















## Specifications (DC)

Item	Type Model No.	Retroreflective		Diffuse Reflective			
		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	1m	150mm	500mm	
Sensing Object		Opaque object of $\phi$ 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"> <li>• Applied voltage: 30V DC or less</li> <li>• Maximum sink current: 200mA</li> <li>• Voltage drop: 2.5V or less</li> </ul>			<PNP> output type PNP open-collector transistor <ul style="list-style-type: none"> <li>• Applied voltage: 30V DC or less</li> <li>• Maximum source current: 200mA</li> <li>• Voltage drop: 2.5V or less</li> </ul>		
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 $\Omega$ , 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 $\phi$ (Plastic Housing: 4 $\phi$ ) 4X0.5 (Emitter :3X0.5) PVC.					
Pigtail Type		See page Q-01 for cable and connect at pigtail					

## Thru-beam Mode (Brass Housing)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number	
<b>Infrared LED</b>  15m  <b>Thru-beam Mode</b> <b>Sensing Distance: 15m</b>	 Cable 	10-30V DC	Emitter	M18B-T015MD-EX9C3L2	
			NPN Light/dark changeover	M18B-T015MN-CX9C4U2	
			PNP Light/dark changeover	M18B-T015MP-CX9C4U2	
		 Quick Disconnect 	10-30V DC	Emitter	M18B-T015MD-EX9Q4LE
		NPN Light/dark changeover		M18B-T015MN-CX9Q4UE	
		PNP Light/dark changeover		M18B-T015MP-CX9Q4UE	
	 Euro 4 Pins 6" Pig tail 	10-30V DC	Emitter	M18B-T015MD-EX9P4LE	
	NPN Light/dark changeover		M18B-T015MN-CX9P4UE		
	PNP Light/dark changeover		M18B-T015MP-CX9P4UE		
	 Cable Right-Angle 	10-30V DC	Emitter	M18B-T015MD-EY9C3L2-Y	
	NPN Light/dark changeover		M18B-T015MN-CY9C4U2-Y		
	PNP Light/dark changeover		M18B-T015MP-CY9C4U2-Y		
	 Quick Disconnect Right-Angle 	10-30V DC	Emitter	M18B-T015MD-EY9Q4LE-Y	
	NPN Light/dark changeover		M18B-T015MN-CY9Q4UE-Y		
	PNP Light/dark changeover		M18B-T015MP-CY9Q4UE-Y		
	 Euro 4 Pins 6" Pig tail Right-Angle 	10-30V DC	Emitter	M18B-T015MD-EY9P4LE-Y	
	NPN Light/dark changeover		M18B-T015MN-CY9P4UE-Y		
	PNP Light/dark changeover		M18B-T015MP-CY9P4UE-Y		