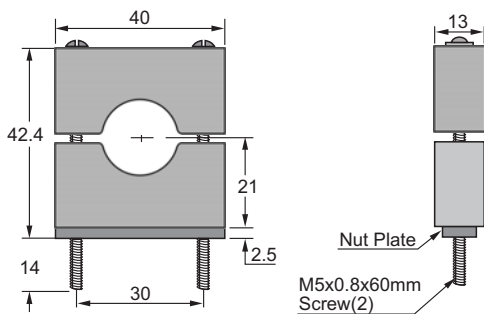
MB-4032 (optional)



MB-5542 (optional)

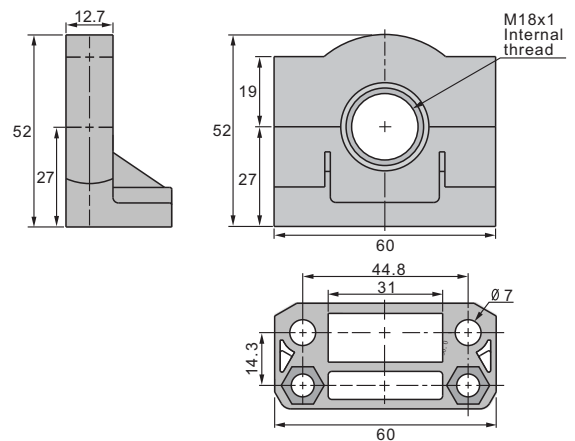


MB-4240 (optional)



18mm split clamp bracket
Black reinforced thermoplastic polyester

MB-6052 (optional)

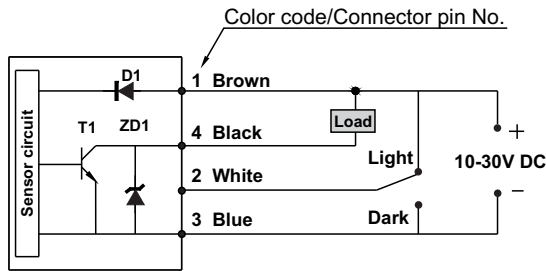


Mounting Bracket to Provide 360° Rotation

*: Please see **Accessories** (Universal Mounting Brackets Series).

Circuit Diagrams (DC)

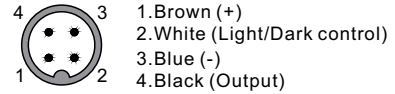
NPN output type



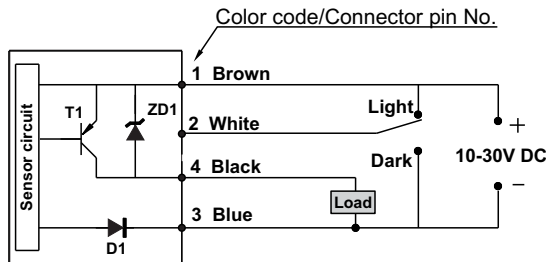
Symbol D1: Reverse polarity protection diode
ZD1: Surge absorption zener diode
T1: NPN output transistor

Connector pin position

Euro-style



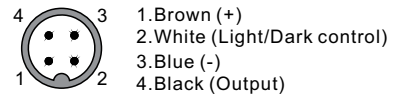
PNP output type



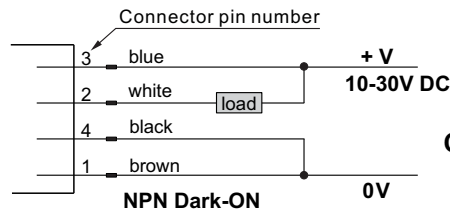
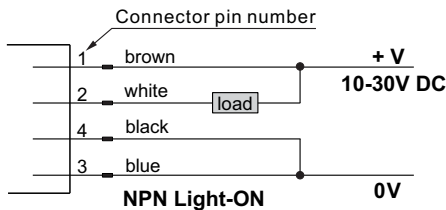
Symbol D1: Reverse polarity protection diode
ZD1: Surge absorption zener diode
T1: PNP output transistor

Connector pin position

Euro-style

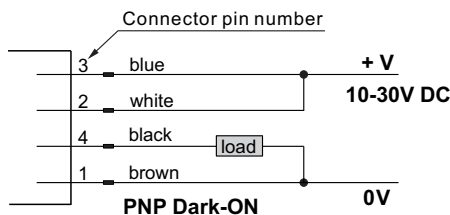
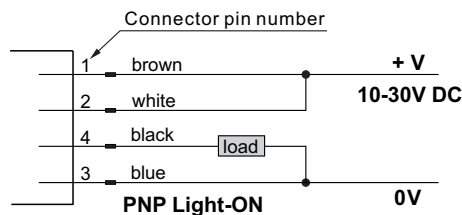
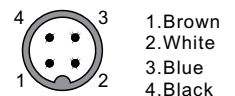


NPN/PNP output type

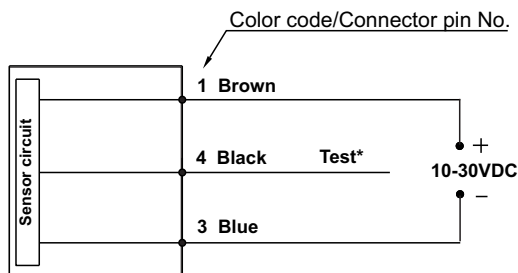


Connector pin position

Euro-style



Emitter of Thru-beam Mode



*: Test (black wire) = 0V, Emitter Off.

Connector pin position

Euro-style

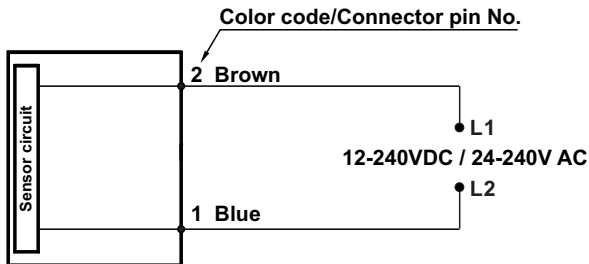


D: M18 SERIES

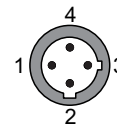
Circuit Diagrams (AC/DC) & Sensing Characteristics

Emitter of Thru-beam Mode

I/O circuit diagram



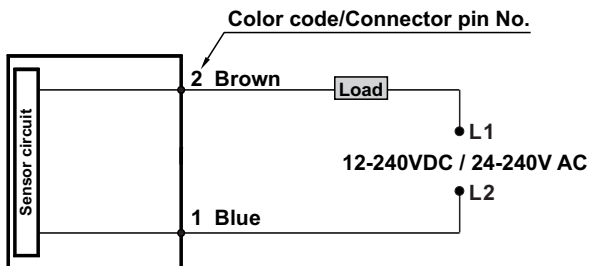
Connector pin position (Micro-style)



