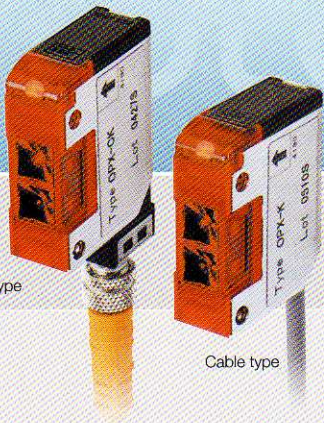


Photoelectric Sensor K series



M8 QD type

Cable type

Thru-beam type

(Sensing range : 7m)
• KT-700N / P / CN / CP

Retro-reflective type with polarizing filter

(Sensing range : 2.5m)
• KR-250N / P / CN / CP

Diffuse reflective type

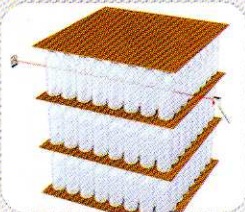
(Sensing range : 40cm)
• KD-40N / P / CN / CP

- **Ideal for the detection of Glass/PET products (KR-Q50 / KR-Q150 / KR-Q300)**
- **Test input to verify operation. (KT-700 Thru-beam type)**
- **IP67 rating, rugged design.**

Applications



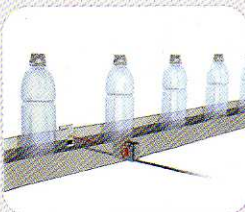
PET bottles moving on a conveyor



Pallet of PET bottles



Counting PET bottles

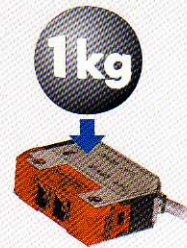


Sensing PET bottles through a narrow opening

Features

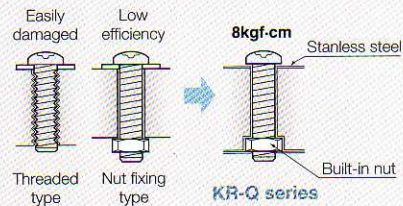
Stainless steel housing.

The stainless steel housing helps to protect the sensor against mechanical damage if it is struck by passing objects.



Built-in mounting nuts.

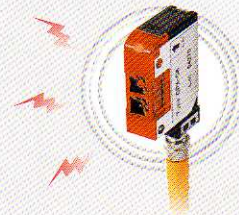
The built-in mounting nuts make installation easy and efficient, the problem of damaged threads due to over-tightening has been eliminated.



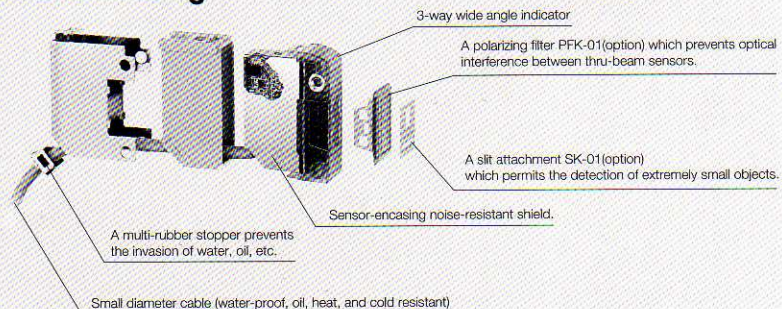
Surpasses the VDE standard for electrical noise immunity.

The noise resistant internal circuitry is designed in accordance with the strict VDE standard.

Further, in-house Feilen Noise testing assures high reliability and compliance with international standards.



Case and housing



Convergent type
(Sensing range : 1 - 9cm)
• KD-L09N / P / CN / CP

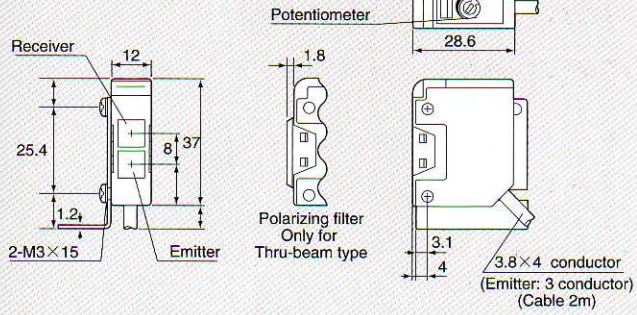
Transparent object detection type
(Sensing range : 3m)
• KR-Q300NW / PW / CNW / CPW

