








Mini / Easy Mount Photoelectric Sensor

■ Features

- Compact size.
- Easy to adjust the sensitivity by VR located at out side.
- Easy to mount by threads in mounting hole.
- Built-in protection circuit against reverse power polarity.



■ Ordering information

Type	Detecting distance	Model	Operating voltage	Operating mode	Output
Through 	 3m	BM3M-TDT	DC 	Dark ON	TR output
Retro reflective 	 0.1 to 1m	BM1M-MDT		Dark ON	
Diffuse reflective 	 200mm	BM200-DDT BM200-DDTN		Light ON	

■ Specification

Type	Through	Retroreflective	Diffuse reflective	
			Diffuse reflective	Narrow reflective
Model	BM3M-TDT	BM1M-MDT	BM200-DDT	BM200-DDTN
Detecting distance	3m	0.1 to 1m	200mm (200×200mm white tissue)	200mm (200×200mm white tissue)
Detecting target	Opaque materials of Min. ϕ 8mm	Opaque materials of Min. ϕ 60mm	Transparent, Translucent Opaque materials	
Hysteresis	_____		Max.10% at rated setting distance	
Response time	Max. 3mS			
Power supply	12 to 24VDC \pm 10% (ripple P-P:Max. 10%)			
Power consumption	Max. 45mA	Max. 40mA		
Source of light	Emitter:infrared LED, receiver:photo TR			
Sensitivity	Fixed		Adjustable	
Operating mode	Dark ON		Light ON	
Control output	NPN open collector output \Rightarrow load voltage 30V, load current Max. 100mA, residual voltage Max. 1V			
Protection circuit	Reverse polarity protection			
Indicator	Operating indicator : red LED			
Connection	Cable connection			
Insulation resistance	Min. 20M Ω (500VDC)			
Noise strength	Power line \pm 240V at pulse band 1 μ s of noise simulation			
Dielectric strength	1,000VAC 50/60Hz for 1 minute			
Vibration	1.5mm amplitude at frequency of 10 to 55Hz in each of X,Y,Z directions for 2 hours			
Shock	500m/s ² (50G) in X,Y,Z directions for 3 times			
Ambient operating illumination	Sunlight:11,000 Lux. Max., Incandescent lamp:3,000 Lux. Max.			
Ambient temperature	Operating: -10 to 60 $^{\circ}$ C (non-freezing condition), Storage: -25 to 70 $^{\circ}$ C			
Humidity	35 to 85% RH, Storage:35 to 85% RH			
Protection	Case:ABS, Lens:Acryl			
Cable	3P, 4 ϕ mm, length:2m			
Weight	About 170g	About 105g	About 88g	About 90g
Accessories	Individual	_____	Mirror(MS-2)	_____
	Common	Mounting Bracket,Cable holder, Ring,Rubber,Bolts/Nuts		

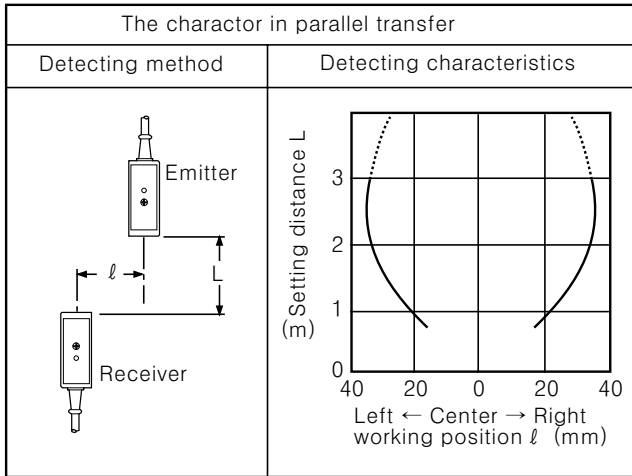
*The weight of above chart is net weight.

