

Diffuse Ref. Photoelectric Sensors





PHOTOELECTRIC SENSORS IN METAL HOUSING 12 ÷ 30 V DC NPN O PNP OUTPUT

- Miniature 18 mm tubular
- Operation LED visible laterally and at the back
- · Cable or M12 quick connect models
- Long working distances
- Fast response time: 2 mS / 500 Hz

18 Series

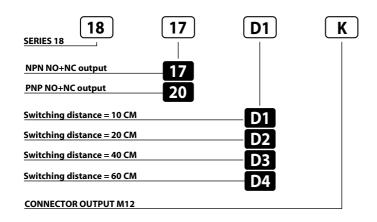








Identification code

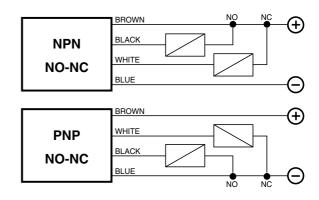


| AVAILABLE | D1 | D2 | D3 | D4 | | |
|--|---|----------------------|----------------------|----------------------|--|--|
| SWITCHING DISTANCE | 10 cm ⁽¹⁾ | 20 cm ⁽¹⁾ | 40 cm ⁽¹⁾ | 60 cm ⁽²⁾ | | |
| HYSTERESIS | | 10% | | | | |
| EMISSION | Infrared (875 ηm) | | | | | |
| NOMINAL VOLTAGE | 12 ÷ 30VDC (-15 /+10%) | | | | | |
| RESIDUAL RIPPLE | ≤ 10% | | | | | |
| MAX. OUTPUT CURRENT | 200 mA | | | | | |
| ABSORPTION AT 30 VDC | 40 mA | | | | | |
| VOLTAGE DROP (Sensor ON) | ≤ 1.5V (I = 200 mA) | | | | | |
| OPERATION LED | Yellow | | | | | |
| 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 | -10 ÷ +60 °C | | | | | |
| LIGHT IMMUNITY | > 10.000 Lux ⁽³⁾ | | | | | |
| PROTECTION DEGREE | IP 67 | | | | | |
| CABLE LENGTH | 2 m | | | | | |
| CABLE SECTION | 3 x 0.25 mm ² | | | | | |
| HOUSING MATERIAL | Housing: nickel-plated brass - Lenses: methacrylate | | | | | |
| WEIGHT - cable output - (connector output) | - 110 g - (55 g) | | | | | |

 $^{^{(1)}}$ Determined with a white mat paper (cm 10 x 10).

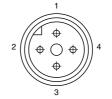
Note: for a proper use see norms at pages 7, 8, 9 and 10.

Wiring diagrams



Connection with connector M12 (K)

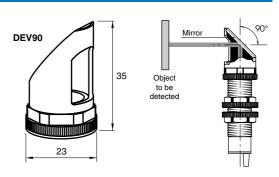
View of quadripole male connector.



CONTACTS CONFIGURATION

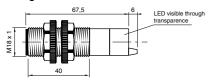
| | Available | Contacts numbers | | | | | |
|--|-----------|------------------|----|---|----|--|--|
| | | 1 | 2 | 3 | 4 | | |
| | (NO + NC) | + | NC | - | NO | | |

Accessories

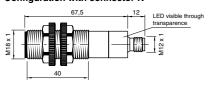


Dimensions (mm)

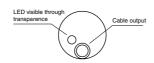
Configuration with cable



Configuration with connector K



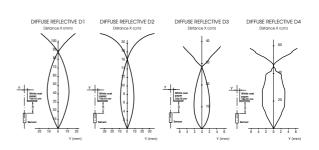
Configuration with cable - Back view



Configuration with connector K Back view



Characteristic curves



⁽²⁾ Determined with a white mat paper (cm 20 x 20).

 $^{^{(3)}}$ Determined with halogen tungsten lamp 3000 $^{\circ}\text{K}.$