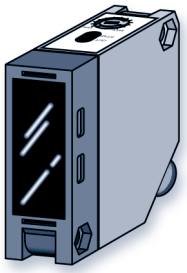


Thru Beam Photoelectric Sensors

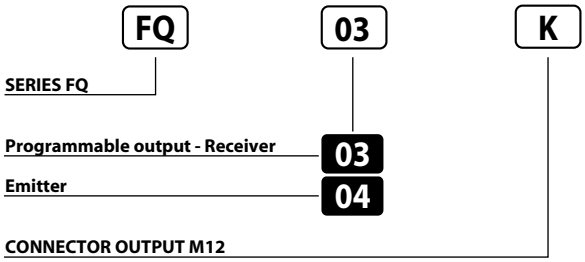
PHOTOELECTRIC SENSORS IN SQUARE HOUSING 12 ÷ 30 V DC PROGRAMMABLE OUTPUT

- ***Compact size, output and stability indicators***
- ***Cost effective***
- ***Cable or M12 quick connect models***
- ***Fast response time: 5 mS***

FQ Series

under subscription LISTED

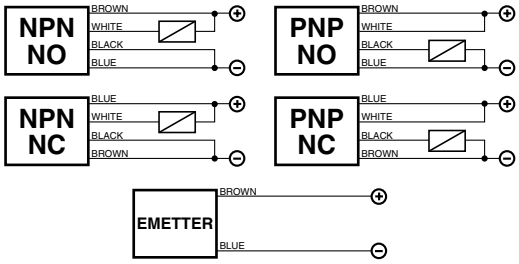
Identification code



AVAILABLE	RECEIVER	EMITTER
SWITCHING DISTANCE (+/- 20%)	**20 m**	
HYSTERESIS	10%	
EMISSION	-	Infrared (875 ηm)
NOMINAL VOLTAGE	12 ÷ 30VDC (-15 /+10%)	
RESIDUAL RIPPLE	≤ 10%	
OUTPUT	NPN or PNP (programmable)	-
CONTACT	NO or NC (programmable)	-
MAX. OUTPUT CURRENT	200 mA	-
ABSORPTION AT 30 VDC	25 mA	
VOLTAGE DROP (Sensor ON)	≤ 1.8 V (I = 100 mA)	-
YELLOW LED	Output indicator	-
GREEN LED	Stability indicator	Supply indicator
SENSITIVITY ADJUSTEMENT	Trimmer 1 turn	-
SWITCHING FREQUENCY	200 Hz	
RESPONSE TIME	5 mS	
START UP DELAY	100 mS	
SHORT CIRCUIT PROTECTION	Present (self-resetting)	
ELECTRIC PROTECTIONS	Againts polarity reversal - inductive loads	
TEMPERATURE LIMITS	-10 ÷ +60 °C	
LIGHT IMMUNITY	> 10.000 Lux (1)	
PROTECTION DEGREE	IP 65	
CABLE LENGTH	2 m	
CABLE SECTION	4 x 0.25 mm²	2 x 0.25 mm²
HOUSING MATERIAL	Housing: ABS - Lenses: methacrylate	
WEIGHT - cable output - (connector output)	- 160 g - (120 g)	

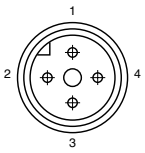
(1) Determined with halogen tungsten lamp 3000° K.
Note: for a proper use see norms at pages 7, 8, 9 and 10.

Wiring diagrams



Note: For series or parallel connections see notes at page 7.

Connection with connector M12 (K)



CONTACTS CONFIGURATION

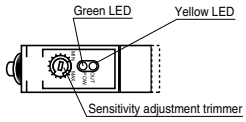
Output	Contacts numbers			
	1	2	3	4
NPN NO	+	NO	–	–
NPN NC	–	NC	+	–
PNP NO	+	+	–	NO
PNP NC	–	+	+	NC
Emitter	+		–	

View of quadripole male connector.
Note: Photoelectric sensor not suitable for use with 90° connectors.

Sensitivity adjustment

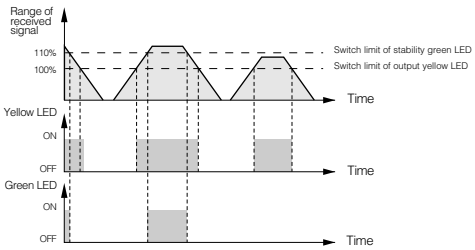
1) SENSITIVITY INCREASE
Screw the trimmer towards right towards position "+"

2) SENSITIVITY DECREASE
Screw the trimmer towards left towards position "–"



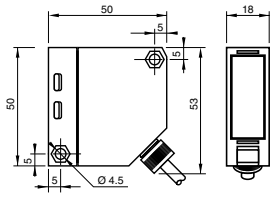
Note: the trimmer just needs one turn.

Stability signal led



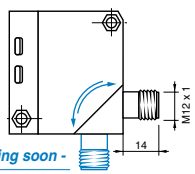
The stability signal LED shows the range of received signal and helps the photoelectric sensor to line up.
A photoelectric sensor works in "stability" condition when the received light signal range is 10% ahead the switching limit of output.

Dimensions (mm)



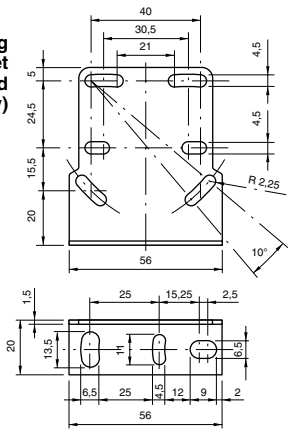
Configuration with cable

Configuration with connector K



Rotating connector - coming soon -

Mounting bracket (supplied accessory)



Characteristic curves