BM SERIES

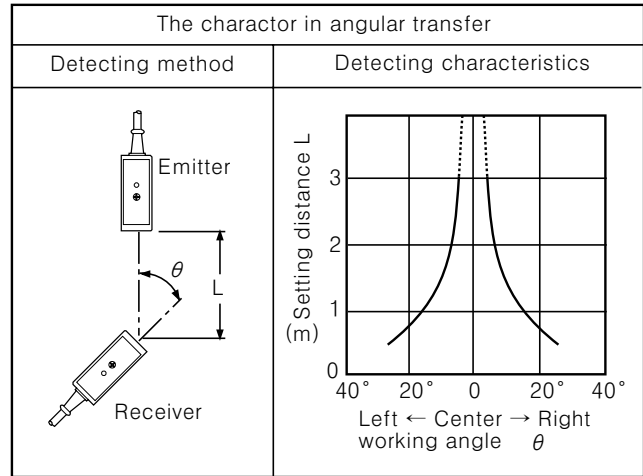
■ Detecting characteristics

○ Through type

●BM3M-TDT

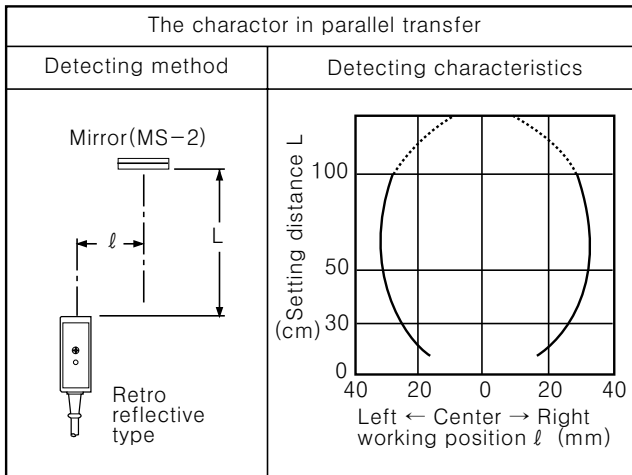


●BM3M-TDT

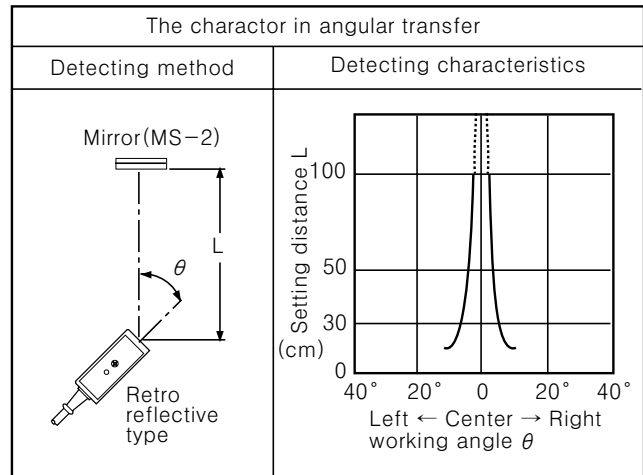


○ Retroreflective type

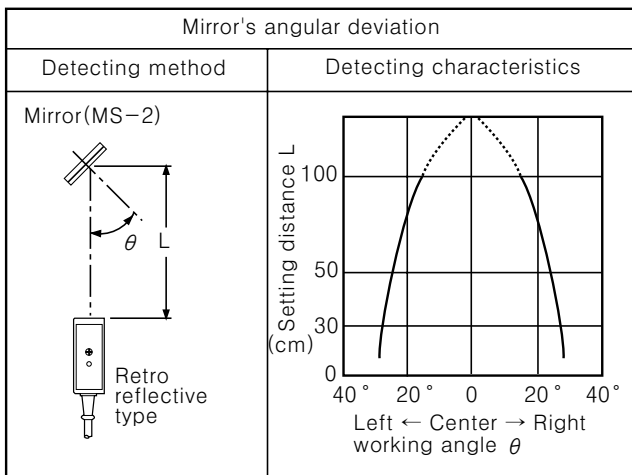
●BM1M-MDT



●BM1M-MDT

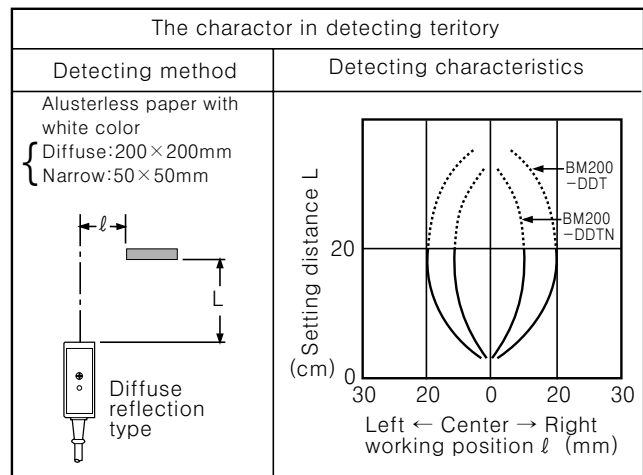


