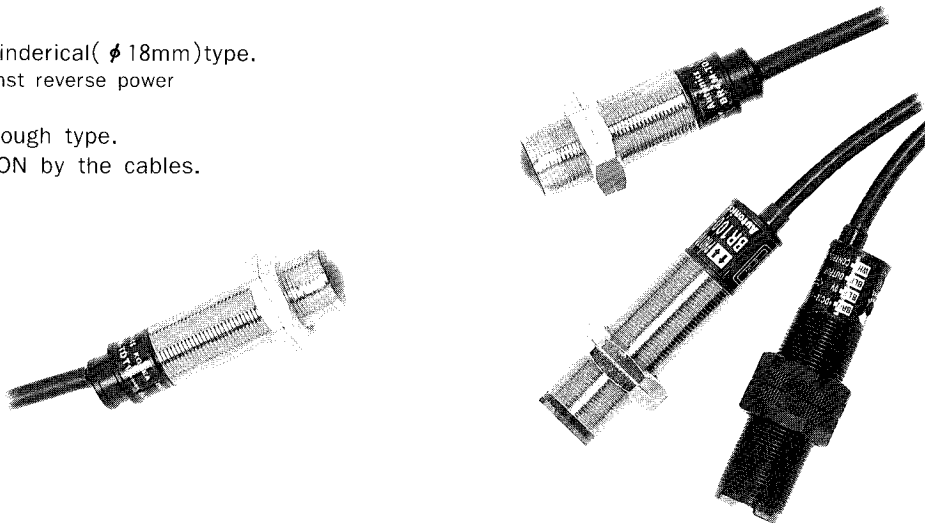


BR SERIES

Photoelectric sensor of cylindrical(ϕ 18mm)type.

■Features

- Photoelectric sensor of cylindrical(ϕ 18mm)type.
- Built-in protection circuit against reverse power polarity.
- Built-in the adjuster in through type.
- Selectable Light ON/Dark ON by the cables. (Through type)
- IP66(IEC specification)



■Ordering information

Type		Detecting distance	Model	Operating voltage	Operating mode	Output
Through		4m	BR4M-TDT	DC	Dark ON	NPN open collector
Diffuse reflective		100mm	BR100-DDT			
			BRP100-DDT			

■Specification

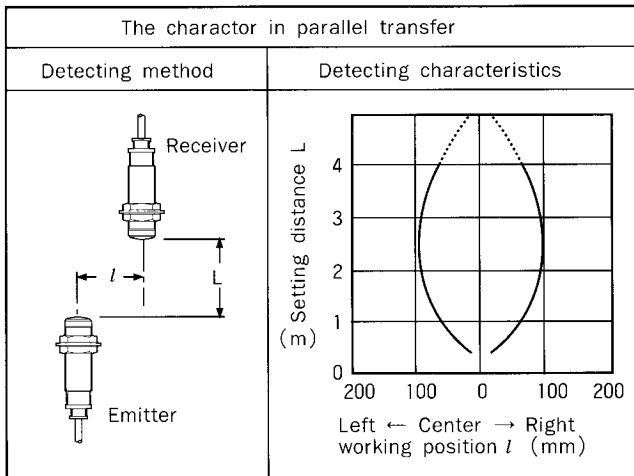
Type	Diffuse reflective		Through
Model	BRP100-DDT	BR100-DDT	BR4M-TDT
Detecting distance	100mm(50×50mm white tissue)		4m
Detecting target	Transparent, Translucent Opaque materials		Opaque materials of Min. ϕ 15mm
Response time	Max. 1mS		Max. 3mS
Power supply	12 to 24VDC \pm 10% (ripple P-P:Max. 10%)		
Power consumption	Max. 40mA		
Source of light	Infrared LED		
Sensitivity	Adjustable		Fixed
Operating mode	Selectable Light ON or Dark ON by control wire		Dark ON
Control output	· NPN open collector output \Rightarrow load voltage Max. 30V, load current Max. 200mA, residual voltage Max. 1V		· NPN open collector output \Rightarrow load voltage Max. 30V, load current Max. 100mA, residual voltage Max. 1V
Protection circuit	Short-circuit protection, Reverse polarity protection		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	500VAC 50/60Hz for 1minute		
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		
Structure of protection	IP66(IEC specification)		
Material	Case:nylon(black), Lens:Acryl	Case:BrC ₂ (Cr-plate), Lens:Acryl(BR4M-TDT:glass)	
Cable	4P, ϕ 4.8mm, length:2m		3P, ϕ 5.5mm, length:2m
Weight	About 100g	About 120g	About 300g
Accessories	Mounting Nuts		Mounting Ring, Nuts

※ The weight of above chart is net weight.

