



# Background Suppression Photoelectric Sensors



PH. SENSORS IN RECTANGULAR HOUSING 12 ÷ 30 V DC PROGRAMMABLE OUTPUT

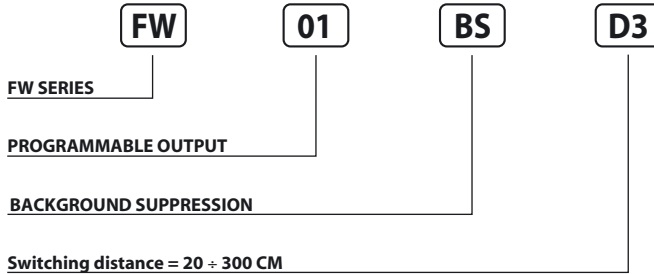
- **Switching distance: 300 cm**
- **Detecting black targets on white background**
- **Insensitive to colours**
- **Programmable output**
- **Conduit wiring terminal block**

**FW Series**

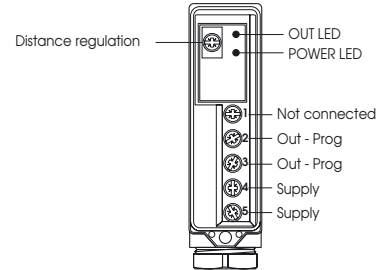
**New**



## Identification code



## Wiring diagrams



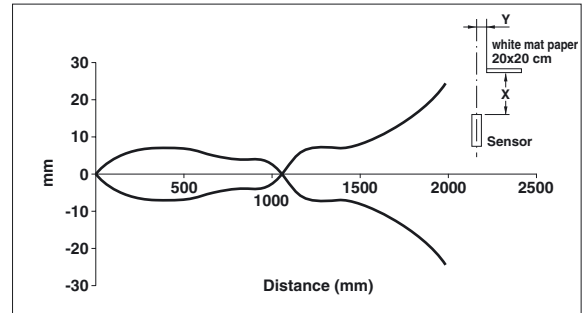
AVAILABLE	D3
NOMINAL SWITCHING DISTANCE (Sn)	Background Suppression <b>2 m</b> <sup>(1)</sup> / On White Target <b>3 m</b> <sup>(1)</sup>
TOLERANCE	+10/-10 %Sn
HYSTERESIS	< 5%
EMISSION	880 nm
NOMINAL VOLTAGE	12 ÷ 30VDC (-15 /+10%)
NET FREQUENCY	≤ 10%
OUTPUT	NPN o PNP (programmable)
CONTACT	NO o NC (programmable)
MAX OUTPUT CURRENT	200 mA
ABSORPTION	25 ÷ 40 mA
VOLTAGE DROP	≤ 1.8 VDC
YELLOW LED	Output indicator
GREEN LED	Stability indicator
SWITCHING FREQUENCY	500 Hz
RESPONSE TIME	100 mS
SHORT CIRCUIT PROTECTION	Present (self-resetting)
ELECTRICAL PROTECTION	Againts polarity reversal - inductive loads
TEMPERATURE LIMITS	-10 ÷ +60 °C
LIGHT IMMUNITY	> 10.000 Lux <sup>(2)</sup>
PROTECTION DEGREE	IP 66
CONNECTIONS	Screw
CABLE GUIDE	PG 13.5
HOUSING MATERIAL	Housing: ABS - Lenses: methacrylate
WEIGHT (Approximately)	110 g

## Connection table

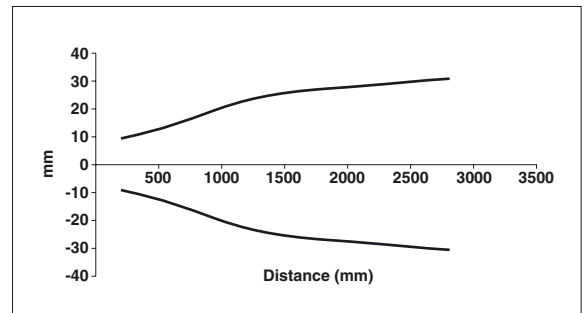
Output	Contacts numbers			
	2	3	4	5
NPN NO	NO	-	+	-
NPN NC	NC	-	-	+
PNP NO	+	NO	+	-
PNP NC	+	NC	-	+

## Characteristic curves

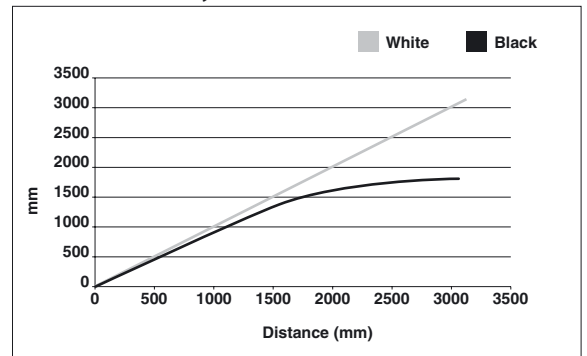
### Emission curve



### Emission cone



### Chromatic sensitivity

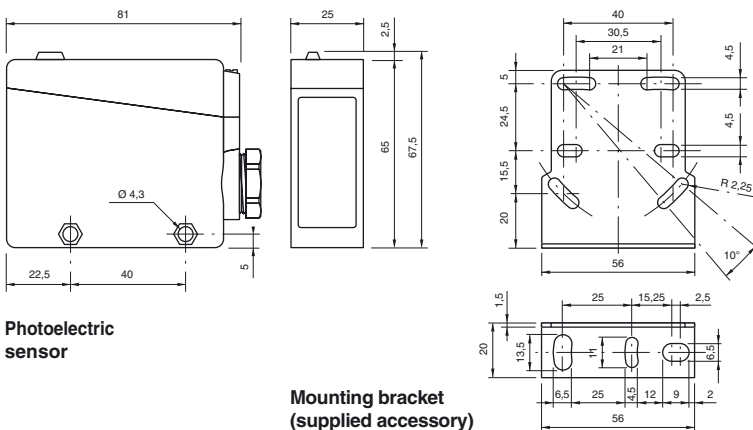


<sup>(1)</sup> Determined with a white mat paper (cm 20 x 20).

<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)



Photoelectric sensor

Mounting bracket (supplied accessory)