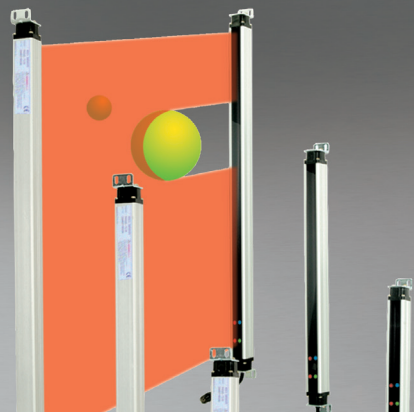


High reliable optical area sensor with an exclusive I.C.

PAN series



High reliable optical area sensor with an exclusive I.C.

- ▶ Various gap of optical axis
- ▶ Built in the mutual interference preventing function
- ▶ Built in the output break protecting circuit
- ▶ A, O operation mode selection
(When all optical axes/1 optical axis light on then ON)

➔ Suffix code

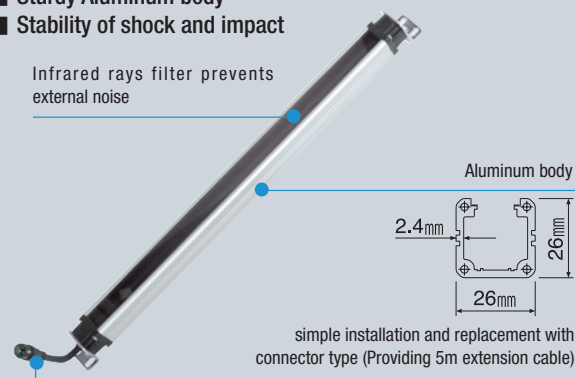
Model	Code	Description
PAN -	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Area sensor
Optical axis pitch	10	10 mm gap (coming soon)
	20	20 mm gap
	40	40 mm gap
Sensing method	T	Through Beam
Number of optical axis	16	Number of optical axis (please refer to the dimension)
Output	N	NPN open collector
	P	PNP open collector

➔ Specification

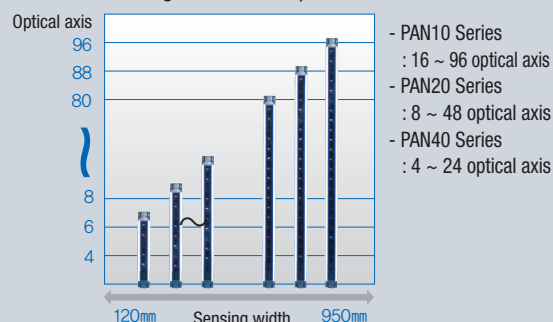
Model	NPN	PAN10-T <input type="checkbox"/> N	PAN20-T <input type="checkbox"/> N	PAN40-T <input type="checkbox"/> N
	PNP	PAN10-T <input type="checkbox"/> P	PAN20-T <input type="checkbox"/> P	PAN40-T <input type="checkbox"/> P
Sensing method	Through beam			
Sensing distance	2 m		7 m	
Sensing object	opaque object min Ø17 mm		opaque object min Ø32 mm	opaque object min Ø52 mm
Optical axis pitch	10 mm		20 mm	40 mm
Power supply voltage	12 - 24 V d.c ±10 % (Ripple less than 10 %)			
Current consumption	max 220 mA	max 170 mA	max 100 mA	
Response time	max 30 ms	max 15 ms	max 7 ms	
Weight	Approx 1400 g (Included the weight of box)	Approx. 1400 g (Included the weight of box)	Approx. 1400 g (Included the weight of box)	
Output	NPN/PNP open collector output , max 100 mA (30 V d.c) Inductive load : 50 mA, Remaining voltage : max 0.5 V d.c			
Operation mode	Transmitter : select the master/slave operation (mutually preventing interference function) Receiver : A mode (ON when all optical axis L.ON)/O mode (select ON when 1 optical axis L.ON)			
Light source (wave length)	Infrared LED (880 nm)			
LED	Transmitter : Power indicator(Green LED), M/S display(Red LED) Receiver : Light on stability display(Green LED), output Display(Red LED) E1 display(Red LED), E2 display(Blue LED)			
Protective circuit	Built in the reversed power supply connection protective circuit and output short protective circuit			
Ambient illumination	Sunlight : max 11,000 Lux, Incandescent lamp : max 3,000 Lux			
Ambient temperature	-10 ~ 55 °C (Surrounding storage temperature : -25 ~ 70 °C)			
Ambient humidity	35 ~ 85 % R.H. (With no condensation)			
Protective structure	IP 65 (IEC)			
Insulation resistance	min 20 MΩ (500 V d.c between the code and case)			
Dielectric strength	500 V a.c, 50/60 Hz for 1 min			
Vibration resistance	10 - 55 Hz, double amplitude : 1.5 mm, for 2 hours in X, Y and Z direction			
Shock resistance	500 ٪, 3 times each in X, Y and Z directions			
Connection method	Connector cord extended type, cord length : 200 mm, Applying code : 0.5 mm×4, Dimension : Ø5.5 mm connector			
Material	Case : aluminum, front cover and lens: acryl			

- Sturdy Aluminum body
- Stability of shock and impact

Infrared rays filter prevents external noise



- Various optical axis number (Maximum optical axis: 96 optical axes)
- Various sensing width (minimum sensing width 120mm to maximum sensing width 950mm)



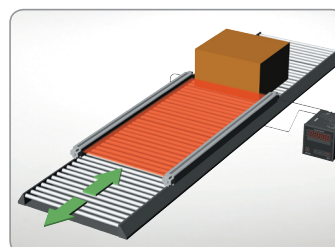
- 2 operation modes selection

- A operation mode: all optical axis sensing - output ON
- O operation mode: at least one axis sensing - output ON

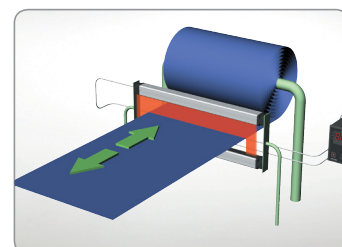


Example of using PAN series

➔ Automation device application



moving control with conveyer



defective detection