

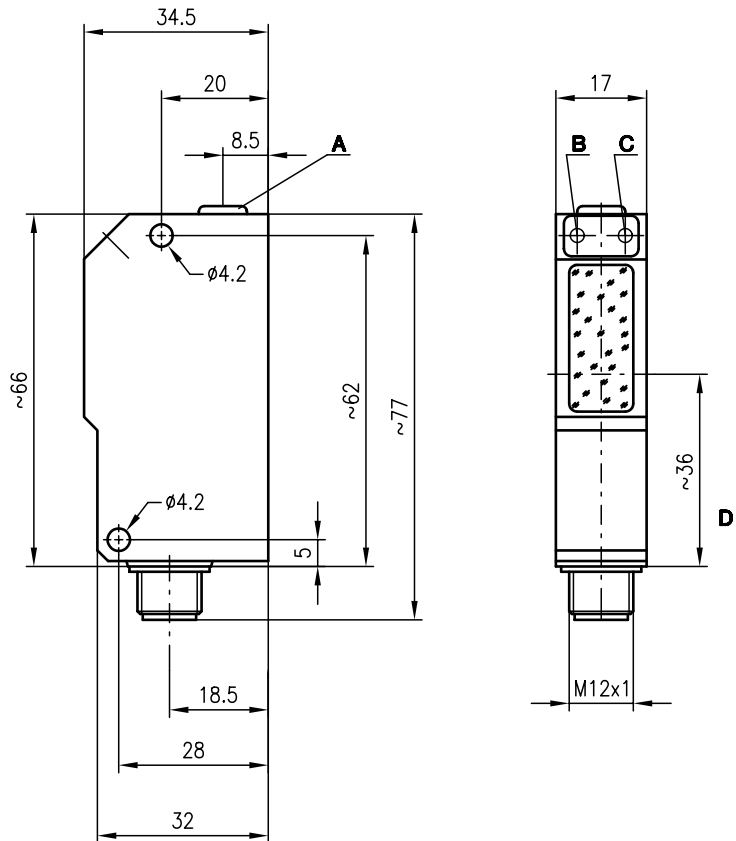


IRK 95

Energetic diffuse reflection light scanner



Dimensioned drawing



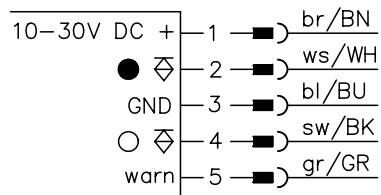
10 ... 400mm



- Energetic scanner with sensitivity adjustment in visible red light or infrared light
- High switching frequency for detection of fast events
- Small construction with glass cover and robust zinc diecast housing, protection class IP 67/IP 69K for industrial application
- Complementary switching outputs for light/dark switching or as a control function

- A** Scanning range adjustment
- B** Switching indicator yellow
- C** Operation indicator green
- D** Optical axis

Electrical connection



Accessories:

(available separately)

- Mounting systems (BT 95, UMS 1)
- M12 connectors (KD ...)

We reserve the right to make changes • 95_c01e.fm

Specifications

Optical data

Typ. scanning range limit (white 90%) ¹⁾
 Scanning range ²⁾
 Adjustment range
 Light source
 Wavelength

IRK 95/44-250 L

Infrared light
 10 ... 400mm
 see tables
 70 ... 400mm
 LED (modulated light)
 880nm

IRKR 95/44-250 L

Red light
 10 ... 400mm
 see tables
 70 ... 400mm
 LED (modulated light)
 660nm

Timing

Switching frequency
 Response time
 Delay before start-up

1000Hz
 0.5ms
 ≤ 100ms

Electrical data

Operating voltage U_B
 Residual ripple
 Bias current
 Switching output
 Function characteristics
 Signal voltage high/low
 Output current

10 ... 30VDC (incl. residual ripple)
 ≤ 15% of U_B
 ≤ 35mA
 2 PNP transistor outputs, complementary
 light/dark switching
 $\geq (U_B - 2V) \leq 2V$
 max. 100mA

Indicators

LED green
 LED yellow
 LED yellow flashing

ready
 reflection
 reflection, no performance reserve

Mechanical data

Housing
 Optics cover
 Weight
 Connection type

diecast zinc
 glass
 90g
 M12 connector, stainless steel, 5-pin

Environmental data

Ambient temp. (operation/storage)³⁾
 Protective circuit ⁴⁾
 VDE safety class ⁵⁾
 Protection class
 LED class
 Standards applied

-25°C (-30°C) ... +60°C/-40°C ... +70°C
 2, 3
 II, all-insulated
 IP 67, IP 69K ⁶⁾
 1 (acc. to EN 60825-1)
 IEC 60947-5-2

Options

Warning output autoControl warn
 Signal voltage high/low
 Output current

PNP transistor, counting principle
 $\geq (U_B - 2V) \leq 2V$
 max. 100mA

- 1) Typ. scanning range limit: max. attainable range without performance reserve
- 2) Scanning range: recommended range with performance reserve
- 3) -30°C with operating voltage continuously applied
- 4) 2=polarity reversal protection, 3=short-circuit protection for all outputs
- 5) Rating voltage 250 VAC
- 6) IP 69K test acc. to DIN 40050 part 9 simulated, high pressure cleaning conditions without the use of additives, acids and bases are not part of the test

Order guide

	Designation	Part No.
Infrared light	IRK 95/44-250 L	500 25611
Red light	IRKR 95/44-250 L	500 25612

Tables

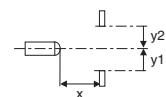
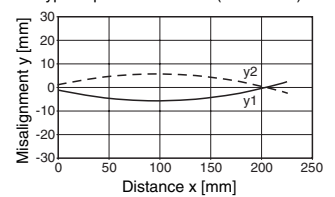
1	10	250	400
2	15	190	250
3	20	160	180

1	white 90%
2	grey 18%
3	black 6%

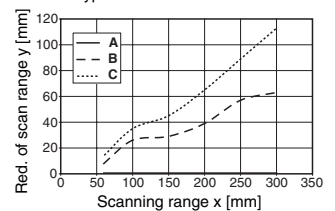
Scanning range [mm]
 Typ. scanning range limit [mm]

Diagrams

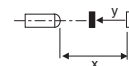
Typ. response behaviour (white 90%)



Typ. black/white behaviour



- A** white 90%
- B** grey 18%
- C** black 6%



Remarks

- With the set scanning range, a tolerance of the upper scanning range limit is possible depending on the reflection properties of the material surface.