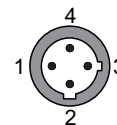
- 1. Blue(L2)
- 2. Brown (L1)
- 3. Black (Not used)
- 4. White (Not used)

Receiver of thru-beam mode, retroreflective & diffuse reflective sensor

I/O circuit diagram

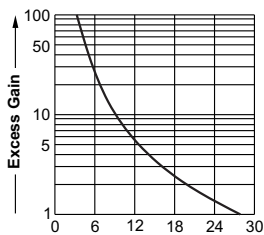


Connector pin position (Micro-style)

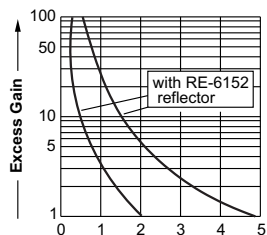


- 1. Blue(L2)
- 2. Brown (L1)
- 3. Black (Not used)
- 4. White (Not used)

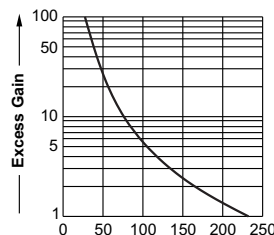
Sensing Characteristics (Typical)



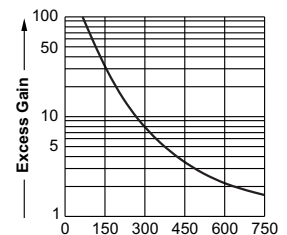
Thru-beam Mode



Retro-reflective Mode



Diffuse Mode
(Sn=150mm)

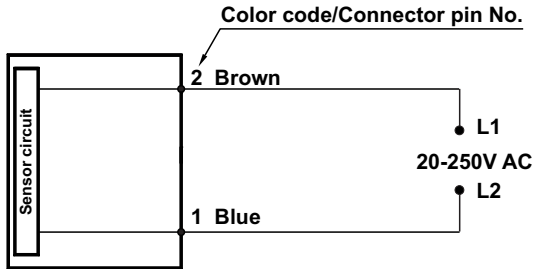


Diffuse Mode
(Sn=500mm)

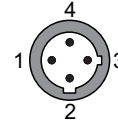
Circuit Diagrams (AC)

Emitter of Thru-beam Mode

I/O circuit diagram



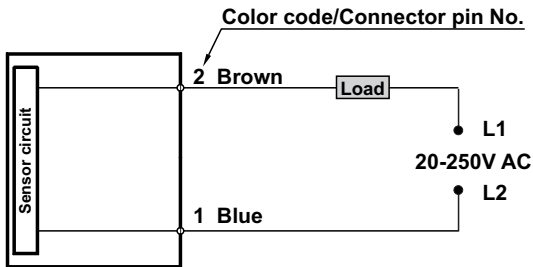
Connector pin position (Micro-style)



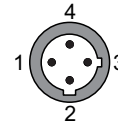
- 1. Blue(L2)
- 2. Brown (L1)
- 3. Black (Not used)
- 4. White (Not used)

Receiver of thru-beam mode, retroreflective & diffuse reflective sensor (2-wire)

I/O circuit diagram



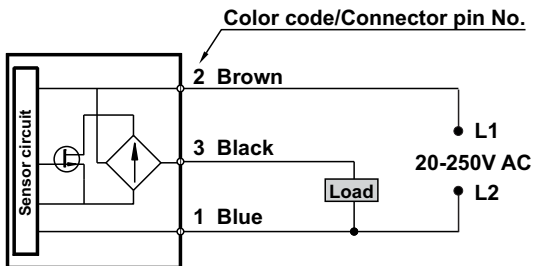
Connector pin position (Micro-style)



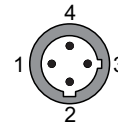
- 1. Blue(L2)
- 2. Brown (L1)
- 3. Black (Not used)
- 4. White (Not used)

Receiver of thru-beam mode, retroreflective & diffuse reflective sensor (3-wire)

I/O circuit diagram



Connector pin position (Micro-style)







- 1. Blue(L2)
- 2. Brown (L1)
- 3. Black (Output)
- 4. White (Not used)





D : M18 SERIES

Long Range Diffuse Mode (Plastic Housing, Standard shape)

D: M18 SERIES








Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p>Infrared LED</p>  <p>500mm</p> <p>Diffuse Mode</p> <p>Sensing Distance: 500mm</p>	<p>2m Cable</p> 	10-30V DC	NPN L.O./D.O.	M18P-D0500N-CX9C4U2
			PNP L.O./D.O.	M18P-D0500P-CX9C4U2
			NPN/PNP L.O./D.O.	
		20-250V AC	Light-ON (2-wire)	
			Dark-ON (2-wire)	
			Light-ON (3-wire)	M18P-D0500A-LX9C3U2
		Dark-ON (3-wire)	M18P-D0500A-DX9C3U2	
		12-240V DC/ 24-240V AC	Light-ON (2-wire)	
			Dark-ON (2-wire)	
	<p>Quick Disconnect</p> 	10-30V DC (Euro-style)	NPN L.O./D.O.	M18P-D0500N-CX9Q4UE
			PNP L.O./D.O.	M18P-D0500P-CX9Q4UE
			NPN/PNP L.O./D.O.	
		20-250V AC (Micro-style)	Light-ON (2-wire)	
			Dark-ON (2-wire)	
			Light-ON (3-wire)	M18P-D0500A-LX9Q4UM
		Dark-ON (3-wire)	M18P-D0500A-DX9Q4UM	
		12-240V DC/ 24-240V AC (Micro-style)	Light-ON (2-wire)	
			Dark-ON (2-wire)	
<p>6" Pig tail</p> 	10-30V DC (Euro-style)	NPN L.O./D.O.	M18P-D0500N-CX9P4UE	
		PNP L.O./D.O.	M18P-D0500P-CX9P4UE	
		NPN/PNP L.O./D.O.		
	20-250V AC (Micro-style)	Light-ON (2-wire)		
		Dark-ON (2-wire)		
		Light-ON (3-wire)	M18P-D0500A-LX9P4UM	
	Dark-ON (3-wire)	M18P-D0500A-DX9P4UM		
	12-240V DC/ 24-240V AC (Micro-style)	Light-ON (2-wire)		
		Dark-ON (2-wire)		