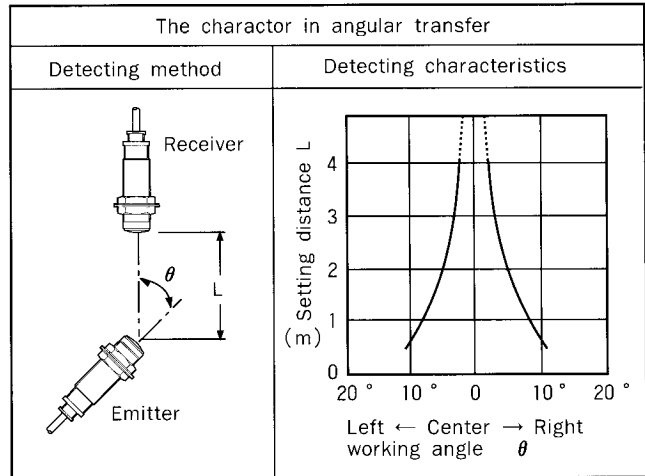
■ Detecting characteristics

◎ Through type

● BR4M-TDT

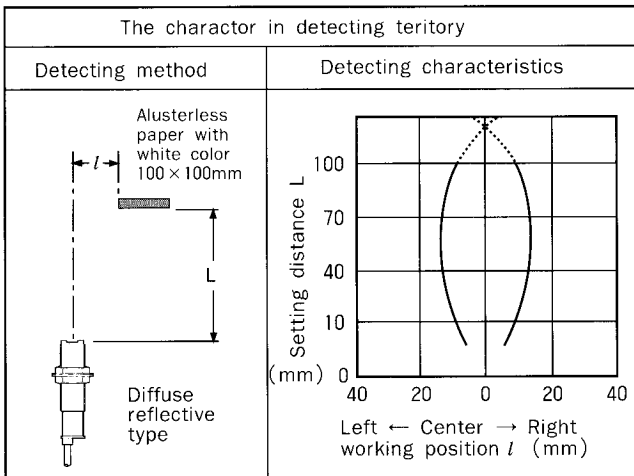


● BR4M-TDT



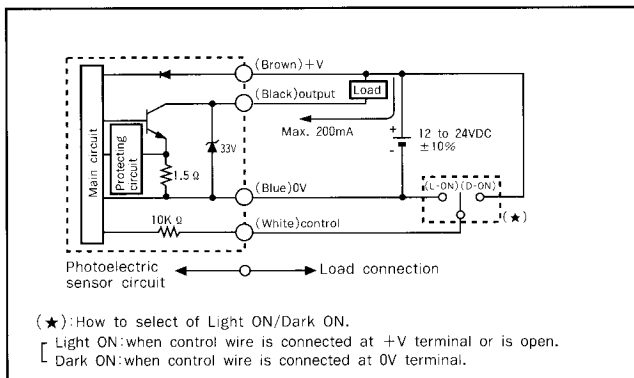
◎ Diffuse reflective type

● BR100-DDT, BRP100-DDT

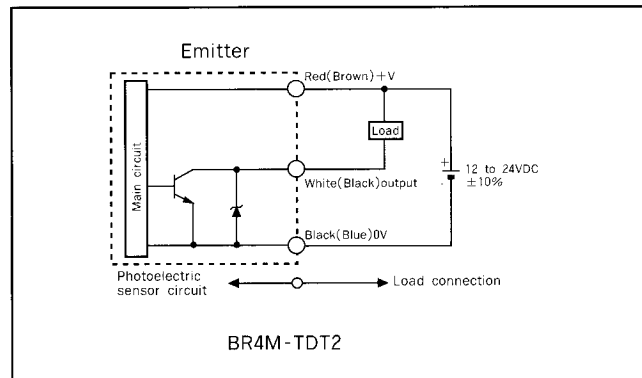


■ Control output circuits

● BR100-DDT, BRP100-DDT

