

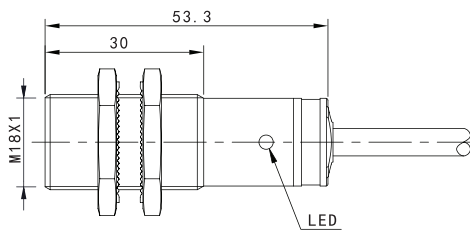


Appearance

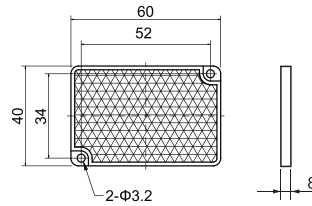
Sensing type	Diffuse reflection		Thru-beam		Retro-reflection	
Sensing distance	10cm(fixed)	40cm(adjustable)	1000cm(fixed)	2000cm(fixed)	300cm(fixed)	
Hysteresis	3~20%		...			
Repeat accuracy	< 5%					
Output type	NPN/PNP Open-collector					
Switch type	Selectable L.on/D.on					
Indicator	Yellow LED		Green LED(Emitter)/Yellow LED(Receiver)		Yellow LED	
Response time	< 8.2 ms					
Light source	Infrared LED(880nm)					
Operating voltage	10~30V DC					
Voltage drop	< 2.5V					
Current consumption	< 25mA					
Load current	< 200mA					
Protection circuit	Reverse polarity, short circuit, surge protection					
Ambient temperature	-15°C~+55°C, No freezing					
Ambient humidity	35%~95% RH, No condensation					
Degree of protection	IP67					
Material	Nickel copper alloy					
Connection method	2M 4core cable					
Model No.	NPN	<b>PM18-D10NR</b>	<b>PM18-D40NR</b> <span style="color:red">HOT</span>	<b>PM18-TM10NR</b>	<b>PM18-TM20NR</b>	<b>PM18-R300NR</b>
	PNP	<b>PM18-D10PR</b>	<b>PM18-D40PR</b>	<b>PM18-TM10PR</b>	<b>PM18-TM20PR</b>	<b>PM18-R300PR</b>

**Dimensions**

Unit: mm



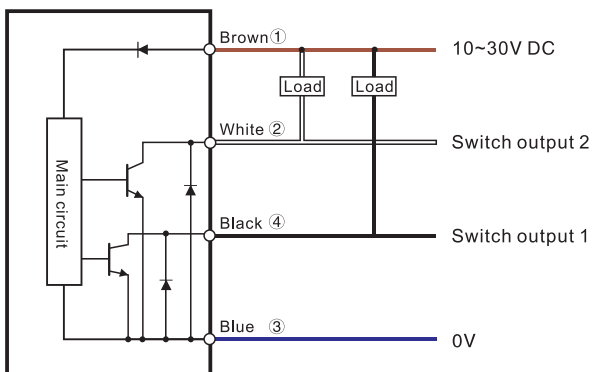
**Reflector for PM18-R300**



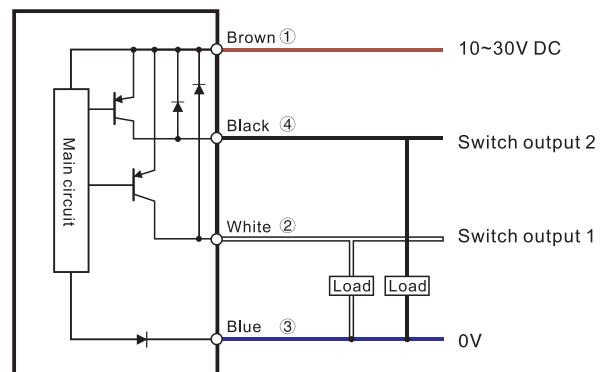
(Standard TD-09)

