

## Long-distance Model with a Sensing distance of 50 mm.



**⚠** Be sure to read *Safety Precautions* on page 3.

### Ordering Information

Appearance	Sensing distance	Output configuration	Model
Column type (flat-surface mounting)	50 mm	3-wire DC (normally open)	<b>TL-LP50 1M</b>
		2-wire AC (normally open)	<b>TL-LY50 1M</b>

Note: Models with different frequencies are available. The model numbers are TL-L□50B.

### Ratings and Specifications

Item		Model	TL-LP50	TL-LY50
Sensing distance			50 mm±10%	
Set distance			0 to 40 mm	
Differential travel			10% max. of sensing distance	
Sensing object			Ferrous metals (The sensing distance decreases with non-ferrous metal. Refer to <i>Engineering Data</i> on the next page.)	
Standard sensing object			Iron, 100 × 100 × 1 mm	
Response time			15 ms max.	25 ms max.
Power supply voltage (operating voltage range *)			12 to 24 VDC (10 to 30 VDC), ripple (p-p) 10% max.	100 to 220 VAC (90 to 250 VAC), 50/60 Hz
Current consumption			10 mA max. (with no load)	---
Leakage current			---	Refer to <i>Engineering Data</i> on the next page.
Control output	Switching capacity		NPN open collector with a maximum current of 200 mA at 30 VDC	10 to 200 mA
	Residual voltage		3 V max. under a load current of 200 mA and a cable length of 2 m	Refer to <i>Engineering Data</i> on the next page.
Indicators			Operation indicator (red)	
Operation mode (with sensing object approaching)			NO. Refer to the timing charts under <i>I/O Circuit Diagrams</i> on page 3 for details.	
Ambient temperature			Operating/Storage: -25 to 70°C (with no icing or condensation)	
Ambient humidity			Operating/Storage: 35% to 95% (with no condensation)	
Temperature influence			±10% max. of sensing distance at 23°C in the temperature range of -25 to 70°C	
Voltage influence			±2% max. of sensing distance within a range of ±10% of rated power supply voltage	
Insulation resistance			50 MΩ min. (at 500 VDC) between current-carrying parts and case	
Dielectric strength			500 VAC (50/60 Hz) for 1min between current-carrying parts and case	2,000 VAC (50/60 Hz) for 1min between current-carrying parts and case
Vibration resistance (destruction)			10 to 55 Hz, 1.5-mm double amplitude for 2 hours each in X, Y, and Z directions	
Shock resistance (destruction)			1,000m/s <sup>2</sup> 10 times each in X, Y, and Z directions	
Degree of protection			IEC IP67	
Connection method			Pre-wired Models (Standard cable length: 1 m)	
Weight (packed state)			Approx. 1.4 kg	
Materials	Case		Die-cast aluminum	
	Sensing surface		Polyester	
Accessories			Instruction sheet	

\* Full-wave rectified power supplies with a mean output of 24 VDC ±10% are available for the TL-LP50.