

Diffuse Ref. Photoelectric Sensors



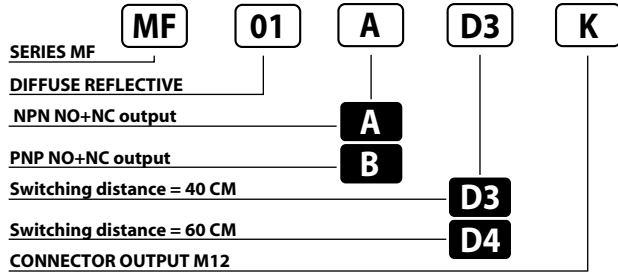
PHOTOELECTRIC SENSORS IN METAL HOUSING 12 ÷ 30 V DC NPN / PNP OUTPUT

- Programmable output, NPN or PNP, NC + NO
- Simple one-turn sensitivity
- Cable or M12 quick connect models
- Fast response time: 2 mS / 500 Hz
- Long working distances

MF Series



Identification code



AVAILABLE	D3	D4
SWITCHING DISTANCE	40 cm ⁽¹⁾	60 cm ⁽²⁾
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)	≤ 1,5 V (I = 100 mA)	
STATUS LED	Yellow	
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	Against 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	4 x 0.25 mm ²	
HOUSING MATERIAL	Housing: nickel-plated brass - Lenses: methacrylate	
WEIGHT - cable output - (connector output)	- 130 g - (70 g)	

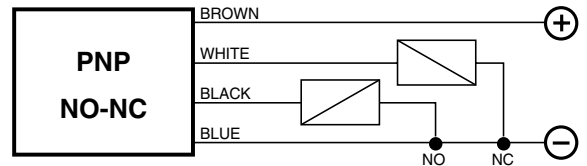
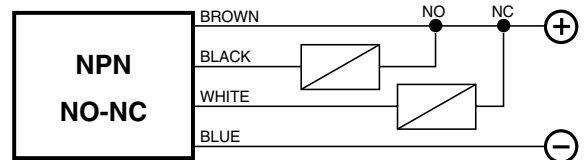
⁽¹⁾ Determined with a white mat paper (cm 10 x 10).

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

⁽³⁾ Determined with halogen tungsten lamp 3000 °K.

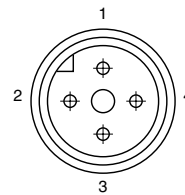
Note: for a proper use see norms at pages 7, 8, 9 and 10.

Wiring diagrams



Connection with connector M12 (K)

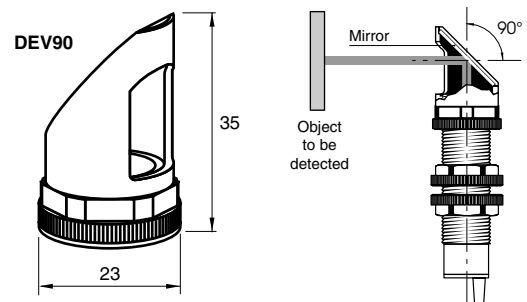
View of quadripole male connector



CONTACTS CONFIGURATION

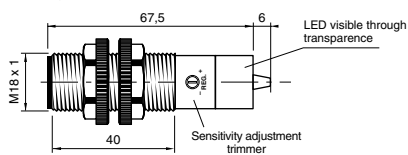
Available (NO + NC)	Contacts numbers			
	1	2	3	4
+	NC	-	NO	

Accessories



Dimensions (mm)

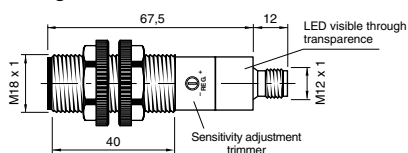
Configuration with cable



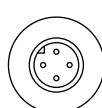
Configuration with cable - Back view



Configuration with connector K



Configuration with connector K Back view



Note: the trimmer just needs one turn.

Characteristic curves

