

## PR series - sensor

- Light on / Dark on selectable
- Attached sensitivity adjustment volume
- Protection structure IP66, circular structure
- Built in output cutoff over current protecting circuit



### · Suffix code

Model	Code				Information	
PR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Round type photosensor	
Sensing method and distance Sensing	T	10			10m	Through-beam
	M	1			1m	Through-beam
		2			2m	
	R	300			300mm	Diffuse-reflective
Output				N	NPN open collector output	
				P	PNP open collector output	
material				P	Plastic case	
				C	Brass case	

### · Specification

Sensing method		Through beam type		Diffuse reflection type		Diffuse reflection type	
Appearance							
Model	Brass case	PR-T10NC	PR-T10PC	PR-M1NC PR-M1PC	PR-M2NC PR-M2PC	PR-R300NC	PR-R300PC
	Plastic	PR-T10NP	PR-T10PP	PR-M1NP PR-M1PP	PR-M2NP PR-M2PP	PR-R300NP	PR-R300PP
Sensing Distance		10 m		1 m	2 m	300 mm	
Sensing Object		min Ø10 mm (opaque above)		min Ø25 mm (opaque above)		200 x 200 mm (white non-glossy paper)	
Hysteresis		-		-		Less than ±20 % of the sensing range	
Response Time		max 1.5 ms					
Power supply voltage		12 - 24 V DC ±10 %					
Current Consumption	Transmitter	Max. 15 mA		Max. 35 mA			
	Receiver	Max. 20 mA					

Light source (wave length)	Infrared lightening LED ( 850 nm)		
Adjusting Sensitivity	Built-in Adjusting Sensitivity Volume (but, Through-Beam has only in the receiver)		
Control Output	NPN Voltage Output, Loaded Voltage: below 30 V DC, Loaded Current:below Max. 200 mA, Residual Voltage:below 1 V		
Operation Mode	By control line, Light ON/ Dark ON / Selecting Mode Switching (but, Through-Beam has only in the receiver)		
Operation Indicator	Operation Indicator (Red LED), Stability Indicator (Green LED) (but, the transmitter (Red LED) of Through-Beam is Power Indicator)		
Protection Circuit	Built-in Protection Circuit from reversed power supply connection, Output Short-Circuit Overcurrent circuit protection		
Operating Ambient temp.	Operating: -10 ~ 60 °C, Storage: -25 ~ 70 °C (without freezing)		
Operating Ambient Humidity	35 - 85 % R.H.		
Operating Ambient Illumination	Sunlight: below 10000 Lux, Incandescent lamp: below 3000 Lux		
Protective structure	IP 66 (IEC)		
Vibration Resistance	10 ~ 55 Hz (cycle for 1 minute), double amplitude: 1.5 mm, in each direction X•Y•Z for 2 hours		
Shock Resistance	500 m/s <sup>2</sup> , 3 times each in X, Y and Z directions		
Dielectric Strength	500 V AC (at 50/60 Hz for 1 minute)		
Insulation Resistance	Above 20 MΩ (500 V DC)		
Connection Method	Code extended type 2 m, 4P (Emitter : 3P)		
Accessories	Individual	-	Reflector (Mirror 50 x 50)
	Common	Screw driver for adjusting sensitivity, nuts, washers (But, the nuts of Plastic Type are injection molding products. (except washers))	