

Retro Ref. Photoelectric Sensors

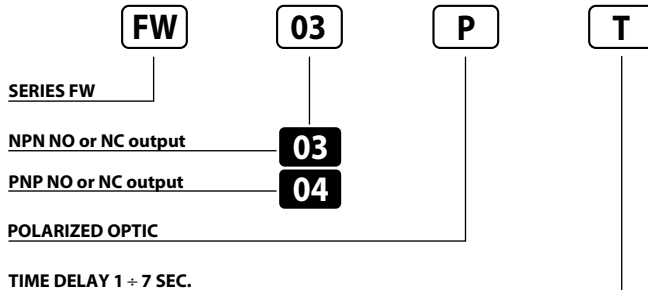
PHOTOELECTRIC SENSORS IN RECTANGULAR HOUSING 12 ÷ 30 V DC WITH TIMER NPN OR PNP OUTPUT

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

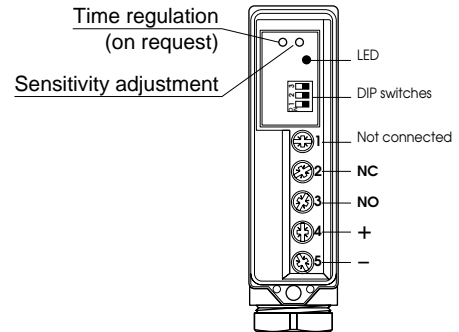
FW Series



Identification code



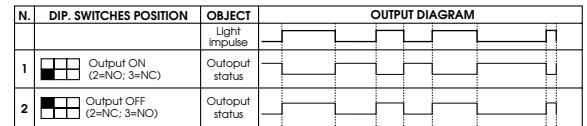
Wiring diagrams



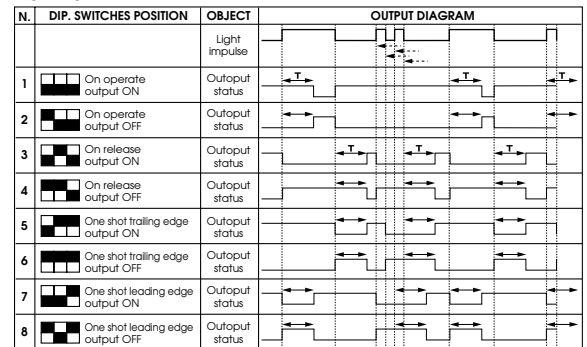
AVAILABLE	POLARIZED	STANDARD
SWITCHING DISTANCE	6 m ⁽¹⁾	10 m ⁽¹⁾
HYSTERESIS	10%	
EMISSION	Red (660 nm)	Infrared (875 nm)
NOMINAL VOLTAGE	12 ÷ 30VDC (-15 / +10%)	
RESIDUAL RIPPLE	≤ 10%	
OUTPUT	NPN or PNP	
MAX OUTPUT CURRENT	200 mA	
ABSORPTION	≤ 40 mA	
VOLTAGE DECREASE	≤ 2.5 VDC	
YELLOW LED	Present	
SENSITIVITY ADJUSTEMENT	-	
TIME REGULATION	0.1 ÷ 7 s ± 2 s (only models with timer)	
SWITCHING FREQUENCY	100 Hz	
RESPONSE TIME	10 ms	
START UP DELAY	≤ 300 ms	
PROTECTION AGAINTS SHORT-CIRCUIT	Present (self-resetting)	
TEMPERATURE LIMITS	-25° ÷ +55°C	
LIGHT IMMUNITY	5.000 Lux ⁽²⁾	
PROTECTION DEGREE	IP 67	
CONNECTIONS	Screw	
CABLE GUIDE	PG 13.5	
HOUSING MATERIAL	Polycarbonate	
WEIGHT (Approximately)	110 g	

Timing diagrams

MODELS WITHOUT TIMER



MODELS WITH TIMER

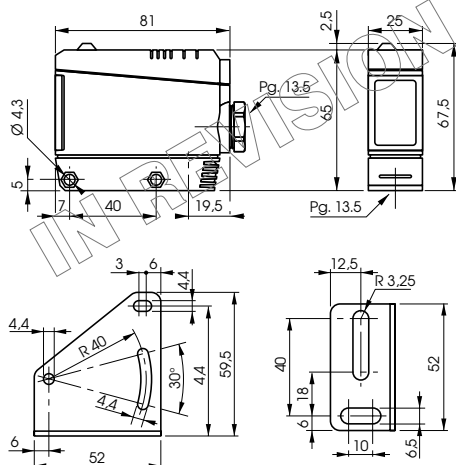


⁽¹⁾ Determined with CT04 reflector.

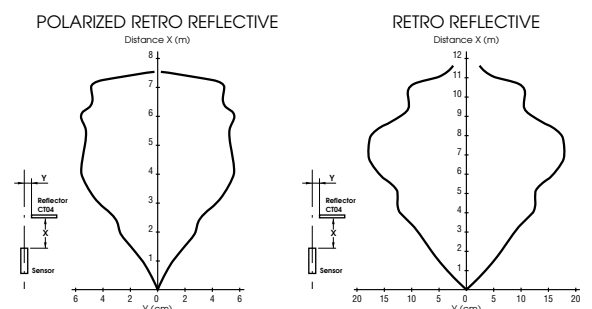
⁽²⁾ Determined with halogen tungsten lamp 3000° K.

