



# Diffuse Ref. Photoelectric Sensors



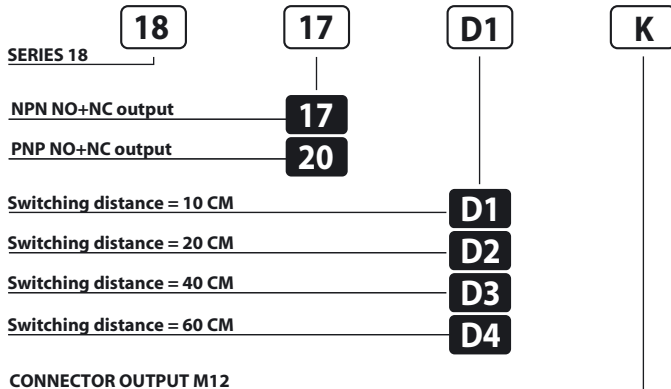
PHOTOELECTRIC SENSORS IN METAL HOUSING 12 ÷ 30 V DC NPN O PNP OUTPUT

- **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**

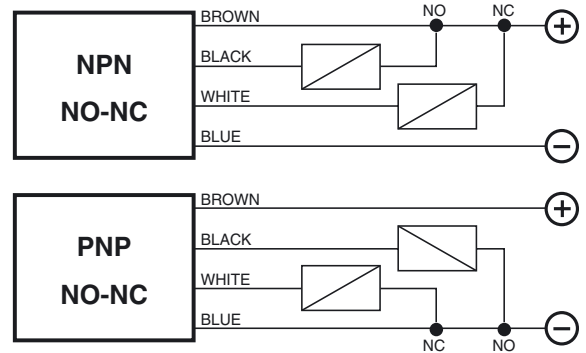
## 18 Series



### Identification code



### Wiring diagrams



AVAILABLE	D1	D2	D3	D4
NOMINAL SWITCHING DISTANCE (Sn)	10 cm <sup>(1)</sup>	20 cm <sup>(1)</sup>	40 cm <sup>(1)</sup>	60 cm <sup>(2)</sup>
TOLERANCE	+10/-10 %Sn			
HYSTERESIS	10%			
EMISSION	Infrared (875 nm)			
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	Against polarity reversal - inductive loads			
TEMPERATURE LIMITS	-10 ÷ +60 °C			
LIGHT IMMUNITY	> 10.000 Lux <sup>(3)</sup>			
PROTECTION DEGREE	IP 67			
CABLE LENGTH	2 m			
CABLE SECTION	3 x 0.25 mm <sup>2</sup>			
HOUSING MATERIAL	Housing: nickel-plated brass - Lenses: methacrylate			
WEIGHT - cable output - (connector output)	- 110 g - (55 g)			

<sup>(1)</sup> Determined with a white mat paper (cm 10 x 10).

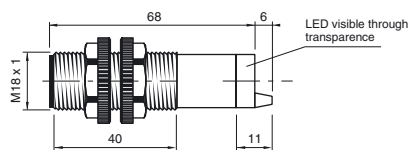
<sup>(2)</sup> Determined with a white mat paper (cm 20 x 20).

<sup>(3)</sup> Determined with halogen tungsten lamp 3000 °K.

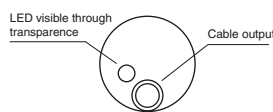
Note: for a proper use see norms at pages 14, 15, 16, 17 and 18.

### Dimensions (mm)

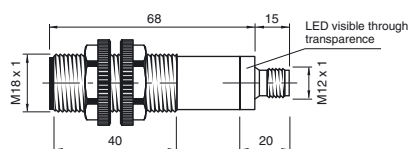
#### Configuration with cable



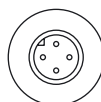
#### Configuration with cable - Back view



#### Configuration with connector K

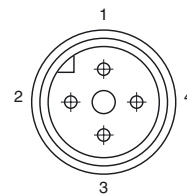


#### Configuration with connector K Back view



### Connection with connector M12 (K)

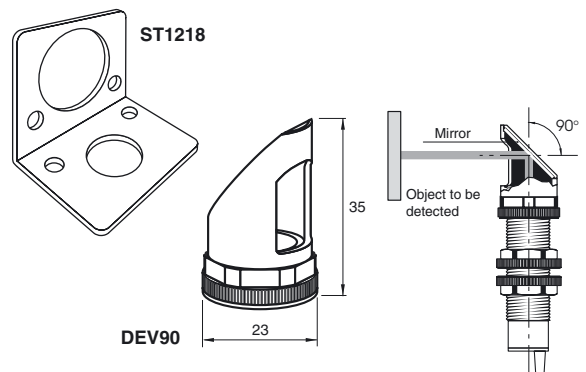
View of quadriple male connector.



#### CONTACTS CONFIGURATION

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

### Accessories



### Characteristic curves