Standard Diffuse Mode (Brass Housing, Y shape)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p style="text-align: center;">Infrared LED</p>  <p style="text-align: center;">150 mm</p> <p style="text-align: center;">Diffuse Mode Sensing Distance: 150 mm</p>	<p>2m Cable</p> 	10-30V DC	NPN L.O./D.O.	M18B-D0150N-CY9C4U2
			PNP L.O./D.O.	M18B-D0150P-CY9C4U2
			NPN/PNP L.O./D.O.	
		20-250V AC	Light-ON (2-wire)	
			Dark-ON (2-wire)	
			Light-ON (3-wire)	
		12-240V DC/ 24-240V AC	Dark-ON (3-wire)	
			Light-ON (2-wire)	
		Dark-ON (2-wire)		
	<p>Quick Disconnect</p> 	10-30V DC (Euro-style)	NPN L.O./D.O.	M18B-D0150N-CY9Q4UE
			PNP L.O./D.O.	M18B-D0150P-CY9Q4UE
			NPN/PNP L.O./D.O.	
		20-250V AC (Micro-style)	Light-ON (2-wire)	
			Dark-ON (2-wire)	
			Light-ON (3-wire)	
		12-240V DC/ 24-240V AC (Micro-style)	Dark-ON (3-wire)	
			Light-ON (2-wire)	
Dark-ON (2-wire)				
<p>6" Pig tail</p> 	10-30V DC (Euro-style)	NPN L.O./D.O.	M18B-D0150N-CY9P4UE	
		PNP L.O./D.O.	M18B-D0150P-CY9P4UE	
		NPN/PNP L.O./D.O.		
	20-250V AC (Micro-style)	Light-ON (2-wire)		
		Dark-ON (2-wire)		
		Light-ON (3-wire)		
	12-240V DC/ 24-240V AC (Micro-style)	Dark-ON (3-wire)		
		Light-ON (2-wire)		
	Dark-ON (2-wire)			





D: M18 SERIES

Standard Diffuse Mode (Brass Housing, Standard shape)




Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
Infrared LED  Diffuse Mode Sensing Distance: 150 mm	2m Cable  	10-30V DC	NPN L.O./D.O.	M18B-D0150N-CX9C4U2
			PNP L.O./D.O.	M18B-D0150P-CX9C4U2
			NPN/PNP L.O./D.O.	
		20-250V AC	Light-ON (2-wire)	
			Dark-ON (2-wire)	
			Light-ON (3-wire)	M18B-D0150A-LX9C3U2
		12-240V DC/ 24-240V AC	Dark-ON (3-wire)	M18B-D0150A-DX9C3U2
			Light-ON (2-wire)	
			Dark-ON (2-wire)	
	Quick Disconnect  	10-30V DC (Euro-style)	NPN L.O./D.O.	M18B-D0150N-CX9Q4UE
			PNP L.O./D.O.	M18B-D0150P-CX9Q4UE
			NPN/PNP L.O./D.O.	
		20-250V AC (Micro-style)	Light-ON (2-wire)	
			Dark-ON (2-wire)	
			Light-ON (3-wire)	M18B-D0150A-LX9Q4UM
		12-240V DC/ 24-240V AC (Micro-style)	Dark-ON (3-wire)	M18B-D0150A-DX9Q4UM
			Light-ON (2-wire)	
			Dark-ON (2-wire)	
6" Pig tail  	10-30V DC (Euro-style)	NPN L.O./D.O.	M18B-D0150N-CX9P4UE	
		PNP L.O./D.O.	M18B-D0150P-CX9P4UE	
		NPN/PNP L.O./D.O.		
	20-250V AC (Micro-style)	Light-ON (2-wire)		
		Dark-ON (2-wire)		
		Light-ON (3-wire)	M18B-D0150A-LX9P4UM	
	12-240V DC/ 24-240V AC (Micro-style)	Dark-ON (3-wire)	M18B-D0150A-DX9P4UM	
		Light-ON (2-wire)		
		Dark-ON (2-wire)		

D : M18 SERIES





Standard Diffuse Mode (Plastic Housing, Standard shape)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p>Infrared LED</p>  <p>150 mm</p> <p>Diffuse Mode</p> <p>Sensing Distance: 150mm</p>	<p>2m Cable</p> 	<p>10-30V DC</p>	NPN L.O./D.O.	M18P-D0150N-CX9C4U2
			PNP L.O./D.O.	M18P-D0150P-CX9C4U2
			NPN/PNP L.O./D.O.	
		<p>20-250V AC</p>	Light-ON (2-wire)	
			Dark-ON (2-wire)	
			Light-ON (3-wire)	M18P-D0150A-LX9C3U2
		Dark-ON (3-wire)	M18P-D0150A-DX9C3U2	
		<p>12-240V DC/ 24-240V AC</p>	Light-ON (2-wire)	
			Dark-ON (2-wire)	
	<p>Quick Disconnect</p> 	<p>10-30V DC (Euro-style)</p>	NPN L.O./D.O.	M18P-D0150N-CX9Q4UE
			PNP L.O./D.O.	M18P-D0150P-CX9Q4UE
			NPN/PNP L.O./D.O.	
		<p>20-250V AC (Micro-style)</p>	Light-ON (2-wire)	
			Dark-ON (2-wire)	
			Light-ON (3-wire)	M18P-D0150A-LX9Q4UM
		Dark-ON (3-wire)	M18P-D0150A-DX9Q4UM	
		<p>12-240V DC/ 24-240V AC (Micro-style)</p>	Light-ON (2-wire)	
			Dark-ON (2-wire)	
<p>6" Pig tail</p> 	<p>10-30V DC (Euro-style)</p>	NPN L.O./D.O.	M18P-D0150N-CX9P4UE	
		PNP L.O./D.O.	M18P-D0150P-CX9P4UE	
		NPN/PNP L.O./D.O.		
	<p>20-250V AC (Micro-style)</p>	Light-ON (2-wire)		
		Dark-ON (2-wire)		
		Light-ON (3-wire)	M18P-D0150A-LX9P4UM	
	Dark-ON (3-wire)	M18P-D0150A-DX9P4UM		
	<p>12-240V DC/ 24-240V AC (Micro-style)</p>	Light-ON (2-wire)		
		Dark-ON (2-wire)		