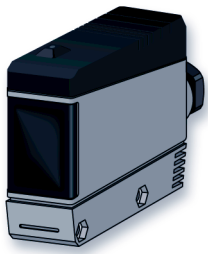
Note: for a proper use see norms at pages 6, 7 and 8.

Dimensions (mm)



Characteristic curves





Retro Ref. Photoelectric Sensors

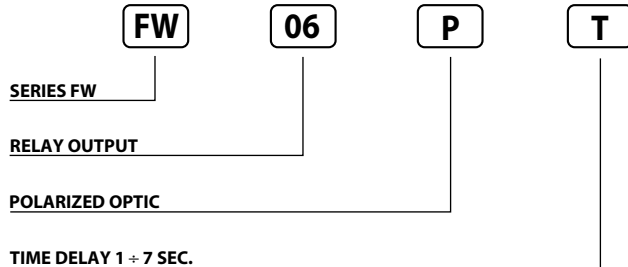
PH. SENSORS IN RECTANGULAR HOUSING 12 ÷ 240 V DC 24 ÷ 240 V AC WITH TIMER RELAY OUTPUT

- **Wide range World Wide Power Supply**
- **Rectangular compact size**
- **Multi-function timer:**
 - ON/OFF delay
 - One shot-four functions
 - 3A relay SPDT
 - Terminal block wiring

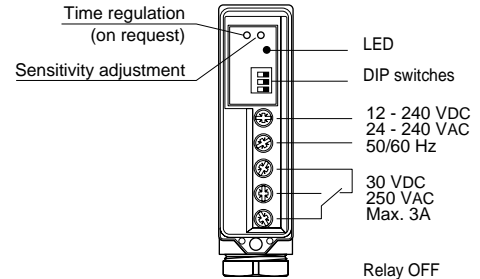
FW Series



Identification code



Wiring diagrams



AVAILABLE	POLARIZED	STANDARD
SWITCHING DISTANCE	6 m⁽¹⁾	10 m⁽¹⁾
HYSTERESIS	10%	
EMISSION	Red (660 nm)	Infrared (875 nm)
NOMINAL VOLTAGE	12 ÷ 240VDC / 24 ÷ 240 VAC (-15 ÷ +10%)	
NET FREQUENCY	45 ÷ 60 Hz	
OUTPUT	Relay (40 x 10 ⁶ mec. op. - 5 x 10 ⁶ elect. op.)	
MAX OUTPUT CURRENT	3A 250VAC - 3A 30VDC	
ABSORPTION	≤ 2W (2.5 VA)	
YELLOW LED	Present	
GREEN LED	-	
SENSITIVITY ADJUSTMENT	-	
TIME REGULATION	0.1 ÷ 7 s ± 2 s (only models with timer)	
SWITCHING FREQUENCY	20 Hz	
RESPONSE TIME	50 ms	
START UP DELAY	≤ 300 ms	
TEMPERATURE LIMITS	-25° ÷ +55°C	
LIGHT IMMUNITY	5.000 Lux ⁽²⁾	
PROTECTION DEGREE	IP 67	
CONNECTIONS	Screw	
CABLE GUIDE	PG 13.5	
HOUSING MATERIAL	Polycarbonate	
WEIGHT (Approximately)	110 g	

Timing diagrams

MODELS WITHOUT TIMER

N.	DIP. SWITCHES POSITION	OBJECT	OUTPUT DIAGRAM
1	Output ON (2=NO; 3=NC)	Output status	[Diagram showing output ON when object is present]
2	Output OFF (2=NC; 3=NO)	Output status	[Diagram showing output OFF when object is present]

MODELS WITH TIMER

N.	DIP. SWITCHES POSITION	OBJECT	OUTPUT DIAGRAM
		Light impulse	[Diagram showing light impulse]
1	On operate output ON	Output status	[Diagram showing output ON with delay T after light impulse]
2	On operate output OFF	Output status	[Diagram showing output OFF with delay T after light impulse]
3	On release output ON	Output status	[Diagram showing output ON with delay T after light impulse ends]
4	On release output OFF	Output status	[Diagram showing output OFF with delay T after light impulse ends]
5	One shot trailing edge output ON	Output status	[Diagram showing one shot output ON at trailing edge]
6	One shot trailing edge output OFF	Output status	[Diagram showing one shot output OFF at trailing edge]
7	One shot leading edge output ON	Output status	[Diagram showing one shot output ON at leading edge]
8	One shot leading edge output OFF	Output status	[Diagram showing one shot output OFF at leading edge]

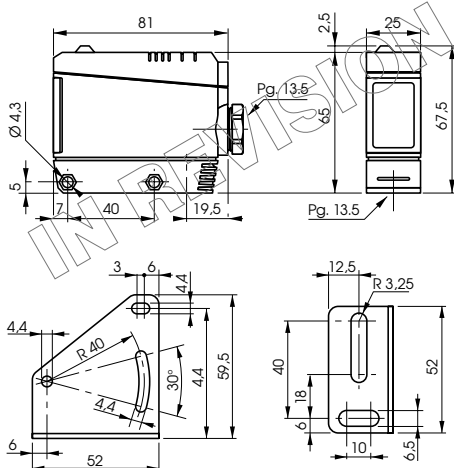
T = Fixed delay

⁽¹⁾ Determined with CT04 reflector.

⁽²⁾ Determined with halogen tungsten lamp 3000° K.

Note: for a proper use see norms at pages 6, 7 and 8.

Dimensions (mm)



Characteristic curves

