

Retro Ref. Photoelectric Sensors

SINCERT

PHOTOELECTRIC SENSORS IN SQUARE HOUSING 14 ÷ 230 V AC/DC RELAY OUTPUT

- · Wide input voltage
- 3A relay SPDT
- · Cable or M12 quick connect models
- Output and Supply indicators

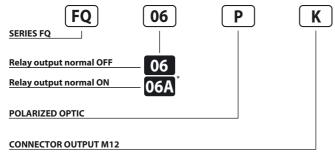
FQ Series







Identification code



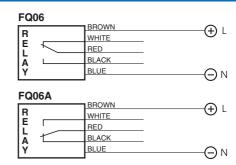
^{*} This version is made with NORMALLY ACTIVATED RELAY when the photocell is aligned with the reflector.

| NOMINAL SWITCHING DISTANCE (Sn) 6 m (¹) 13 m (¹) TOLERANCE +10/-10 %Sn HYSTERESIS 10% EMISSION Red (660 ηm) Infrared (875 ηm) NOMINAL VOLTAGE 14 ÷ 230V AC - DC (-15 /+10%) MAINS FREQUENCY 50 ÷ 60 Hz OUTPUT Relay (10 x 10° ops. min.) MAX. OUTPUT CURRENT 3A 30 V AC - 1A 220 V AC (90W, 360 VA) ABSORPTION 2.5 VA YELLOW LED Output indicator GREEN LED Supply indicator SENSITIVITY ADJUSTEMENT Trimmer 1 turn SWITCHING FREQUENCY 10 Hz RESPONSE TIME 100 mS START UP DELAY ≤ 300 mS TEMPERATURE LIMITS -10 ÷ +60° C LIGHT IMMUNITY > 10.000 Lux (²) PROTECTION DEGREE IP 65 CABLE LENGTH 2 m CABLE SECTION 5 x 0.30 mm² HOUISING MATERIAL Housing ABS, Lapses methacrystate | AVAILABLE | POLARIZED | STANDARD | |
|--|--|--|-------------------------------|--|
| HYSTERESIS 10% EMISSION Red (660 ηm) Infrared (875 ηm) NOMINAL VOLTAGE 14 ÷ 230V AC - DC (-15 /+10%) MAINS FREQUENCY 50 ÷ 60 Hz OUTPUT Relay (10 x 106 ops. min.) MAX. OUTPUT CURRENT 3A 30 V AC - 1A 220 V AC (90W, 360 VA) ABSORPTION 2.5 VA YELLOW LED Output indicator GREEN LED Supply indicator SENSITIVITY ADJUSTEMENT Trimmer 1 turn SWITCHING FREQUENCY 10 Hz RESPONSE TIME 100 mS START UP DELAY ≤ 300 mS TEMPERATURE LIMITS -10 ÷ +60° C LIGHT IMMUNITY > 10.000 Lux (2) PROTECTION DEGREE IP 65 CABLE LENGTH 2 m CABLE SECTION 5 x 0.30 mm² | NOMINAL SWITCHING DISTANCE (Sn) | 6 m ⁽¹⁾ | 13 m ⁽¹⁾ | |
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| START UP DELAY ≤ 300 mS TEMPERATURE LIMITS -10 ÷ +60° C LIGHT IMMUNITY > 10.000 Lux (2) PROTECTION DEGREE IP 65 CABLE LENGTH 2 m CABLE SECTION 5 x 0.30 mm² | SWITCHING FREQUENCY | 10 Hz | | |
| TEMPERATURE LIMITS -10 ÷ +60° C LIGHT IMMUNITY > 10.000 Lux (²) PROTECTION DEGREE IP 65 CABLE LENGTH 2 m CABLE SECTION 5 x 0.30 mm² | RESPONSE TIME | 100 mS | | |
| LIGHT IMMUNITY > 10.000 Lux (2) PROTECTION DEGREE IP 65 CABLE LENGTH 2 m CABLE SECTION 5 x 0.30 mm² | START UP DELAY | ≤ 300 mS | | |
| PROTECTION DEGREE IP 65 CABLE LENGTH 2 m CABLE SECTION 5 x 0.30 mm² | TEMPERATURE LIMITS | -10 ÷ +60° C | | |
| CABLE LENGTH 2 m CABLE SECTION 5 x 0.30 mm² | LIGHT IMMUNITY | > 10.000 Lux ⁽²⁾ | | |
| CABLE SECTION 5 x 0.30 mm ² | PROTECTION DEGREE | IP 65 | | |
| <u> </u> | CABLE LENGTH | 2 m | | |
| HOUSING MATERIAL Housing: ARS - Lansas; methocrylate | CABLE SECTION | 5 x 0.30 mm ² | | |
| HOUSING MATERIAL HOUSING, ADS - Lenses: Methodylate | HOUSING MATERIAL | Housing: ABS - Lenses: methacrylate | | |
| WEIGHT - cable output - (connector output) - 180 g - (125 g) | WEIGHT - cable output - (connector output) | - 180 g - (125 g) | | |

⁽¹⁾ Determined with CT04S reflector.

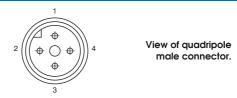
Note: for a proper use see norms at pages 12, 13, 14, 15 and 16.

Wiring diagrams



Note: in case of inductive loads it is necessary to connect one diode in antiparallel at the edges of the load.

Connection with connector M12 (K)



CONTACTS CONFIGURATION

| | Output | Contacts numbers | | | |
|--|-------------|------------------|-------|------|-------|
| | | 1 | 2 | 3 | 4 |
| | Relay | L | COM | N | NO |
| | Wire colors | brown | white | blue | black |

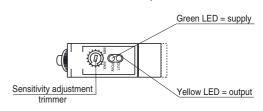
Note: Photoelectric sensor not suitable for use with 90° connectors.

Sensitivity adjustment

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

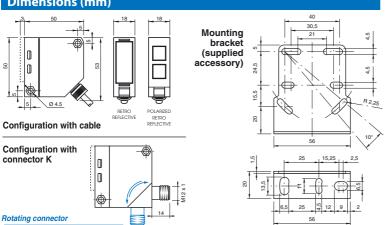
2) SENSITIVITY DECREASE

Screw the trimmer towards left towards position "-"

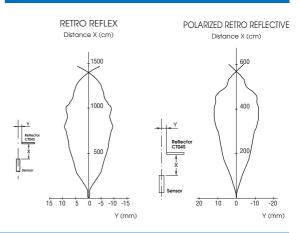


Note: the trimmer just needs one turn.

Dimensions (mm)



Characteristic curves



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