

Data sheet

Sensing type	Through-beam type
Sensing distance	5mm
Sensing target	Opaque
Min. sensing target	$\geq \varnothing 0.8\text{mm} \times 2\text{mm}$
Hysteresis(distance)	$\leq 0.05\text{mm}$
Response time	Light ON: Max. $20\mu\text{s}$, Dark ON: Max. $100\mu\text{s}$
Response frequency	2kHz
Light source	Infrared LED(940nm)
Operation mode	Light ON/Dark ON(set by control wire)
Indicator	Operation indicator (red LED)
Weight_Body	Approx. 50g
Power voltage	5-24VDC --- $\pm 10\%$ (ripple P-P : max. 10%)
Load voltage	$\leq 30\text{VDC}$ ---
Load current	Max. 100mA
Residual voltage	NPN: $\leq 1.2\text{VDC}$ ---, PNP: $\leq 1.2\text{VDC}$ ---
Current consumption	Max. 30mA
Control output	NPN open collector output
Protection circuit	Reverse polarity protection circuit, output overcurrent (short-circuit) protection circuit
Insulation resistance	$\geq 20\text{ M}\Omega$ (250 VDC--- megger)
Noise immunity	The square wave noise (pulse width: $1\mu\text{s}$) by the noise simulator $\pm 240\text{VDC}$ ---
Dielectric strength	Between the charging part and the case: 1,000 VAC~ 50/60 Hz for 1 minute
Vibration	1.5mm amplitude (max. acceleration 196m/s^2) at frequency of 10 to 2,000Hz in each X, Y, Z direction for 2 hours
Shock	$15,000\text{ m/s}^2$ (approx. 1,500G) in each X, Y, Z direction for 3 times
Environment_Ambient illumination	Fluorescent lamp: Max. 1,000lx(received illumination)
Environment_Ambient temperature	-20 to 55°C , storage : -25 to 85°C
Environment_Ambient humidity	35 to 85% RH, storage: 35 to 85% RH
Protection structure	IP50 (IEC standard)
Connection	Cable type
Material	Case: PBT, Sensing part: PC