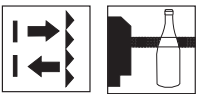




IRK 92

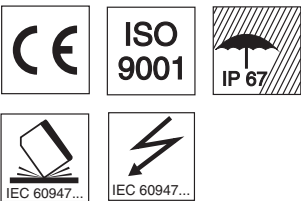
Retro-reflective photoelectric sensors



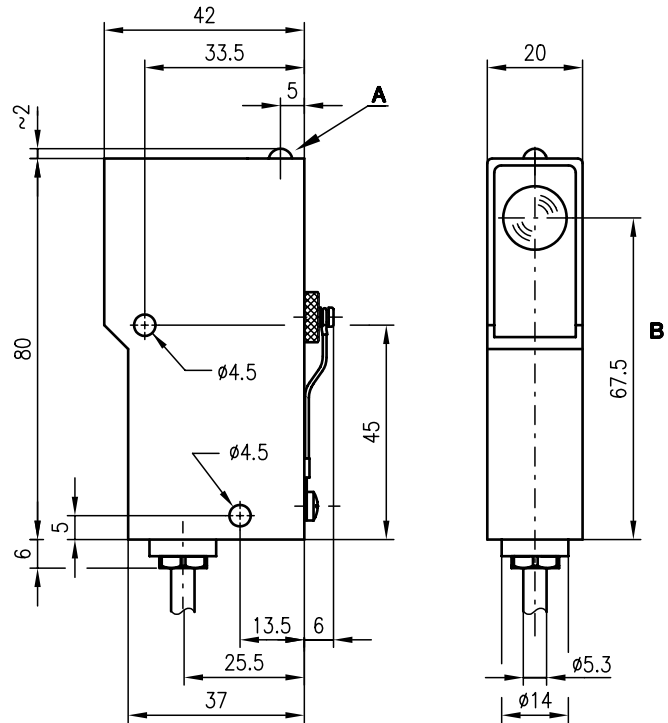
0 ... 2m

10 - 30 V
DC

- Retro-reflective photoelectric sensor using visible red light for safe detection of transparent objects (e.g. glass, PE, foil)
- Adjustable sensitivity with high resolution allows detection of transparent objects
- The autocollimation principle used ensures that the device functions reliably over the entire range (0 ... max.)
- Compact construction with glass optics and robust aluminium diecast housing, protection class IP 67 for industrial application
- Warning output autoControl for increased availability



Dimensioned drawing



- A Indicator diode
- B Optical axis

Electrical connection

10-30V DC +	br/BN
GND	bl/BU
○	sw/BK
●	rt/RD
warn	vi/VT
⊕	gnge/GNYE

We reserve the right to make changes • 92_b01e.fm

Accessories:

(available separately • see page 342)

- Mounting systems (BT 92, UMS 1)
- Ready-made cables (KB ...)
- Reflectors
- Reflective tapes



Specifications

Optical data

Operating range (TK(S) 100x100) ¹⁾	0 ... 2m
Light source	LED (modulated light)
Wavelength	660nm (visible red light)

Timing

Switching frequency	100Hz
Response time	5ms

Electrical data

Operating voltage U_B	10 ... 30VDC (incl. residual ripple)
Residual ripple	$\leq 15\%$ of U_B
Bias current	≤ 30 mA
Switching output	2 PNP transistor outputs, complementary
Function characteristics	light or dark switching (by reversing the polarity of U_B)
Signal voltage high/low	$\geq (U_B - 2V) / \leq 2V$
Output current	max. 100mA

Indicators

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

Mechanical data

Housing	diecast aluminium
Optics	glass
Weight	90g
Connection type	cabl: length 10m, 6x0.25mm ²

Environmental data

Ambient temp. (operation/storage)	-20°C ... +60°C / -30°C ... +70°C
Protective circuit ²⁾	2, 3
VDE safety class	I
Protection class	IP 67
Standards applied	IEC 60947-5-2

Options

Warning output autoControl warn	PNP transistor, counting principle
Signal voltage high/low	$\geq (U_B - 2V) / \leq 2V$
Output current	max. 100mA

- 1) Operating range: recommended range with performance reserve
 2) 2=polarity reversal protection, 3=short-circuit protection for all outputs

Tables

Reflectors	Operating range
TK(S) 100x100	0 ... 2.0 m
TK(S) 50x100	0 ... 1.8 m
TK(S) 50x50	0 ... 1.0 m
TK(S) 30x50	0 ... 0.8 m
TK 82	0 ... 2.0 m
TK 60	0 ... 0.8 m
TK 35	0 ... 0.8 m

TK ... = adhesive
 TKS ... = screw type

Diagrams

Order guide

Designation	Part No.
IRK 92/44.4, 10000	500 23851

Remarks

- Sensitivity adjustment is carried out by placing an object between the transmitter and the reflector.
- Turn the potentiometer until the LED illuminates red or yellow. Then turn back to the point where the LED turns off.
- Remove the object and check the setting by moving the object through the light path (correct setting if necessary).