**Circuit diagram**

**NPN Output**



**PNP Output**



# Cylindrical

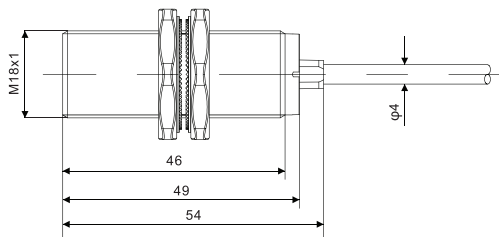
## PM18 Series



Appearance						
Sensing type	Disffuse Reflection		Thru-beam			
Sensing distance	10cm(fixed)		5m(fixed)	20m(fixed)		
Detected object	100mm × 100mm 90% whiteness white paper		> φ 18mm,opaque			
Output type	NPN Open-collector		NPN/PNP Open-collector			
Switch type	L.on		Selectable L.on/D.on			
Indicator	Motion indicator light: yellow		Transmitter end: power indicator: green; Receiving end: action indicator light: yellow		Transmitter end: power indicator: yellow; Receiving end: action indicator light: yellow; power indicator: green;	
Response frequency	900HZ		150HZ			
Light source	Infrared LED 940nm (modulation)		Infrared LED 850nm (modulation)			
Operating voltage	10~30V DC		12~24V DC	10~24V DC		
residual voltage			< 2V		< 1.5V	
Current consumption	<25mA		Transmitter < 20 mA; Receiver <20mA		Transmitter < 25 mA; Receiver <25mA	
Load current	< 150mA					
Protective circuit	Reverse polarity, short circuit, surge protection					
Ambient temperature	-20°C~+55°C, No freezing		-20°C~+60°C, No freezing		-20°C~+55°C, No freezing	
Storage temperature	-25°C~+65°C		-25°C~+70°C		-25°C~+55°C	
Ambient humidity	35~90% RH, No condensation			35~85% RH, No condensation		
Store humidity	35~90% RH			35~85% RH		
Withstand Voltage	± 1000V 50/60Hz 60s					
Electrostatic	± 4000V			± 8000V		
group value	± 2000V					
Resistance	10~50Hz, 0.5mm amplitude, X, Y, Z direction 2 hours each					
Ambient brightness	Incandescent lamp: < 3000lux, sunlight: < 10000lux					
Degree of protection	IP67					
Material	Nickel copper alloy			Housing: PC		
Connection method	2M 3core cable					
Model No.	NPN	<b>PM18-D10NO</b>	<b>PM18-D10NC</b>	<b>PM18-TM05NO</b>	<b>PM18-TM20NO</b>	<b>PM18-TM20NC</b>
	PNP			<b>PM18-TM05PO</b>	<b>PM18-TM20PO</b>	<b>PM18-TM20PC</b>

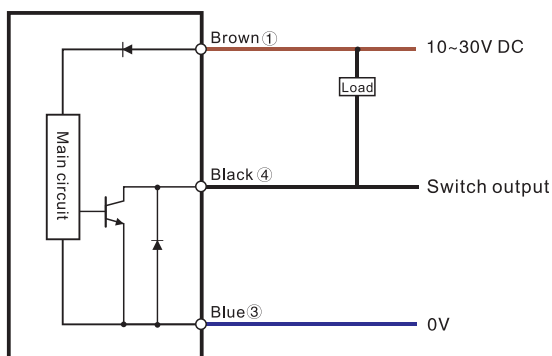
### Dimensions

Unit: mm



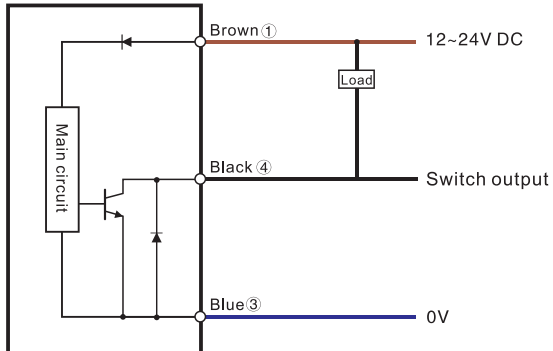
### Circuit diagram

#### NPN Output

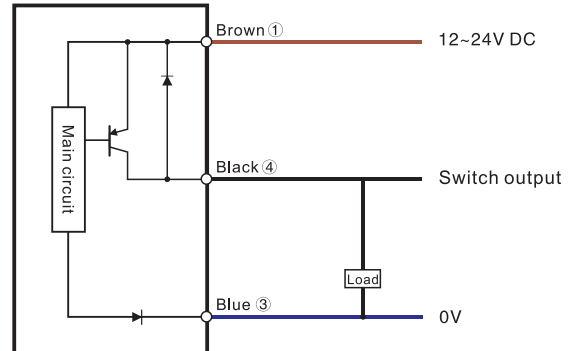


### PM18-TM05N(P)O

#### NPN Output

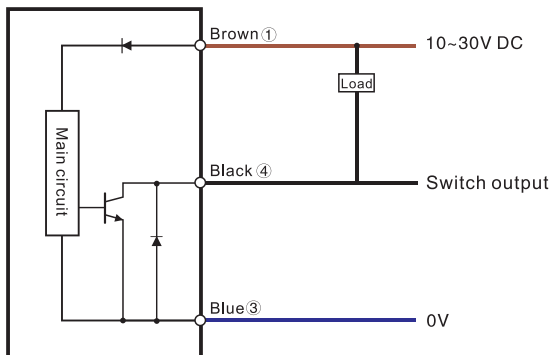


#### PNP Output



### PM18-TM20N(P)O(C)

#### NPN Output



#### PNP Output

