



PRG 108

Retro-reflective light barrier with polarisation filter

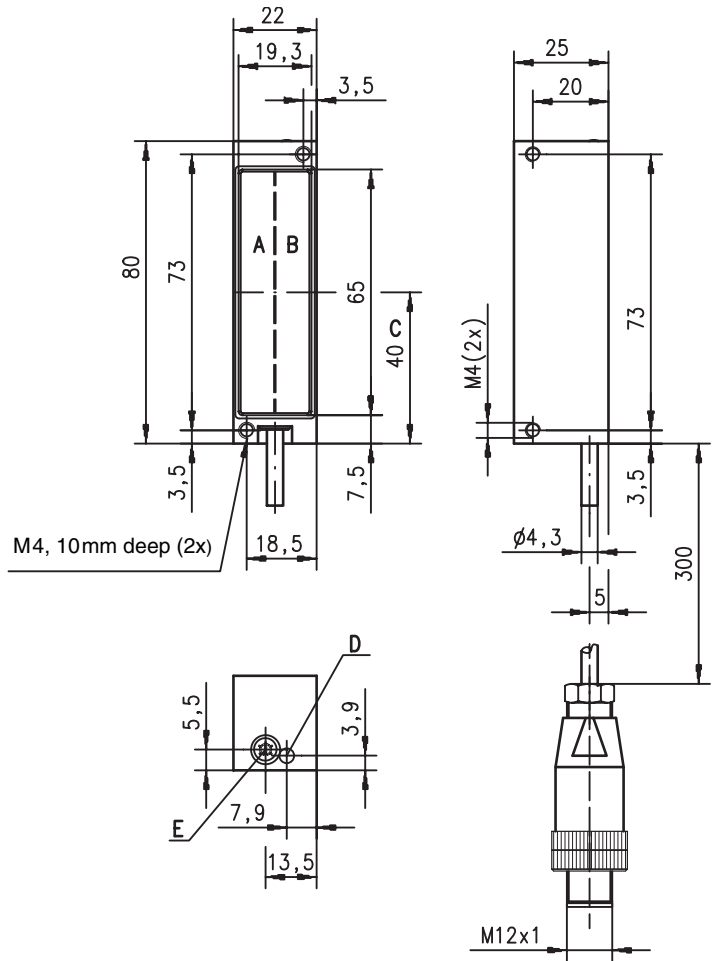


3m



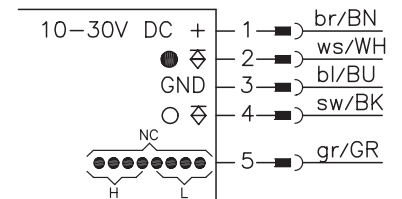
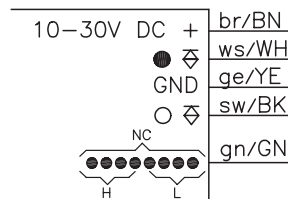
- Polarised retro-reflective light barrier with great operating range using visible red light
- Object detection  $\geq 6\text{ mm } \varnothing$
- Sensitivity adjustment for optimum adaptation to the respective application.
- Complementary PNP switching outputs for PLC applications (light / dark switching)
- Status display with integrated flashing mode for display of soiling and misalignment
- Robust metal housing with protection class IP 67 for industrial application
- Through holes and threaded blind holes for individual mounting

Dimensioned drawing



- A Receiver
- B Transmitter
- C Optical axis
- D Indicator LED
- E Sensitivity adjustment

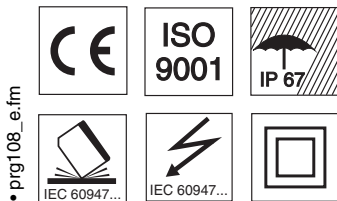
Electrical connection



Accessories:

(available separately)

- Reflectors
- Reflective tapes



We reserve the right to make changes • prg108\_e.fm

## Specifications

### Optical Data

Typ. operating range limit (TK(S) 100x100) <sup>1)</sup>	3m
Operating range <sup>2)</sup>	see table
Light source	LED (modulated light)
Wavelength	660nm (visible red light, polarised)
Detection range	approx. 60mm
Typ. max. resolution	TK(S) 50x100 8mm
	TK(S) 30x50 <sup>3)</sup> 8mm
	Tape 4 6mm

### Timing

Switching frequency	500Hz
Response time	1ms
Delay before start-up	≤ 200ms

### Electrical data

Operating voltage $U_B$	10 ... 30 V DC (incl. residual ripple)
Residual ripple	≤ 15% of $U_B$
Bias current	≤ 40mA
Switching output	2 PNP transistor outputs, complementary
Function characteristics	light / dark switching
Signal voltage high/low	≥ ( $U_B - 2V$ ) / ≤ 2V
Output current	max. 100mA

### Indicators

LED yellow	light path free
LED yellow flashing	light path free, no performance reserve

### Mechanical data

Housing	aluminium
Optics	plexiglass
Weight	250g
Connection type	PVC-cable, 6000mm, 300mm with S12 connector

### Environmental data

Ambient temp. (operation/storage)	-20°C ... +55°C / -40°C ... +55°C
Protective circuit <sup>4)</sup>	1, 2, 3, 4
VDE safety class <sup>5)</sup>	II, all-insulated
Protection class	IP 67
Standards applied	IEC 60947-5-2

### Options

#### Blanking function

Connection	gn - open	all	8 axes active
	- $+U_B$	upper	4 axes active
	- GND	lower	4 axes active

- 1) Typ. operating range limit: max. attainable range without performance reserve
- 2) Operating range: recommended range with performance reserve
- 3) E.g. for only 4 active light axes
- 4) 1=transient protection, 2=polarity reversal protection, 3=short circuit protection for all outputs, 4=interference blanking
- 5) Rating voltage 250 V AC

## Order guide

	Designation	Part No.
Cable 6m	PRG 108/44.1-7/60, 6000	500 37429
Cable, 300mm, S12 connector	PRG 108/44.1-7/60-300-S12	501 02519

## Tables

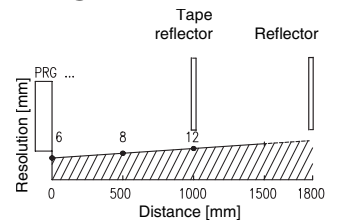
Reflectors			Operating range	
1	TK(S)	100x100	0.1 ... 2.8m	
2	TK(S)	50x100	0.1 ... 1.5m	
3	TK(S)	30x50	0.1 ... 1.5m	
4	Tape 4		0.1 ... 1.0m	

1	0,1	2.8	3.0
2	0,1	1.5	1.8
3	0,1	1.5	1.8
4	0,1	1.0	1.3

- Operating range [m]  
 Typ. operating range limit [m]

TK ... = adhesive  
 TKS ... = screw type  
 Tape 4 = adhesive

## Diagrams



## Remarks

- The sensor switches on upon interruption of any one or more light axes.
- Working range from approx. 100mm in front of sensor (depends on reflector)