

Flat type proximity sensor

- Applied exclusive I.C for C-MOS
- Wide range of power supply voltage
(5 – 35 V DC : DC 3 wire type)
- Internal noise enhanced circuit
- Applied the 2 wire type proximity none polarity
- Able to install at metal surface directly
Sensing distance 8 m, thickness 10.5 mm Flat type



F

Proximity
Sensor

Suffix code

Model	Code						Description
UP	25	F-	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Inductive type proximity sensor
Sensing area size	25						Please refer to the dimension (25 X 49 X 10 mm)
Structure type	F						Flat type
Sensing distance	8						8 mm
Power and output type		N					DC NPN output
		P					DC PNP output
		A					AC 2 wire type
		T					DC 2 wire type (Polarity)
		U					DC 2 wire type (Non polarity)
Output state		A					Normal Open (NO)
		C					Normal Close (NC)
Connection structure		*					No indication (Cable type)
		CR					Relay connector

●● Specification

Inductive DC 3 wire type/2 wire type

Model	DC 3 wire type		DC 2 wire type	
	NPN	UP25F-8N□□	Polarity	UP25F-8T□□
	PNP	UP25F-8P□□	Non polarity	UP25F-8U□□
Size	25 X 49 Flat type		25 X 49 Flat type	
Standard sensing object(mm)	Iron 25 X 25 X 1			
Sensing distance	8 mm			
Setting distance	0 ~ 6.4 mm			
Hysteresis	Less than 10 % of sensing distance			
Response frequency	200 Hz			
Power supply voltage	12 - 24 V DC (Usable voltage range 5 - 35 V DC)		12 - 24 V DC (Usable voltage range 10 - 30 V DC)	
Control output	Open/Close capacitance	200 mA max (Resistive load)		100 mA max (Resistive load)
	Residual voltage	Max 1.5V		Polarity : max 3.5 V, Non polarity : max 5 V
Current consumption	Max 6 mA		-	
Leakage current	-		max 1 mA	
Operation indication	Red LED			
Protective circuit	Power reversely connected protective circuit, Surge protective circuit and over current protective circuit are built in.			
Degree of protection	IP67 (IEC standard)			
Connection structure	Cable type (Standard cable length 2 m), Relay connector type			
Material	Case : PBT resin, Cable holder : Polyester elastomer			
Weight	Cable type	approx. 60g		approx. 60g
	Relay connector type	approx. 20g		approx. 20g

Inductive AC 2 wire type

Model		UP25F-8A□□
Standard sensing object(mm)		Iron 25 X 25 X 1
Sensing distance		8 mm
Setting distance		0 ~ 6.4 mm
Hysteresis		Less than 10% of sensing distance
Response frequency		20 Hz
Power supply voltage		100 - 240 V AC (Usable voltage range 90 - 250 V AC)
Control output	Open/Close capacitance	200 mA max (Resistive load)
	Residual voltage	Max 10 V AC
Leakage current		Max 2.2 mA
Operation indication		Red LED
Protective circuit		Surge protective circuit built in.
Degree of protection		IP67 (IEC standard)
Connection structure		Cable type (Standard cable length 2 m), Relay connector type
Material		Case : PBT resin, Cable holder : Polyester elastomer
Weight	Cable type	approx. 60g
	Relay connector type	approx. 20g

Environment

Ambient temperature	-25 ~ 70 °C (Less than ±10 % of sensing distance at temperature 20 °C)
Ambient humidity	35 ~ 85 % RH
Insulation resistance	min 50 M Ω (500 V DC mega standard)
Dielectric strength	For 1 min at 2000 V AC 50/60 Hz (between the recharging part and case)
Vibration resistance	10 - 55 Hz (cycle 1 min, Double amplitude : 1.5 mm 2 hours for each of X, Y and Z directions)
Shock resistance	500 $\%$ 3 times to each of X, Y and Z directions

F

Proximity
Sensor

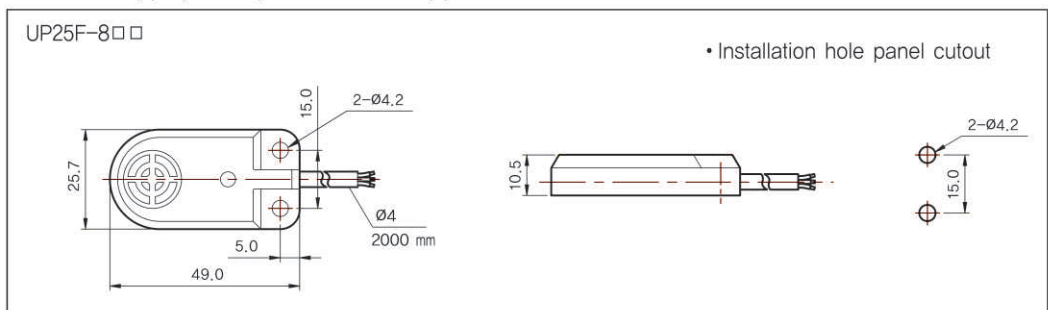
●● Connection diagram

Type	Connection method		Output state																									
	Cable type	Relay connector type																										
DC open / close	NPN			<table border="0"> <tr> <td>Sensing object</td> <td>Yes</td> <td>N.O</td> <td>N.C</td> </tr> <tr> <td></td> <td>No</td> <td></td> <td></td> </tr> <tr> <td>LOAD</td> <td>Run</td> <td></td> <td></td> </tr> <tr> <td>[Brown - Black]</td> <td>Return</td> <td></td> <td></td> </tr> <tr> <td>Operation indicator</td> <td>ON</td> <td></td> <td></td> </tr> <tr> <td></td> <td>OFF</td> <td></td> <td></td> </tr> </table>	Sensing object	Yes	N.O	N.C		No			LOAD	Run			[Brown - Black]	Return			Operation indicator	ON				OFF		
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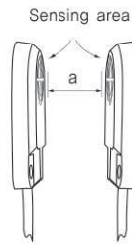
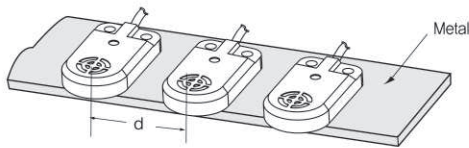
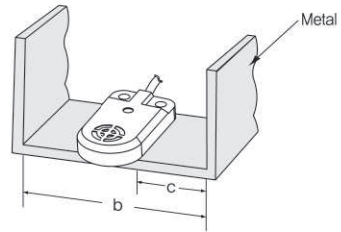
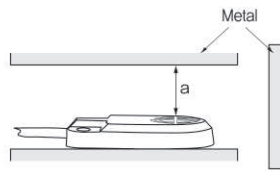
●● Dimension [unit : mm]

■ Cable type, Relay connector type



●● Important features

When attaching more than 1 proximity sensors in parallel direction or facing each other, it can cause the malfunction. When there are metals around the proximity sensor, it can cause malfunctions such as abnormal return due to the existence of metals around the proximity sensor. In order to avoid the malfunction which caused by surrounding metals, please install it with sufficient gap from each other. (Wider than the values written in below chart)



F
Proximity
Sensor

[unit : mm]

MODEL	a	b	c	d	e
LIST					
UP25F-8□□□	24	75	25	50	48