

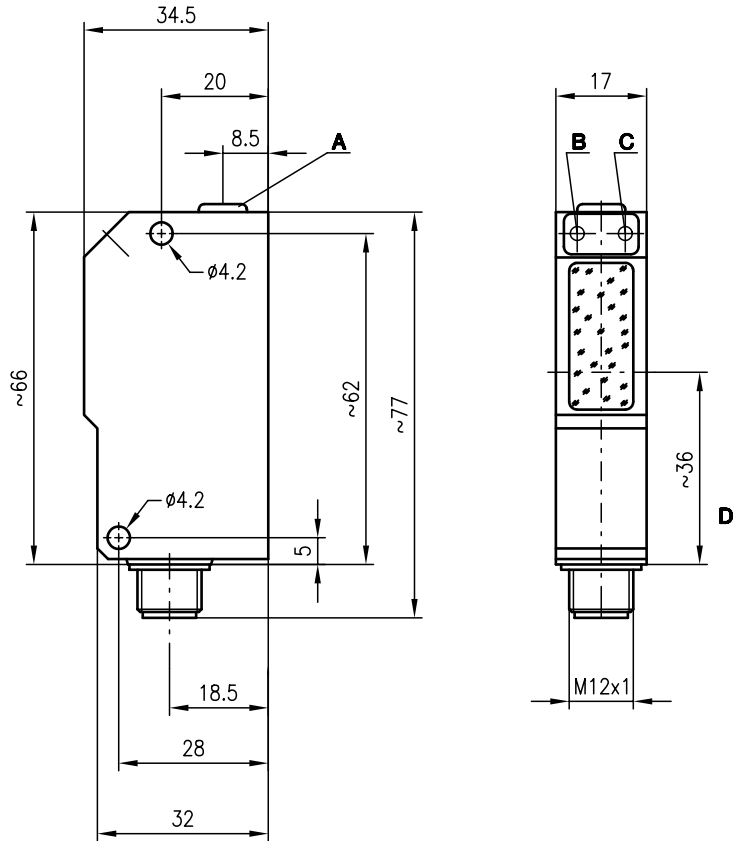


# IRK 95

# Energetic diffuse reflection light scanner



## Dimensioned drawing



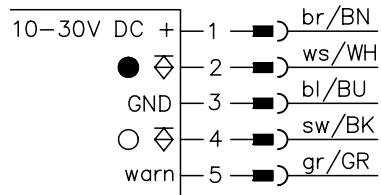
10 ... 400mm



- 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%) <sup>1)</sup>  
 Scanning range <sup>2)</sup>  
 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)<sup>3)</sup>  
 Protective circuit <sup>4)</sup>  
 VDE safety class <sup>5)</sup>  
 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 <sup>6)</sup>  
 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

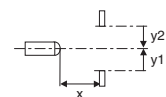
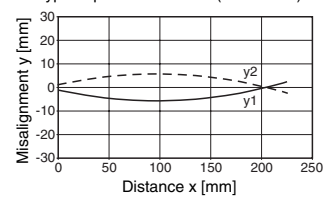
1	10	250	400
2	15	190	250
3	20	160	180

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

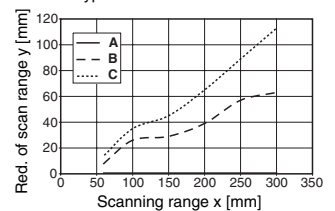
Scanning range [mm]  
 Typ. scanning range limit [mm]

## Diagrams

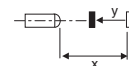
Typ. response behaviour (white 90%)



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.