●BM1M-MDT

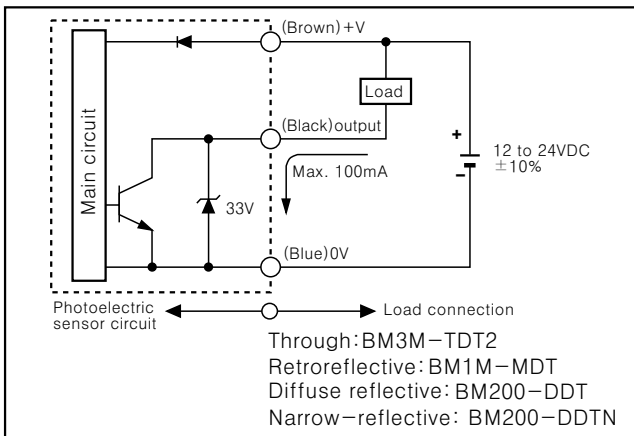


○ Diffuse reflective type

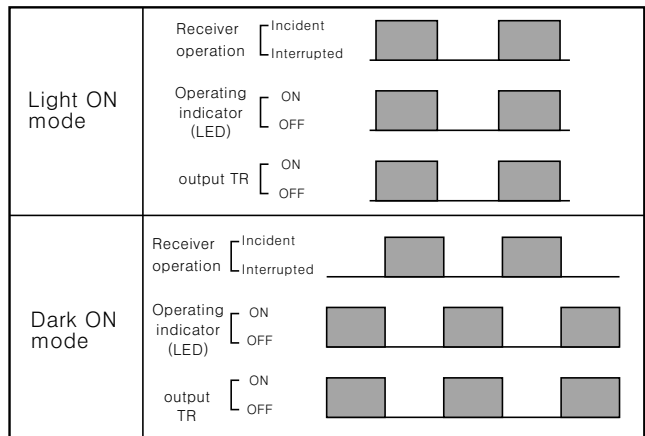
●BM200-DDT ●BM200-DDTN



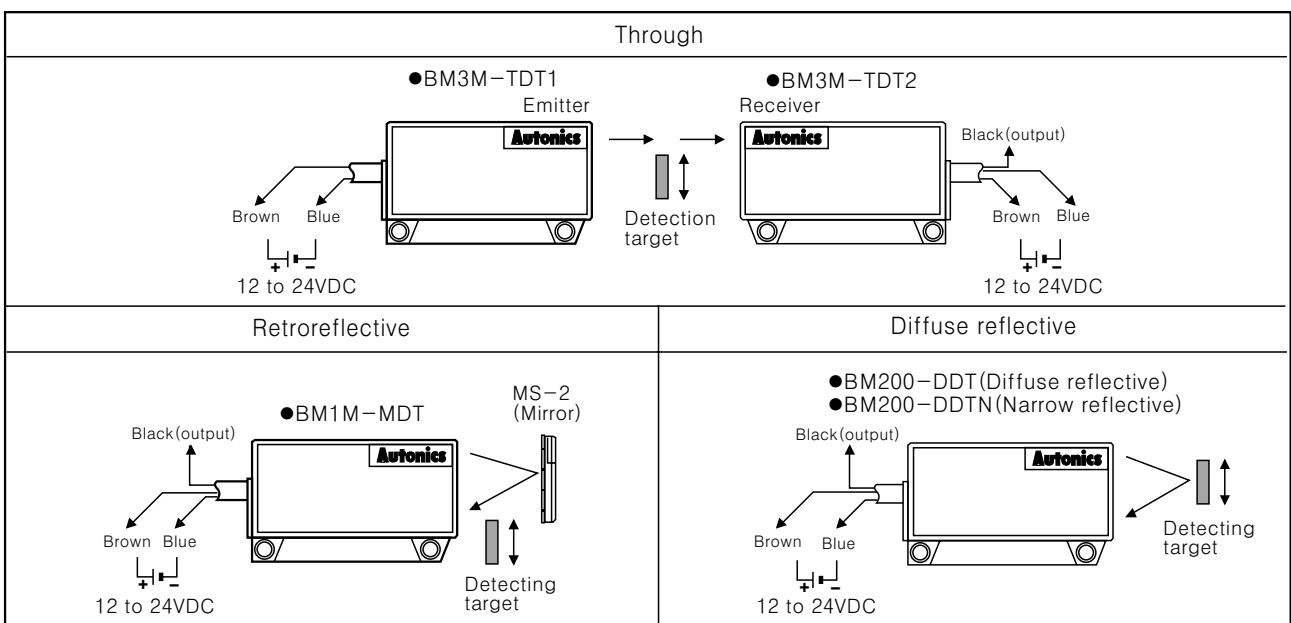
Control output circuit



Operating mode and time chart



Connection



※ Non-using wires must be insulated.

Dimension

