Retro Ref. Photoelectric Sensors
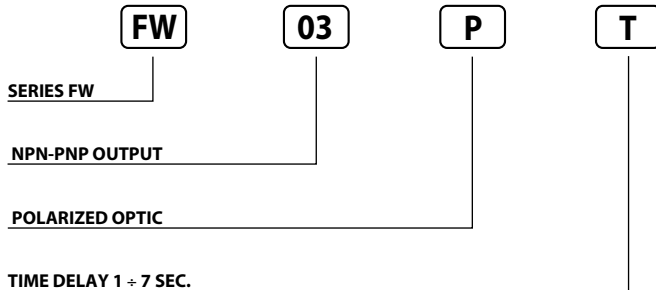
INFRA ELECTRONIC SENSORS

ISO 9002 SGS SINCERT

PHOTOELECTRIC SENSORS IN RECTANGULAR HOUSING 12 ÷ 30 V DC WITH TIMER PROGRAMMABLE OUTPUT

- *Rectangle compact size*
- *Multi-function timer*
- *ON/OFF delay*
- *One shot-four functions*
- *NPN or PNP programmable outputs*
- *Conduit wiring terminal block*

FW Series
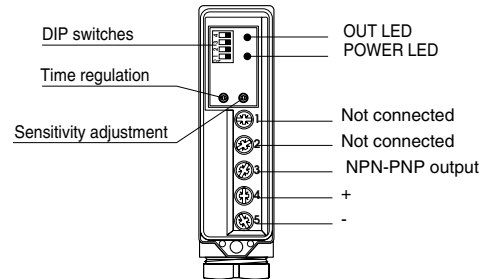
New
under subscription — c UL us LISTED — CE — WARRANTY 2 YEARS

Identification code

| FW | 03 | P | T |

- SERIES FW
- NPN-PNP OUTPUT
- POLARIZED OPTIC
- TIME DELAY 1 ÷ 7 SEC.

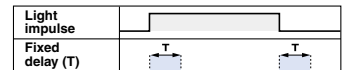| AVAILABLE	POLARIZED	STANDARD
SWITCHING DISTANCE	**6 m** [1]	**10 m** [1]
HYSTERESIS	10%	
EMISSION	Red (660 ηm)	Infrared (875 ηm)
NOMINAL VOLTAGE	12 ÷ 30VDC (-15 /+10%)	
RESIDUAL RIPPLE	≤ 10%	
OUTPUT	NPN or PNP (programmable)	
MAX OUTPUT CURRENT	200 mA	
ABSORPTION	≤ 40 mA	
VOLTAGE DECREASE	≤ 2.5 VDC	
YELLOW LED	Light on indicator	
GREEN LED	Supply indicator	
SENSITIVITY ADJUSTEMENT	Trimmer 1 turn	
TIME REGULATION	0.1 ÷ 7 s ± 2 s (only models with timer)	
SWITCHING FREQUENCY	200 Hz	
RESPONSE TIME	5 mS	
START UP DELAY	≤ 300 mS	
PROTECTION AGAINTS SHORT-CIRCUIT	Present (self-resetting)	
TEMPERATURE LIMITS	-10° ÷ +60°C	
LIGHT IMMUNITY	10.000 Lux [2]	
PROTECTION DEGREE	IP 67	
CONNECTIONS	Screw	
CABLE GUIDE	PG 13.5	
HOUSING MATERIAL	Housing: ABS - Lenses: methacrylate	
WEIGHT (Approximately)	110 g	

[1] Determined with CT04S reflector.
[2] Determined with halogen tungsten lamp 3000° K.
Note: for a proper use see norms at pages 7, 8, 9 and 10.

Dimensions (mm)

Photoelectric sensor

Mounting bracket (supplied accessory)

Wiring diagrams

DIP switches — OUT LED / POWER LED
Time regulation
Sensitivity adjustment
1 Not connected
2 Not connected
3 NPN-PNP output
4 +
5 -

Timing diagrams

Light impulse
Fixed delay (T)
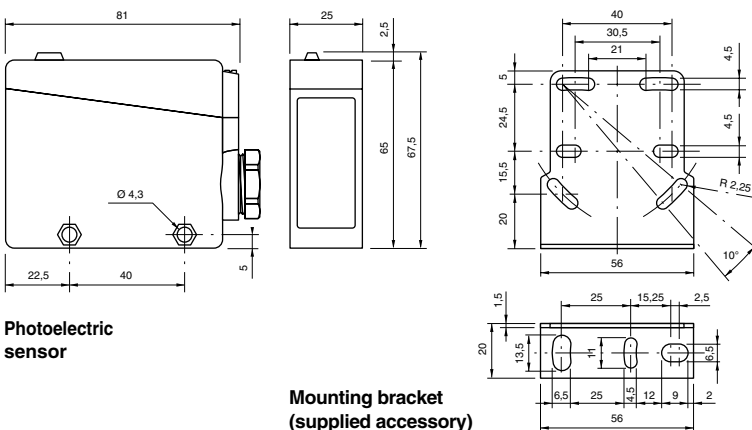
NO.	FUNCTION	DIP SWITCHES		OUTPUT DIAGRAM
ALL MODELS				
1	Muting	1 2 3 4 ON/OFF	PNP = NO	
			NPN = NO	
MODELS WITHOUT TIMER				
1	Normally ON PNP	1 2 3 4 ON/OFF	PNP = NC	
			NPN = NO	
2	Normally ON NPN	1 2 3 4 ON/OFF	PNP = NO	
			NPN = NC	
MODELS WITH TIMER				
1	Delay on operate output ON	1 2 3 4 ON/OFF	PNP = NC	
			NPN = NO	
2		1 2 3 4 ON/OFF	PNP = NO	
			NPN = NC	
3	Delay on operate output OFF	1 2 3 4 ON/OFF	PNP = NC	
			NPN = NO	
4		1 2 3 4 ON/OFF	PNP = NO	
			NPN = NC	
1	One shot trailing edge output ON	1 2 3 4 ON/OFF	PNP = NC	
			NPN = NO	
2		1 2 3 4 ON/OFF	PNP = NO	
			NPN = NC	
3	One shot trailing edge output OFF	1 2 3 4 ON/OFF	PNP = NC	
			NPN = NO	
4		1 2 3 4 ON/OFF	PNP = NO	
			NPN = NC	

Characteristic curves

RETRO REFLECTIVE
Distance X (cm)
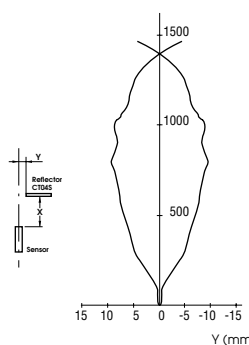
POLARIZED RETRO REFLECTIVE
Distance X (cm)