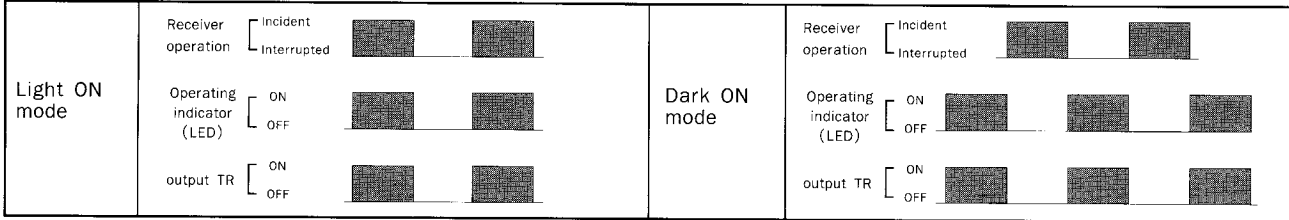


● BR4M-TDT



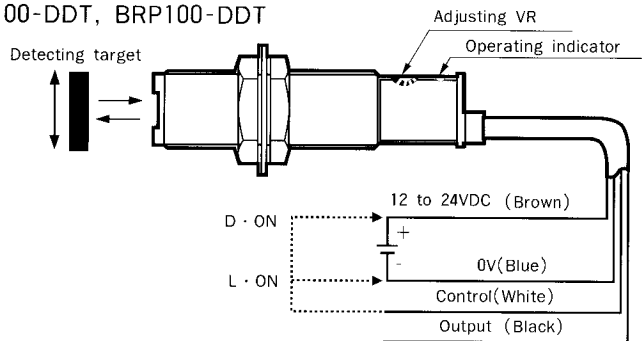
BR SERIES

Operating mode and time chart

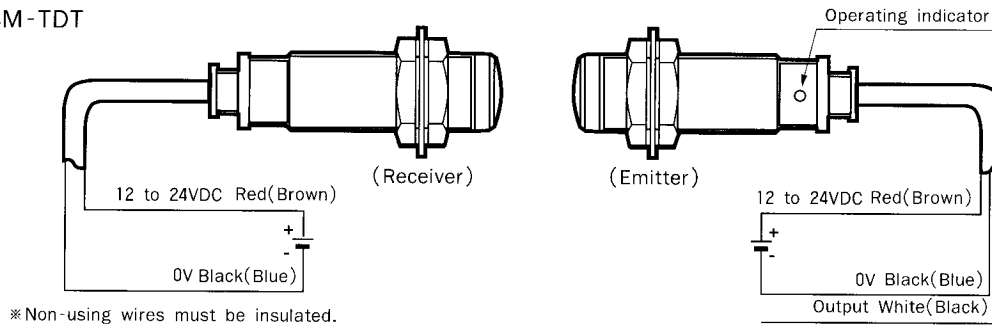


Connections

BR100-DDT, BRP100-DDT

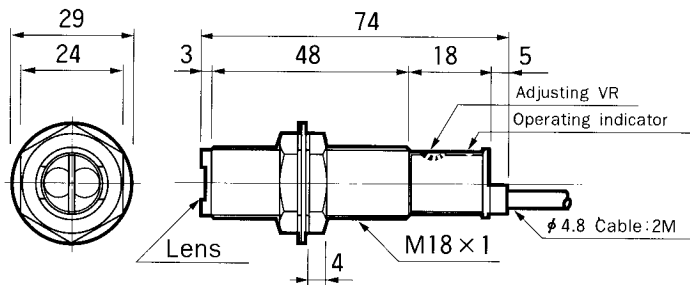


BR4M-TDT

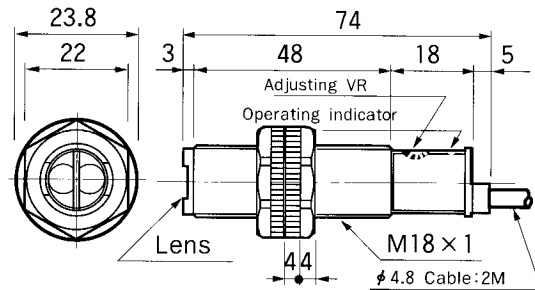


Dimensions

BR100-DDT



BRP100-DDT



BR4M-TDT