Long Range Diffuse Mode (Brass Housing, Z shape)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number		
Infrared LED		10-30V DC	NPN L.O./D.O.	M18B-D0150N-CZ9C4U2		
			PNP L.O./D.O.	M18B-D0150P-CZ9C4U2		
			NPN/PNP L.O./D.O.			
		20-250V AC	Light-ON (2-wire)			
			Dark-ON (2-wire)			
			Light-ON (3-wire)			
			Dark-ON (3-wire)			
		12-240V DC/ 24-240V AC	Light-ON (2-wire)			
			Dark-ON (2-wire)			
		Quick Disconnect		10-30V DC (Euro-style)	NPN L.O./D.O.	M18B-D0150N-CZ9Q4UE
					PNP L.O./D.O.	M18B-D0150P-CZ9Q4UE
					NPN/PNP L.O./D.O.	
20-250V AC (Micro-style)	Light-ON (2-wire)					
	Dark-ON (2-wire)					
	Light-ON (3-wire)					
	Dark-ON (3-wire)					
12-240V DC/ 24-240V AC (Micro-style)	Light-ON (2-wire)					
	Dark-ON (2-wire)					
Diffuse Mode Sensing Distance: 150mm				10-30V DC (Euro-style)	NPN L.O./D.O.	M18B-D0150N-CZ9P4UE
					PNP L.O./D.O.	M18B-D0150P-CZ9P4UE
					NPN/PNP L.O./D.O.	
		20-250V AC (Micro-style)	Light-ON (2-wire)			
			Dark-ON (2-wire)			
			Light-ON (3-wire)			
			Dark-ON (3-wire)			
		12-240V DC/ 24-240V AC (Micro-style)	Light-ON (2-wire)			
			Dark-ON (2-wire)			





Long Range Diffuse Mode (Brass Housing, Standard shape)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number	
Infrared LED  Diffuse Mode Sensing Distance: 500mm	2m Cable   	10-30V DC CE	NPN L.O./D.O.	M18B-D0500N-CX9C4U2	
			PNP L.O./D.O.	M18B-D0500P-CX9C4U2	
			NPN/PNP L.O./D.O.		
		20-250V AC	Light-ON (2-wire)		
			Dark-ON (2-wire)		
			Light-ON (3-wire)	M18B-D0500A-LX9C3U2	
			Dark-ON (3-wire)	M18B-D0500A-DX9C3U2	
		12-240V DC/ 24-240V AC	Light-ON (2-wire)		
			Dark-ON (2-wire)		
		Quick Disconnect CE	10-30V DC (Euro-style)	NPN L.O./D.O.	M18B-D0500N-CX9Q4UE
				PNP L.O./D.O.	M18B-D0500P-CX9Q4UE
				NPN/PNP L.O./D.O.	
20-250V AC (Micro-style)	Light-ON (2-wire)				
	Dark-ON (2-wire)				
	Light-ON (3-wire)		M18B-D0500A-LX9Q4UM		
12-240V DC/ 24-240V AC (Micro-style)	Dark-ON (3-wire)		M18B-D0500A-DX9Q4UM		
	Light-ON (2-wire)				
	Dark-ON (2-wire)				
6" Pig tail CE	10-30V DC (Euro-style)	NPN L.O./D.O.	M18B-D0500N-CX9P4UE		
		PNP L.O./D.O.	M18B-D0500P-CX9P4UE		
		NPN/PNP L.O./D.O.			
	20-250V AC (Micro-style)	Light-ON (2-wire)			
		Dark-ON (2-wire)			
		Light-ON (3-wire)	M18B-D0500A-LX9P4UM		
	12-240V DC/ 24-240V AC (Micro-style)	Dark-ON (3-wire)	M18B-D0500A-DX9P4UM		
		Light-ON (2-wire)			
		Dark-ON (2-wire)			

D : M18 SERIES

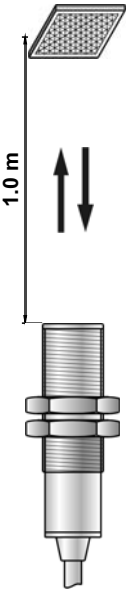



Retroreflective Mode (Plastic Housing, Standard shape)

D: M18 SERIES

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p>Infrared LED</p>  <p>3.0m</p> <p>Retro-reflective Mode Sensing Distance: 3m (Note)</p>	<p>2m Cable</p> 	10-30V DC	NPN L.O./D.O.	M18P-L3000N-CX9C4U2
			PNP L.O./D.O.	M18P-L3000P-CX9C4U2
			NPN/PNP L.O./D.O.	
		20-250V AC	Light-ON (2-wire)	
			Dark-ON (2-wire)	
			Light-ON (3-wire)	M18P-L3000A-LX9C3U2
		Dark-ON (3-wire)	M18P-L3000A-DX9C3U2	
		12-240V DC/ 24-240V AC	Light-ON (2-wire)	
			Dark-ON (2-wire)	
	<p>Quick Disconnect</p> 	10-30V DC (Euro-style)	NPN L.O./D.O.	M18P-L3000N-CX9Q4UE
			PNP L.O./D.O.	M18P-L3000P-CX9Q4UE
			NPN/PNP L.O./D.O.	
		20-250V AC (Micro-style)	Light-ON (2-wire)	
			Dark-ON (2-wire)	
			Light-ON (3-wire)	M18P-L3000A-LX9Q4UM
		Dark-ON (3-wire)	M18P-L3000A-DX9Q4UM	
		12-240V DC/ 24-240V AC (Micro-style)	Light-ON (2-wire)	
			Dark-ON (2-wire)	
<p>6" Pig tail</p> 	10-30V DC (Euro-style)	NPN L.O./D.O.	M18P-L3000N-CX9P4UE	
		PNP L.O./D.O.	M18P-L3000P-CX9P4UE	
		NPN/PNP L.O./D.O.		
	20-250V AC (Micro-style)	Light-ON (2-wire)		
		Dark-ON (2-wire)		
		Light-ON (3-wire)	M18P-L3000A-LX9P4UM	
	Dark-ON (3-wire)	M18P-L3000A-DX9P4UM		
	12-240V DC/ 24-240V AC (Micro-style)	Light-ON (2-wire)		
		Dark-ON (2-wire)		

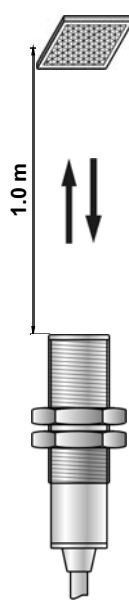



Note: Used with RE-6152 (supplied with sensor) reflector.

