

Background Suppression Photoelectric Sensors



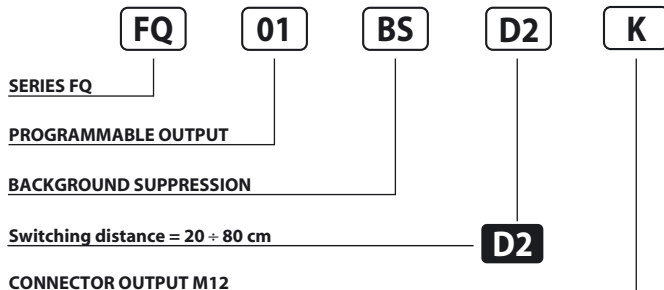
PHOTOELECTRIC SENSORS IN SQUARE HOUSING 12 ÷ 30 V DC NPN/PNP OUTPUT

- Compact size, output and supply indicators
- Insensitive to colours
- Cable or M12 quick connect models
- Fast response time: 2 mS ON/OFF

FQ Series



Identification code



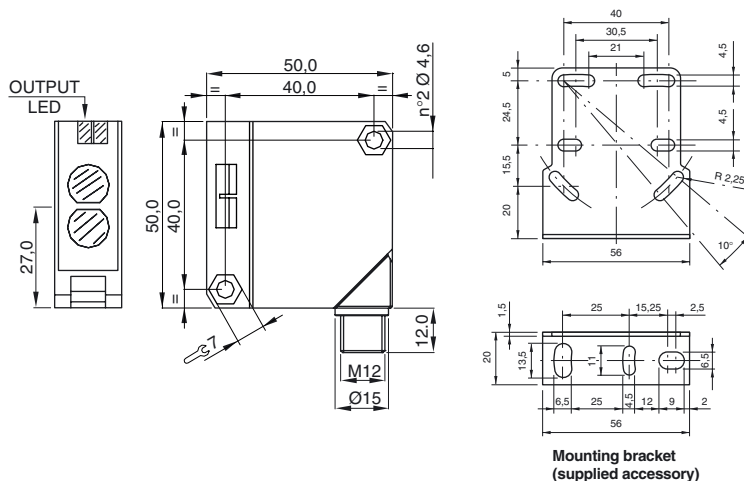
AVAILABLE	D2
NOMINAL SWITCHING DISTANCE (Sn)	20 ÷ 80 cm ⁽¹⁾
TOLERANCE	+10/-10 %Sn
HYSTERESIS	10%
EMISSION	Infrared (875 nm)
NOMINAL VOLTAGE	12 ÷ 30VDC (-15 /+10%)
RESIDUAL RIPPLE	≤ 10%
OUTPUT	NPN or PNP
CONTACT	NO+NC
MAX. OUTPUT CURRENT	200 mA
ABSORPTION AT 30 VDC	30 mA
VOLTAGE DROP (Sensor ON)	≤ 1.5 V (I = 100 mA)
YELLOW LED	Output indicator
GREEN LED	Stability indicator
SENSITIVITY ADJUSTMENT	Trimmer 1 turn
SWITCHING FREQUENCY	500 Hz
RESPONSE TIME	2 mS
START UP DELAY	100 mS
SHORT CIRCUIT PROTECTION	Present (self-resetting)
ELECTRIC PROTECTIONS	Againts polarity reversal - inductive loads
TEMPERATURE LIMITS	-25 ÷ +55 °C
LIGHT IMMUNITY	> 10.000 Lux ⁽²⁾
PROTECTION DEGREE	IP 65
HOUSING MATERIAL	Housing: ABS - Lenses: methacrylate
WEIGHT (connector output)	120 g

⁽¹⁾ Determined with a white mat paper (cm 10 x 10).

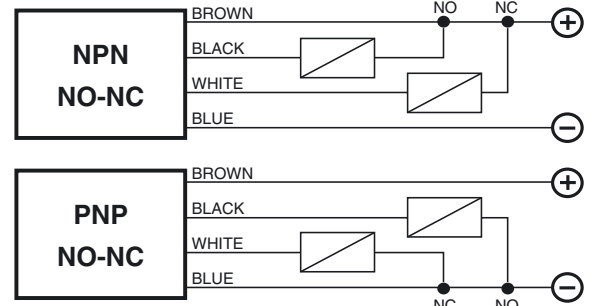
⁽²⁾ Determined with halogen tungsten lamp 3000° K.

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

Dimensions (mm)

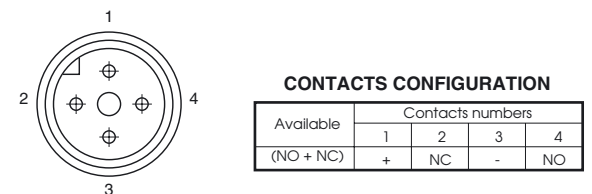


Wiring diagrams



Connection with connector M12 (K)

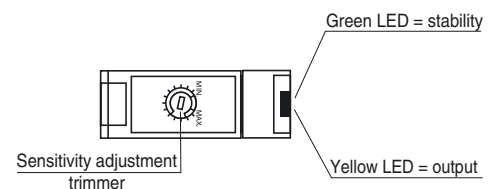
View of quadripole male connector



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

