



# Retro Ref. Photoelectric Sensors



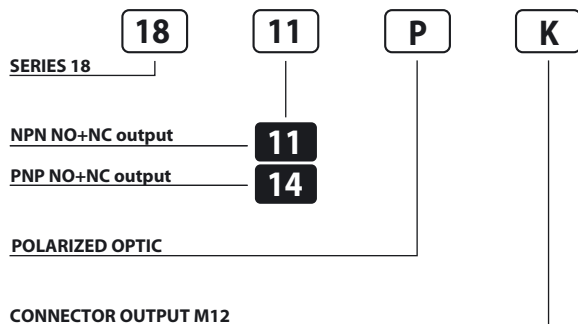
PHOTOELECTRIC SENSORS IN METAL HOUSING 12 ÷ 30 V DC NPN OR PNP OUTPUT

- **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**

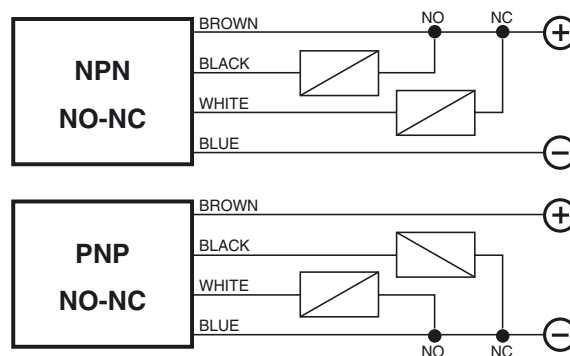
**18 Series**



## Identification code



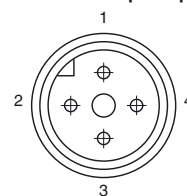
## Wiring diagrams



AVAILABLE	POLARIZED	STANDARD
NOMINAL SWITCHING DISTANCE (Sn)	<b>2 m<sup>(1)</sup></b>	<b>6 m<sup>(1)</sup></b>
TOLERANCE	+10/-10 %Sn	
HYSTERESIS	10%	
EMISSION	Red (660 nm)	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	200 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>(2)</sup>	
PROTECTION DEGREE	IP 67	
CABLE LENGTH	2 m	
CABLE SECTION	3 x 0.25 mm <sup>2</sup>	
HOUSING MATERIAL	Nickel-plated brass	
WEIGHT - cable output - (connector output)	- 110 g - (55 g)	

## Connection with connector M12 (K)

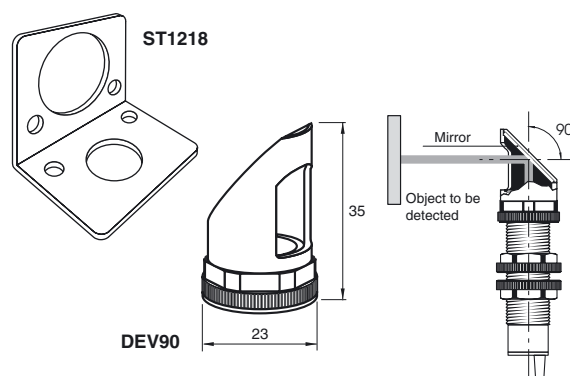
View of quadripole male connector.



### CONTACTS CONFIGURATION

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

## Accessories



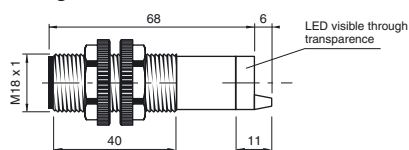
<sup>(1)</sup> Determined with CT04S reflector.

<sup>(2)</sup> Determined with halogen tungsten lamp 3000 °K.

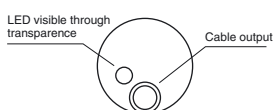
Note: for a proper use see norms at pages 12, 13, 14, 15 and 16.

## Dimensions (mm)

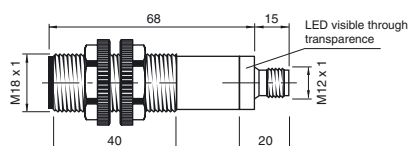
### Configuration with cable



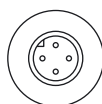
### Configuration with cable - Back view



### Configuration with connector K

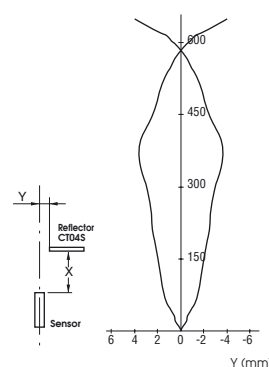


### Configuration with connector K Back view



## Characteristic curves

### RETRO REFLECTIVE Distance X (cm)



### POLARIZED RETRO REFLECTIVE Distance X (cm)