Retroreflective Mode with Polarizing Filter (Brass Housing, Y shape)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p>Red Light LED</p>  <p>1.0 m</p> <p>Retro-reflective Mode with Polarizing Filter Sensing Distance: 1m (Note)</p>	<p>2m Cable</p> 	<p>10-30V DC</p>	NPN L.O./D.O.	M18B-L1000N-CY6C4U2-PF
			PNP L.O./D.O.	M18B-L1000P-CY6C4U2-PF
			NPN/PNP L.O./D.O.	
		<p>20-250V AC</p>	Light-ON (2-wire)	
			Dark-ON (2-wire)	
			Light-ON (3-wire)	
			Dark-ON (3-wire)	
		<p>12-240V DC/ 24-240V AC</p>	Light-ON (2-wire)	
			Dark-ON (2-wire)	
	<p>Quick Disconnect</p> 	<p>10-30V DC (Euro-style)</p>	NPN L.O./D.O.	M18B-L1000N-CY6Q4UE-PF
			PNP L.O./D.O.	M18B-L1000P-CY6Q4UE-PF
			NPN/PNP L.O./D.O.	
		<p>20-250V AC (Micro-style)</p>	Light-ON (2-wire)	
			Dark-ON (2-wire)	
			Light-ON (3-wire)	
			Dark-ON (3-wire)	
		<p>12-240V DC/ 24-240V AC (Micro-style)</p>	Light-ON (2-wire)	
			Dark-ON (2-wire)	
<p>6" Pig tail</p> 	<p>10-30V DC (Euro-style)</p>	NPN L.O./D.O.	M18B-L1000N-CY6P4UE-PF	
		PNP L.O./D.O.	M18B-L1000P-CY6P4UE-PF	
		NPN/PNP L.O./D.O.		
	<p>20-250V AC (Micro-style)</p>	Light-ON (2-wire)		
		Dark-ON (2-wire)		
		Light-ON (3-wire)		
		Dark-ON (3-wire)		
	<p>12-240V DC/ 24-240V AC (Micro-style)</p>	Light-ON (2-wire)		
		Dark-ON (2-wire)		

Note: Used with RE-6152 (supplied with sensor) reflector.

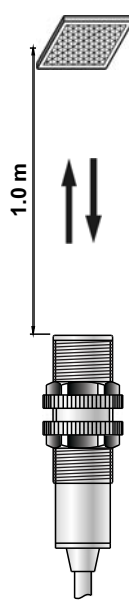



Retroreflective Mode with Polarizing Filter (Brass Housing, Standard shape)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p>Red Light LED</p>  <p>1.0 m</p> <p>Retro-reflective Mode with Polarizing Filter Sensing Distance: 1m (Note)</p>	<p>2m Cable</p> 	<p>10-30V DC</p>	NPN L.O./D.O.	M18B-L1000N-CX6C4U2-PF
			PNP L.O./D.O.	M18B-L1000P-CX6C4U2-PF
			NPN/PNP L.O./D.O.	
		<p>20-250V AC</p>	Light-ON (2-wire)	
			Dark-ON (2-wire)	
			Light-ON (3-wire)	
			Dark-ON (3-wire)	
		<p>12-240V DC/ 24-240V AC</p>	Light-ON (2-wire)	
			Dark-ON (2-wire)	
	<p>Quick Disconnect</p> 	<p>10-30V DC (Euro-style)</p>	NPN L.O./D.O.	M18B-L1000N-CX6Q4UE-PF
			PNP L.O./D.O.	M18B-L1000P-CX6Q4UE-PF
			NPN/PNP L.O./D.O.	
		<p>20-250V AC (Micro-style)</p>	Light-ON (2-wire)	
			Dark-ON (2-wire)	
			Light-ON (3-wire)	
			Dark-ON (3-wire)	
		<p>12-240V DC/ 24-240V AC (Micro-style)</p>	Light-ON (2-wire)	
			Dark-ON (2-wire)	
<p>6" Pig tail</p> 	<p>10-30V DC (Euro-style)</p>	NPN L.O./D.O.	M18B-L1000N-CX6P4UE-PF	
		PNP L.O./D.O.	M18B-L1000P-CX6P4UE-PF	
		NPN/PNP L.O./D.O.		
	<p>20-250V AC (Micro-style)</p>	Light-ON (2-wire)		
		Dark-ON (2-wire)		
		Light-ON (3-wire)		
		Dark-ON (3-wire)		
	<p>12-240V DC/ 24-240V AC (Micro-style)</p>	Light-ON (2-wire)		
		Dark-ON (2-wire)		

Note: Used with RE-6152 (supplied with sensor) reflector.

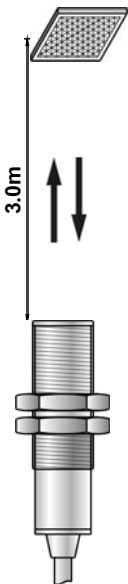



Retroreflective Mode with Polarizing Filter (Plastic Housing, Standard shape)

D: M18 SERIES

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p>Red Light LED</p>  <p>1.0 m</p> <p>Retro-reflective Mode with Polarizing Filter Sensing Distance: 1m (Note)</p>	<p>2m Cable</p>  <p>CE</p>	10-30V DC	NPN L.O./D.O.	M18P-L1000N-CX6C4U2-PF
			PNP L.O./D.O.	M18P-L1000P-CX6C4U2-PF
			NPN/PNP L.O./D.O.	
		20-250V AC	Light-ON (2-wire)	
			Dark-ON (2-wire)	
			Light-ON (3-wire)	
			Dark-ON (3-wire)	
		12-240V DC/ 24-240V AC	Light-ON (2-wire)	
			Dark-ON (2-wire)	
	<p>Quick Disconnect</p>  <p>CE</p>	10-30V DC (Euro-style)	NPN L.O./D.O.	M18P-L1000N-CX6Q4UE-PF
			PNP L.O./D.O.	M18P-L1000P-CX6Q4UE-PF
			NPN/PNP L.O./D.O.	
		20-250V AC (Micro-style)	Light-ON (2-wire)	
			Dark-ON (2-wire)	
			Light-ON (3-wire)	
			Dark-ON (3-wire)	
		12-240V DC/ 24-240V AC (Micro-style)	Light-ON (2-wire)	
			Dark-ON (2-wire)	
<p>6" Pig tail</p>  <p>CE</p>	10-30V DC (Euro-style)	NPN L.O./D.O.	M18P-L1000N-CX6P4UE-PF	
		PNP L.O./D.O.	M18P-L1000P-CX6P4UE-PF	
		NPN/PNP L.O./D.O.		
	20-250V AC (Micro-style)	Light-ON (2-wire)		
		Dark-ON (2-wire)		
		Light-ON (3-wire)		
		Dark-ON (3-wire)		
	12-240V DC/ 24-240V AC (Micro-style)	Light-ON (2-wire)		
		Dark-ON (2-wire)		

Note: Used with RE-6152 (supplied with sensor) reflector.

