

Retro Ref. Photoelectric Sensors



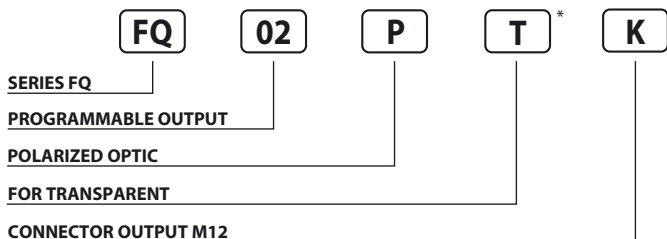
PHOTOELECTRIC SENSORS IN SQUARE HOUSING 12 ÷ 30V DC PROGRAMMABLE OUTPUT

- Compact size, output and stability indicators
- Cost effective
- Cable or M12 quick connect models
- Fast response time: 5 mS / 200 Hz
- For transparent

FQ Series



Identification code



* Available only with P option

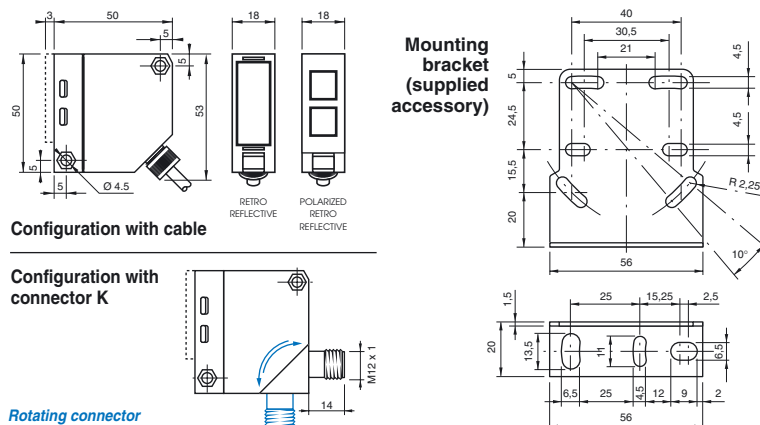
AVAILABLE	POLARIZED	POLARIZED FOR TRANSPARENT	STANDARD
NOMINAL SWITCHING DISTANCE (Sn)	6 m ⁽¹⁾	0,05...2m ⁽¹⁾	13 m ⁽¹⁾
TOLERANCE	+10/-10 %Sn		
HYSTERESIS	10%		
EMISSION	Red (660 nm)	Infrared (875 nm)	
NOMINAL VOLTAGE	12 ÷ 30VDC (-15 /+10%)		
RESIDUAL RIPPLE	≤ 10%		
OUTPUT	NPN or PNP (programmable)		
CONTACT	NO or NC (programmable)		
MAX. OUTPUT CURRENT	200 mA		
ABSORPTION AT 30 VDC	40 mA		
VOLTAGE DROP (Sensor ON)	≤ 1.8 V (I = 100 mA)		
YELLOW LED	Output indicator		
GREEN LED	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	Against polarity reversal - inductive loads		
TEMPERATURE LIMITS	-10 ÷ +60 °C		
LIGHT IMMUNITY	> 10.000 Lux ⁽²⁾		
PROTECTION DEGREE	IP 65		
CABLE LENGTH	2 m		
CABLE SECTION	4 x 0.25 mm ²		
HOUSING MATERIAL	Housing: ABS - Lenses: methacrylate		
WEIGHT - cable output - (connector output)	- 160 g - (120 g)		

⁽¹⁾ Determined with CT04S reflector.

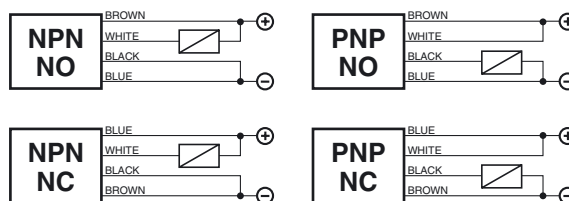
⁽²⁾ Determined with halogen tungsten lamp 3000° K.

Note: for a proper use see norms at pages 14, 15, 16, 17 and 18.

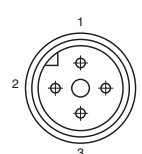
Dimensions (mm)



Wiring diagrams



Connection with connector M12 (K)



CONTACTS CONFIGURATION

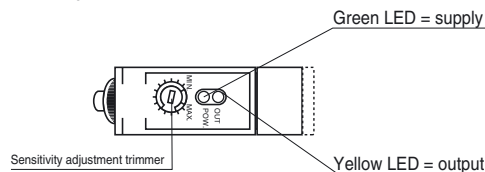
Output	Contacts numbers			
	1	2	3	4
NPN NO	+	NO	-	-
NPN NC	-	NC	+	-
PNP NO	+	+	-	NO
PNP NC	-	+	+	NC
Emitter	+	-	-	-

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.

Characteristic curves