(Sensing range : 1.5m)
• KR-Q150NW / PW / CNW / CPW

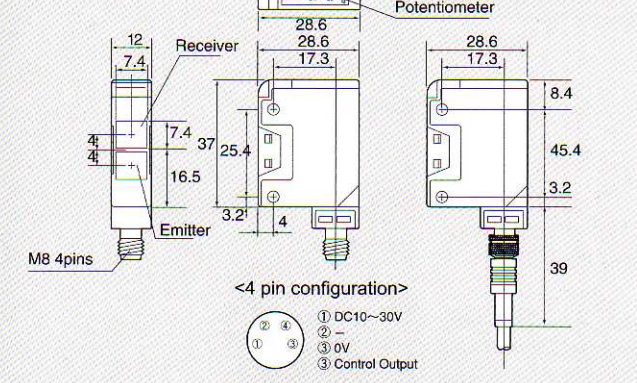
(Sensing range : 50cm)
• KR-Q50NW / PW / CNW / CPW

Dimensions

Cable type



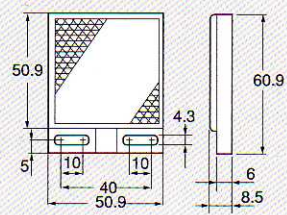
Connector type



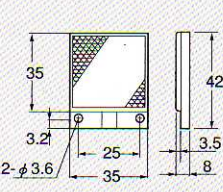
	Slit SK-01 (Emitter: 3 conductor)	Pot. type PKF-01	Slit + slit
Detection distance	1000mm	1000mm	500mm
Min. dia	φ 1mm	φ 7mm	φ 1mm

*Just peel the sticker off the backing and apply to the surface of the sensor.

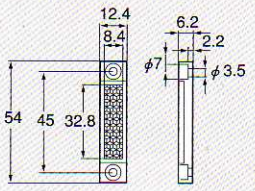
Standard reflector V-61



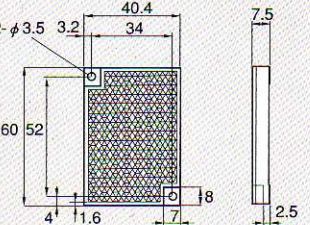
Small reflector V-42



Tiny reflector P-45



Anti-cloud reflector V-60K



(Unit : mm)

Options

Protective mounting bracket

JCN-S : M8 Straight type
JCN-S : 2 meter
JCN-5S : 5 meter
JCN-10S : 10 meter

LK-S01

PKF-01 : Filter

JCN-L : L-shape M8 type
JCN-L : 2 meter
JCN-5L : 5 meter
JCN-10L : 10 meter

LK-S02

SK-01 : Slit

Specifications

Model	Thru-beam	Retro-reflective with separating Filter	Diffuse reflective	Convergent	Glass sensing
Cable type	NPN KT-700N PNP KT-700P	KR-250N KR-250P	KD-40N KD-40P	KD-L09N KD-L09P	KR-Q50NW KR-Q150PW KR-Q300PW
Connector type	NPN KT-700CN PNP KT-700CP	KR-250CN KR-250CP	KD-40CN KD-40CP	KD-L09CN KD-L09CP	KR-Q50CNW KR-Q150CPW KR-Q300CPW
Sensing range	7 m	2.5 m	40 cm	1 - 9 cm	50 cm 1.5 m 3 m
Light source	Red				
Min detectable object	φ 7mm	—	φ 40mm	—	φ 2.5mm (steel wire)
Response time	1msec Max		0.7msec Max	—	
Hysteresis	NIL				
Sensitivity adjustment	Not equipped		Single turn potentiometer		
Indicator	Single Indicator				
Control output	NPN or PNP Open collector, 100mA Max / 30V DC				
Test input	Equipped		Not equipped		
Operating mode	Light ON / Dark ON selectable				
Insulation resistance	Min. 20 M Ohm / DC500V				
Supply voltage	10 to 30 V DC including 10% of ripple				
Power consumption	35mA Max		30mA Max		
Conformity	JIS, UL, CE, VDE				
Ambient Temp / Humid	-25 to +55°C / 35 to 85%RH				
Environmental illuminance	Sun Light:20,000 lux max. Incandescent lamp:4,000 lux max.				
Vibration resistance	10 50 55 Hz amplitude 1.5mm, X-Y-Z for 2 hours				
Protection category	IEC 144 IP67, VDE Level 3				
Material	ABS (Case), PC (Lens), SUS304 (Cover)				
Weight (Net)	25g (20g for emitter of thru-beam type)				25g