Retroreflective Mode (Brass Housing, Y shape)






Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p style="text-align: center;">Infrared LED</p>  <p style="text-align: center;">3.0m</p> <p style="text-align: center;">Retro-reflective Mode Sensing Distance: 3m (Note)</p>	<p>2m Cable</p>  <p style="text-align: center;">CE</p>	10-30V DC	NPN L.O./D.O.	M18B-L3000N-CY9C4U2
			PNP L.O./D.O.	M18B-L3000P-CY9C4U2
			NPN/PNP L.O./D.O.	
		20-250V AC	Light-ON (2-wire)	
			Dark-ON (2-wire)	
			Light-ON (3-wire)	
		12-240V DC/ 24-240V AC	Dark-ON (3-wire)	
			Light-ON (2-wire)	
		<p>Quick Disconnect</p>  <p style="text-align: center;">CE</p>	10-30V DC (Euro-style)	NPN L.O./D.O.
	PNP L.O./D.O.			M18B-L3000P-CY9Q4UE
	NPN/PNP L.O./D.O.			
	20-250V AC (Micro-style)		Light-ON (2-wire)	
			Dark-ON (2-wire)	
			Light-ON (3-wire)	
	12-240V DC/ 24-240V AC (Micro-style)		Dark-ON (3-wire)	
			Light-ON (2-wire)	
	<p>6" Pig tail</p>  <p style="text-align: center;">CE</p>		10-30V DC (Euro-style)	NPN L.O./D.O.
		PNP L.O./D.O.		M18B-L3000P-CY9P4UE
NPN/PNP L.O./D.O.				
20-250V AC (Micro-style)		Light-ON (2-wire)		
		Dark-ON (2-wire)		
		Light-ON (3-wire)		
12-240V DC/ 24-240V AC (Micro-style)		Dark-ON (3-wire)		
		Light-ON (2-wire)		
Dark-ON (2-wire)				

Note: Used with RE-6152 (supplied with sensor) reflector.

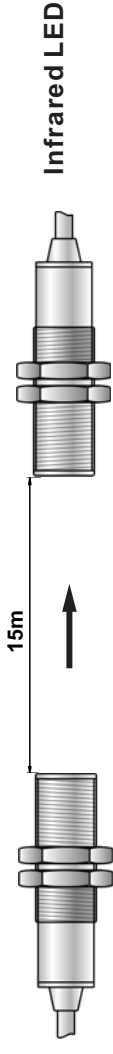



D : M18 SERIES

Thru-beam Mode (Plastic Housing, Standard shape)

D: M18 SERIES

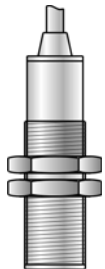
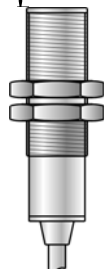



Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p>Infrared LED</p>  <p>15m</p>  <p>Thru-beam Mode Sensing Distance: 15m</p>	<p>2m Cable</p> 	10-30V DC	Emitter	M18P-T015MD-EX9C3L2
			NPN L.O./D.O.	M18P-T015MN-CX9C4U2
			PNP L.O./D.O.	M18P-T015MP-CX9C4U2
			NPN/PNP L.O./D.O.	
		20-250V AC	Emitter (2-wire)	M18P-T015MA-EX9C2L2
			Light-ON (2-wire)	
			Dark-ON (2-wire)	
			Light-ON (3-wire)	M18P-T015MA-LX9C3U2
		Dark-ON (3-wire)	M18P-T015MA-DX9C3U2	
	12-240V DC/ 24-240V AC	Emitter (2-wire)		
		Light-ON (2-wire)		
		Dark-ON (2-wire)		
	<p>Quick Disconnect</p> 	10-30V DC (Euro-style)	Emitter	M18P-T015MD-EX9Q4LE
			NPN L.O./D.O.	M18P-T015MN-CX9Q4UE
			PNP L.O./D.O.	M18P-T015MP-CX9Q4UE
			NPN/PNP L.O./D.O.	
		20-250V AC (Micro-style)	Emitter (2-wire)	M18P-T015MA-EX9Q4LM
			Light-ON (2-wire)	
Light-ON (3-wire)			M18P-T015MA-LX9Q4UM	
Dark-ON (3-wire)			M18P-T015MA-DX9Q4UM	
12-240V DC/ 24-240V AC (Micro-style)		Emitter (2-wire)		
	Light-ON (2-wire)			
	Dark-ON (2-wire)			
<p>6" Pig tail</p> 	10-30V DC (Euro-style)	Emitter	M18P-T015MD-EX9P4LE	
		NPN L.O./D.O.	M18P-T015MN-CX9P4UE	
		PNP L.O./D.O.	M18P-T015MP-CX9P4UE	
		NPN/PNP L.O./D.O.		
	20-250V AC (Micro-style)	Emitter (2-wire)	M18P-T015MA-EX9P4LM	
		Light-ON (2-wire)		
		Dark-ON (2-wire)		
		Light-ON (3-wire)	M18P-T015MA-LX9P4UM	
	Dark-ON (3-wire)	M18P-T015MA-DX9P4UM		
12-240V DC/ 24-240V AC (Micro-style)	Emitter (2-wire)			
	Light-ON (2-wire)			
	Dark-ON (2-wire)			

Thru-beam Mode (Brass Housing, Standard shape)

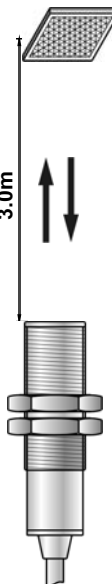



Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
 <p>Infrared LED</p> <p>15m</p> <p>Thru-beam Mode Sensing Distance: 15m</p>	2m Cable 	10-30V DC	Emitter	M18B-T015MD-EX9C4U2
			NPN L.O./D.O.	M18B-T015MN-CX9C4U2
			PNP L.O./D.O.	M18B-T015MP-CX9C4U2
			NPN/PNP L.O./D.O.	
		20-250V AC	Emitter (2-wire)	M18B-T015MA-EX9C2L2
			Light-ON (2-wire)	
			Dark-ON (2-wire)	
			Light-ON (3-wire)	M18B-T015MA-LX9C3U2
		Dark-ON (3-wire)	M18B-T015MA-DX9C3U2	
		12-240V DC/ 24-240V AC	Emitter (2-wire)	
			Light-ON (2-wire)	
			Dark-ON (2-wire)	
	Quick Disconnect 	10-30V DC (Euro-style)	Emitter	M18B-T015MD-EX9Q4LE
			NPN L.O./D.O.	M18B-T015MN-CX9Q4UE
			PNP L.O./D.O.	M18B-T015MP-CX9Q4UE
			NPN/PNP L.O./D.O.	
		20-250V AC (Micro-style)	Emitter (2-wire)	M18B-T015MA-EX9Q4LM
			Light-ON (2-wire)	
			Light-ON (3-wire)	M18B-T015MA-LX9Q4UM
			Dark-ON (3-wire)	M18B-T015MA-DX9Q4UM
		12-240V DC/ 24-240V AC (Micro-style)	Emitter (2-wire)	
			Light-ON (2-wire)	
			Dark-ON (2-wire)	
		6" Pig tail 	10-30V DC (Euro-style)	Emitter
NPN L.O./D.O.	M18B-T015MN-CX9P4UE			
PNP L.O./D.O.	M18B-T015MP-CX9P4UE			
NPN/PNP L.O./D.O.				
20-250V AC (Micro-style)	Emitter (2-wire)		M18B-T015MA-EX9P4LM	
	Light-ON (2-wire)			
	Dark-ON (2-wire)			
	Light-ON (3-wire)		M18B-T015MA-LX9P4UM	
Dark-ON (3-wire)	M18B-T015MA-DX9P4UM			
12-240V DC/ 24-240V AC (Micro-style)	Emitter (2-wire)			
	Light-ON (2-wire)			
	Dark-ON (2-wire)			

