

PHOTOELECTRIC SENSORS

DIFFUSE REFLECTIVE

12÷30 V DC - NPN OR PNP OUTPUT

- 18 mm tubular in metal housing
- Operation LED visible laterally and at the back
- Cable or M12 quick connect models
- Long working distances
- Fast response time: 1 ms / 500 Hz

18 Series

IDENTIFICATION CODE

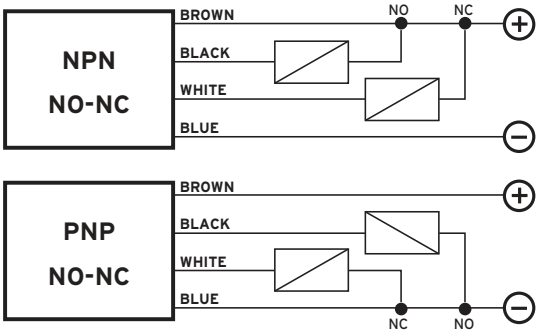
18	17	D1	K

- SERIES ISM
- NPN NO+NC - Shielded: 17
- PNP NO+NC - Not shielded: 20
- Switching distance = 10 Cm: D1
- Switching distance = 20 Cm: D2
- Switching distance = 40 Cm: D3
- Switching distance = 60 Cm: D4
- CONNECTOR OUTPUT M12

AVAILABLE	D1	D2	D3	D4
NOMINAL SWITCHING DISTANCE (Sn)	**10 cm** (1)	**20 cm** (1)	**40 cm** (1)	**60 cm** (2)
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	1 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 mm²			
HOUSING MATERIAL	Housing: nickel-plated brass - Lenses: methacrylate			
WEIGHT - cable output - (connector output)	- 110 g - (55 g)			

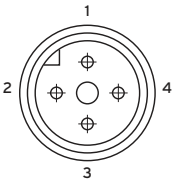
(1) Determined with a white mat paper (cm 10 x 10).
(2) Determined with a white mat paper (cm 20 x 20).
(3) Determined with halogen tungsten lamp 3000 °K.
Note: for a proper use see norms at pages 18, 19, 20, 21 and 22.

WIRING DIAGRAMS



CONNECTION WITH CONNECTOR M12 (K)

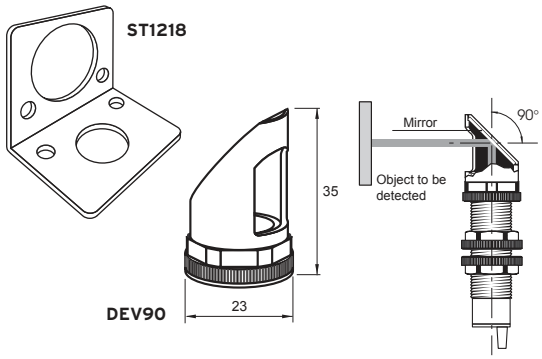
View of quadripole male connector.



CONTACTS CONFIGURATION

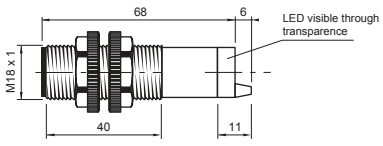
Available	Contacts numbers			
	1	2	3	4
(NO + NC)	+	NC	-	NO

TIMING DIAGRAMS

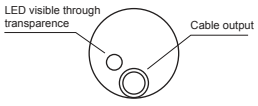


DIMENSIONS (mm)

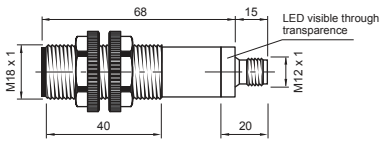
Configuration with cable



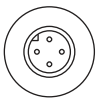
Configuration with cable - Back view



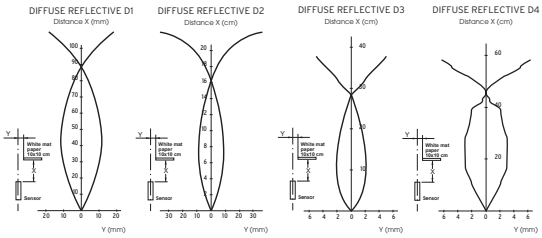
Configuration with connector K



Configuration with connector K Back view



CHARACTERISTIC CURVES



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