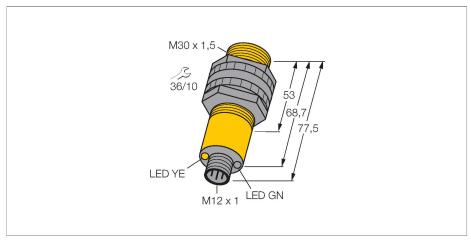


# S30SP6REQ Photoelectric Sensor – Opposed Mode Sensor (Receiver)



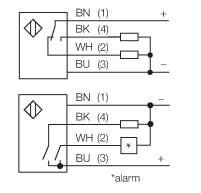
#### Technical data

ID no.   3037087	Туре	S30SP6REQ	
Function Opposed mode sensor (receiver) Range 060000 mm  Electrical data Operating voltage 1030 VDC  No-load current ≤ 25 mA Short-circuit protection yes / Cyclic Reverse polarity protection Connection programmable, PNP Switching frequency ≤ 160 Hz Readiness delay ≤ 100 ms Response time typical <3 ms Overcurrent release > 220 mA  Mechanical data Design Threaded barrel, S30 Dimensions Ø 30 x 77.5 mm Housing material Plastic, PBT Lens plastic, Lexan Electrical connection Connectors, M12 x 1, PVC Number of cores 4 Ambient temperature -40+70 °C Protection class IP69 Special features Wash down Power-on indication LED, Green	ID no.	3037087	
Range 060000 mm  Electrical data  Operating voltage 1030 VDC  No-load current ≤ 25 mA  Short-circuit protection yes / Cyclic  Reverse polarity protection yes  Output function Connection programmable, PNP  Switching frequency ≤ 160 Hz  Readiness delay ≤ 100 ms  Response time typical <3 ms  Overcurrent release > 220 mA  Mechanical data  Design Threaded barrel, S30  Dimensions Ø 30 x 77.5 mm  Housing material Plastic, PBT  Lens plastic, Lexan  Electrical connection Connectors, M12 x 1, PVC  Number of cores 4  Ambient temperature -40+70 °C  Protection class IP69  Special features Wash down  Power-on indication LED, Green	Optical data		
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Operating voltage       1030 VDC         No-load current       ≤ 25 mA         Short-circuit protection       yes / Cyclic         Reverse polarity protection       yes         Output function       Connection programmable, PNP         Switching frequency       ≤ 160 Hz         Readiness delay       ≤ 100 ms         Response time typical       < 3 ms	Range	060000 mm	
No-load current       ≤ 25 mA         Short-circuit protection       yes / Cyclic         Reverse polarity protection       yes         Output function       Connection programmable, PNP         Switching frequency       ≤ 160 Hz         Readiness delay       ≤ 100 ms         Response time typical       < 3 ms	Electrical data		
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Reverse polarity protection       yes         Output function       Connection programmable, PNP         Switching frequency       ≤ 160 Hz         Readiness delay       ≤ 100 ms         Response time typical       < 3 ms	No-load current	≤ 25 mA	
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Switching frequency ≤ 160 Hz   Readiness delay ≤ 100 ms   Response time typical < 3 ms	Reverse polarity protection	yes	
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Housing material  Lens  plastic, PBT  plastic, Lexan  Electrical connection  Connectors, M12 × 1, PVC  Number of cores  4  Ambient temperature  -40+70 °C  Protection class  IP69  Special features  Wash down  Power-on indication  LED, Green	Design	Threaded barrel, S30	
Lens plastic, Lexan  Electrical connection Connectors, M12 × 1, PVC  Number of cores 4  Ambient temperature -40+70 °C  Protection class IP69  Special features Wash down  Power-on indication LED, Green	Dimensions	Ø 30 x 77.5 mm	
Electrical connection  Connectors, M12 × 1, PVC  Number of cores  4  Ambient temperature  -40+70 °C  Protection class  IP69  Special features  Wash down  Power-on indication  LED, Green	Housing material	Plastic, PBT	
Number of cores 4  Ambient temperature -40+70 °C  Protection class IP69  Special features Wash down  Power-on indication LED, Green	Lens	plastic, Lexan	
Ambient temperature -40+70 °C  Protection class IP69  Special features Wash down  Power-on indication LED, Green	Electrical connection	Connectors, M12 × 1, PVC	
Protection class IP69 Special features Wash down Power-on indication LED, Green	Number of cores	4	
Special features Wash down Power-on indication LED, Green	Ambient temperature	-40+70 °C	
Power-on indication LED, Green	Protection class	IP69	
,	Special features	Wash down	
Switching state LED, Yellow	Power-on indication	LED, Green	
	Switching state	LED, Yellow	

#### **Features**

- ■M12 × 1 male connector, 4-pin
- Protection classes IP67/IP69K
- ■Ambient temperature: -40 °C...+70 °C
- Selectable light/dark operation or light operation with alarm function
- Operating voltage: 10...30 VDC
- ■PNP switching output, changeover

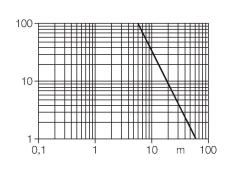
### Wiring diagram



## Functional principle

Opposed mode sensors consist of an emitter and receiver. They are installed opposite each other so that the light from the emitter is aimed directly at the receiver. When an object interrupts or weakens the light beam, the sensor switches. Opposed mode sensors are the most reliable photoelectric sensors for detection of opaque targets. An excellent contrast between light and dark conditions and an extremly high excess gain are typical of this sensing mode, thus allowing operation over larger distances and under difficult conditions. Excess gain curve

Excess gain in relation to the distance

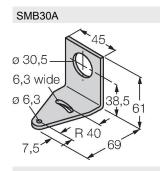




## Technical data

Error indication	LED, green, Flashing		
Excess gain indication	LED		
Alarm display	LED yellow Flashing		
Tests/approvals			
Approvals	CE, UL, CSA		

#### Accessories



3032723 Mounting bracket, rectangular, stainless steel, for sensors with 30mm thread

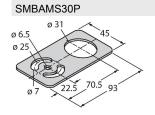


3011185 Mounting bracket, stainless steel, for M10 x 1.5 thread, thread length 30



Mounting bracket, PBT black, for sensors with 30 mm thread, rotatable

3052521



Mounting bracket, stainless steel, for sensors with 30 mm thread

3073135

## Accessories

Dimension drawing	Type	ID no.	
M12 x 1 o 15	RKC4.4T-2/TEL	6625013	Connection cable, female M12, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com
0 15 M12x1 265 32 32 55	WKC4.4T-2/TEL	6625025	Connection cable, female M12, angled, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com