D : M18 SERIES

Thru-beam Mode (Brass Housing, Y shape)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p>Infrared LED</p>  <p>15m</p> <p>↑</p>  <p>Thru-beam Mode</p> <p>Sensing Distance: 15m</p>	<p>2m Cable</p> 	10-30V DC	Emitter	M18B-T015MD-EY9C3L2
			NPN L.O./D.O.	M18B-T015MN-CY9C4U2
			PNP L.O./D.O.	M18B-T015MP-CY9C4U2
			NPN/PNP L.O./D.O.	
		20-250V AC	Emitter (2-wire)	
			Light-ON (2-wire)	
			Dark-ON (2-wire)	
			Light-ON (3-wire)	
			Dark-ON (3-wire)	
	12-240V DC/ 24-240V AC	Emitter (2-wire)		
		Light-ON (2-wire)		
		Dark-ON (2-wire)		
	<p>Quick Disconnect</p> 	10-30V DC (Euro-style)	Emitter	M18B-T015MD-EY9Q4LE
			NPN L.O./D.O.	M18B-T015MN-CY9Q4UE
			PNP L.O./D.O.	M18B-T015MP-CY9Q4UE
			NPN/PNP L.O./D.O.	
		20-250V AC (Micro-style)	Emitter (2-wire)	
Light-ON (2-wire)				
Dark-ON (2-wire)				
Light-ON (3-wire)				
Dark-ON (3-wire)				
12-240V DC/ 24-240V AC (Micro-style)	Emitter (2-wire)			
	Light-ON (2-wire)			
	Dark-ON (2-wire)			
<p>6" Pig tail</p> 	10-30V DC (Euro-style)	Emitter	M18B-T015MD-EY9P4LE	
		NPN L.O./D.O.	M18B-T015MN-CY9P4UE	
		PNP L.O./D.O.	M18B-T015MP-CY9P4UE	
		NPN/PNP L.O./D.O.		
	20-250V AC (Micro-style)	Emitter (2-wire)		
		Light-ON (2-wire)		
		Dark-ON (2-wire)		
		Light-ON (3-wire)		
		Dark-ON (3-wire)		
	12-240V DC/ 24-240V AC (Micro-style)	Emitter (2-wire)		
		Light-ON (2-wire)		
		Dark-ON (2-wire)		

Retroreflective Mode (Brass Housing, Standard shape)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p>Infrared LED</p>  <p>3.0m</p> <p>Retro-reflective Mode Sensing Distance: 3m (Note)</p>	<p>2m Cable</p>  <p>CE</p>	<p>10-30V DC</p>	NPN L.O./D.O.	M18B-L3000N-CX9C4U2
			PNP L.O./D.O.	M18B-L3000P-CX9C4U2
			NPN/PNP L.O./D.O.	
		<p>20-250V AC</p>	Light-ON (2-wire)	
			Dark-ON (2-wire)	
			Light-ON (3-wire)	M18B-L3000A-LX9C3U2
		Dark-ON (3-wire)	M18B-L3000A-DX9C3U2	
		<p>12-240V DC/ 24-240V AC</p>	Light-ON (2-wire)	
			Dark-ON (2-wire)	
	<p>Quick Disconnect</p>  <p>CE</p>	<p>10-30V DC (Euro-style)</p>	NPN L.O./D.O.	M18B-L3000N-CX9Q4UE
			PNP L.O./D.O.	M18B-L3000P-CX9Q4UE
			NPN/PNP L.O./D.O.	
		<p>20-250V AC (Micro-style)</p>	Light-ON (2-wire)	
			Dark-ON (2-wire)	
			Light-ON (3-wire)	M18B-L3000A-LX9Q4UM
		Dark-ON (3-wire)	M18B-L3000A-DX9Q4UM	
		<p>12-240V DC/ 24-240V AC (Micro-style)</p>	Light-ON (2-wire)	
			Dark-ON (2-wire)	
<p>6" Pig tail</p>  <p>CE</p>	<p>10-30V DC (Euro-style)</p>	NPN L.O./D.O.	M18B-L3000N-CX9P4UE	
		PNP L.O./D.O.	M18B-L3000P-CX9P4UE	
		NPN/PNP L.O./D.O.		
	<p>20-250V AC (Micro-style)</p>	Light-ON (2-wire)		
		Dark-ON (2-wire)		
		Light-ON (3-wire)	M18B-L3000A-LX9P4UM	
	Dark-ON (3-wire)	M18B-L3000A-DX9P4UM		
	<p>12-240V DC/ 24-240V AC (Micro-style)</p>	Light-ON (2-wire)		
		Dark-ON (2-wire)		

Note: Used with RE-6152 (supplied with sensor) reflector.

D : M18 SERIES

Specifications (DC)

Item	Type	Retroreflective		Diffuse Reflective		
	Model No.	Thru-beam	with polarizing filters			
		M18x-T015Mx-xxxxxx	M18x-L3000x-xxxxxx	M18x-L1000x-xxxxxx-PF	M18x-D0150x-xxxxxx	M18x-D0500x-xxxxxx
Sensing Range		15m	3m (Note)	1m (Note)	150mm	500mm
Sensing Object		Opaque object of ϕ 8mm or more	3-way mirror	3-way mirror	White paper	
Hysteresis		—			20% or less of operation distance	
Supply Voltage		10 to 30V DC, Ripple P-P 10% or less				
Current Consumption		30mA or less				
Output		<NPN> output type NPN open-collector transistor <ul style="list-style-type: none"> • Applied voltage: 30V DC or less • Maximum sink current: 200mA • Voltage drop: 2.5V or less 		<PNP> output type PNP open-collector transistor <ul style="list-style-type: none"> • Applied voltage: 30V DC or less • Maximum source current: 200mA • Voltage drop: 2.5V or less 		
Output Operation		Selectable either Light-ON Dark-ON by the control input wire				
Short-circuit Protection		Yes				
Reverse Polarity Protection		Yes				
Overload Current Protection		Yes				
Response Time		1.5ms				
Operation Indicator		Red LED (light up when the output is activated), Thru-beam sensor is provided it on the receiver				
Pollution Degree		3(Industrial environment)				
Protection		IP67(IEC)				
Ambient Temperature		-25°C to +55°C				
Ambient Humidity		35 to 85% RH, Storage: 35 to 85% RH				
EMC		IEC 60947-5-2, Parts 7.2.6.1. 2. 3 or RFI>3V/m(in 30-1000MHZ), EFT>1KV, ESD>4KV(contact)				
Voltage Withstand Ability		IEC 60947-5-2, Part 8.3.3.4 or 1500VAC for one min, between all supply terminals connected together and enclosure				
Insulation Resistance		>20M Ω , with 1500V AC megger between all supply terminals connected together and enclosure				
Vibration Resistance		IEC 60947-5-2, Part 7.4.2 or 10-55HZ, 1.0mm amplitude in x, y and z directions for 30 min				
Shock Resistance		IEC 60947-5-2, Part 7.4.1 or 30g, 11ms in x, y and z directions for six time each				
Emitting Element		Infrared LED (modulated)	Red LED (modulated)	Infrared LED (modulated)		
Housing Material		Plastic Housing: PBT; Metal Housing: Nickel-plated Brass				
Cable		2m or 9m 5.8 ϕ (Plastic Housing: 4 ϕ) 4X0.5 (Emitter :3X0.5) PVC.				
Pigtail Type		See Pigtail Series or our Cables & Connectors catalogue.				

Note: Used with RE-6152 (supplied with sensor) reflector.

Specifications (AC)

Item	Type	Retroreflective		Diffuse Reflective		
	Model No.	Thru-beam		with polarizing filters		
		M18x-T015MA-xxxxxx	M18x-L3000A-xxxxxx	M18x-L1000A-xxxxxx-PF	M18x-D0150A-xxxxxx	M18x-D0500A-xxxxxx
Sensing Range		15m	3m (Note)	1m (Note)	150mm	500mm
Sensing Object		Opaque object of 8mm or more	3-way mirror	3-way mirror	White paper	
Hysteresis		—			20% or less of operation distance	
Supply Voltage		20 to 250V AC				
Current Consumption		Emitter: 30mA or less Receiver: 5mA or less	5mA or less			
Output		AC non-contact (thyristor output) <ul style="list-style-type: none"> • Applied voltage: 20 to 250V AC • Max. Load current: 300mA • Voltage drop: 10V AC or less 				
Output Operation		Selectable either Light-ON Dark-ON by type number				
Overload Current Protection		Yes				
Response Time		15ms				
Operation Indicator		Red LED (light up when the output is activated), Thru-beam sensor is provided it on the receiver				
Pollution Degree		3(Industrial environment)				
Protection		IP67(IEC)				
Ambient Temperature		-25°C to +55°C				
Ambient Humidity		35 to 85% RH, Storage: 35 to 85% RH				
EMC		IEC 60947-5-2, Parts 7.2.6.1. 2. 3 or RFI>3V/m(in 30-1000MHZ), EFT>1KV, ESD>4KV(contact)				
Voltage Withstand Ability		IEC 60947-5-2, Part 8.3.3.4 or 1500VAC for one min, between all supply terminals connected together and enclosure				
Insulation Resistance		>20M Ω , with 1500V AC megger between all supply terminals connected together and enclosure				
Vibration Resistance		IEC 60947-5-2, Part 7.4.2 or 10-55HZ, 1.0mm amplitude in x , y and z directions for 30 min				
Shock Resistance		IEC 60947-5-2, Part 7.4.1 or 30g, 11ms in x , y and z directions for six time each				
Emitting Element		Infrared LED (modulated)		Red LED (modulated)	Infrared LED (modulated)	
Material		Plastic Housing: PBT; Metal Housing: Nickel-plated Brass				
Cable		2m or 9m 5.8 ϕ (Plastic Housing: 4 ϕ) 4X0.5 (Emitter :3X0.5) PVC.				
Pig tail Type		See Pigtail Series or our Cables & Connectors catalogue.				

Note: Used with RE-6152 (supplied with sensor) reflector.

Specifications (AC/DC)

Item	Type	Thru-beam	Retroreflective		Diffuse Reflective	
	Model No.			with polarizing filters		
		M18x-T015MC-xxxxxx	M18x-L3000C-xxxxxx	M18x-L1000C-xxxxxx-PF	M18x-D0150C-xxxxxx	M18x-D0500C-xxxxxx
Sensing Range		15m	3m (Note)	1m (Note)	150mm	500mm
Sensing Object		Opaque object of 8mm or more	3-way mirror	3-way mirror	White paper	
Hysteresis		—			20% or less of operation distance	
Supply Voltage		12-240V DC / 24-240V AC				
Current Consumption		Emitter: 30mA or less Receiver: 5mA or less	30mA or less			
Output		AC/DC non-contact (thyristor output) <ul style="list-style-type: none"> • Applied voltage: 12 to 240V DC or 24 to 240V AC • Max. Load current: 300mA • Voltage drop: 10V at AC or 2.5V at DC or less 				
Output Operation		Selectable either Light-ON Dark-ON by type number				
Overload Current Protection		Yes				
Response Time		15ms				
Operation Indicator		Red LED (light up when the output is activated), Thru-beam sensor is provided on th receiver				
Pollution Degree		3(Industrial environment)				
Protection		IP67(IEC)				
Ambient Temperature		-25°C to +55°C				
Ambient Humidity		35 to 85% RH,Storage:35 to 85% RH				
EMC		IEC 60947-5-2, Parts 7.2.6.1. 2. 3 or RFI>3V/m(in 30-1000MHZ), EFT>1KV, ESD>4KV(contact)				
Voltage Withstand Ability		IEC 60947-5-2, Part 8.3.3.4 or 1500VAC for one min, between all supply terminals connected together and enclosure				
Insulation Resistance		>20M ^Ω , with 1500V AC megger between all supply terminals connected together and enclosure				
Vibration Resistance		IEC 60947-5-2, Part 7.4.2 or 10-55HZ, 1.0mm amplitude in x , y and z directions for 30 min				
Shock Resistance		IEC 60947-5-2, Part 7.4.1 or 30g, 11ms in x , y and z directions for six time each				
Emitting Element		Infrared LED (modulated)		Red LED (modulated)	Infrared LED (modulated)	
Material		Plastic Housing: PBT; Metal Housing: Nickel-plated Brass				
Cable		2m or 9m 5.8ϕ (Plastic Housing:4ϕ) 4X0.5 (Emitter :3X0.5) PVC.				
Pigtail Type		See Pigtail Series or our Cables & Connectors catalogue.				

Note: Used with RE-6152 (supplied with sensor) reflector.