

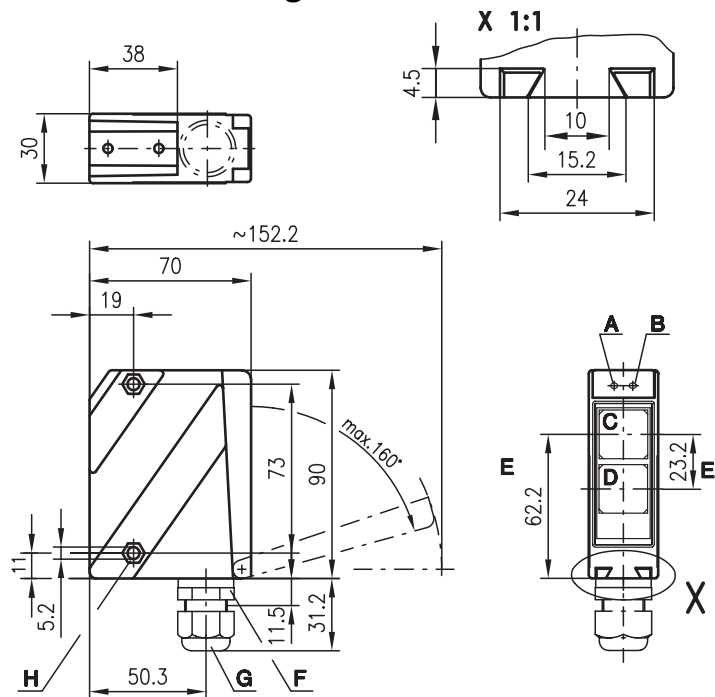


RT 96

Energetic diffuse reflection light scanners



Dimensioned drawing

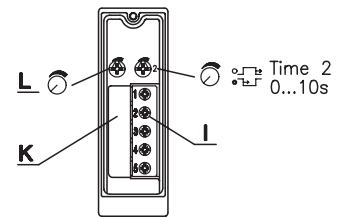


20 ... 1200 mm

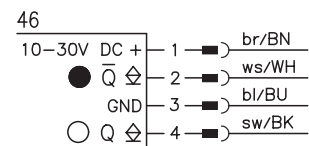
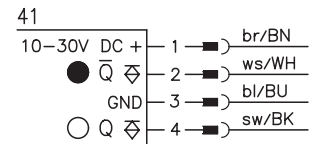
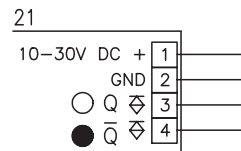


- Robust metal housing with glass cover or plastic housing, protection class IP 67 for industrial application
- Complementary outputs, sensitivity adjustment and delay before start-up for optimal adaptation to the application
- Minimal short range
- Connection via M12 connector or terminal compartment

- A Indicator diode green
- B Indicator diode yellow
- C Receiver
- D Transmitter
- E Optical axis
- F Device plug M12
- G Screwed cable gland M16x1.5 for Ø 5 ... 10mm
- H Countersinking for SK nut M5, 4.2 deep
- I Connection terminals
- K Cable entry
- L Sensitivity adjustment



Electrical connection



Accessories:

(available separately)

- Mounting systems (BT 96, BT 96.1, UMS 96, BT 450.1-96)
- M12 connectors (KD ...)
- Ready-made cables (K-D ...)

We reserve the right to make changes • 96_c05e.fm

Specifications

Optical data

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

Infrared light

20 ... 1200mm
 20 ... 800mm
 0 ... 100%
 LED (modulated light)
 880nm

Timing

Switching frequency 1000Hz
 Response time 0.5ms
 Delay before start-up ≤ 200ms

Electrical data

Operating voltage U_B 10 ... 30VDC (incl. residual ripple)
 Residual ripple ≤ 15% of U_B
 Bias current ≤ 40mA
 Switching output PNP transistor
 Function characteristics light/dark switching
 Signal voltage high/low $\geq (U_B - 2V) / \leq 2V$
 Output current max. 100mA
 Sensitivity adjustable

Indicators

LED green ready
 LED yellow reflection
 LED yellow flashing reflection, no performance reserve

Mechanical data

Housing polycarbonate
 Optics cover plastic
 Weight 150g
 Connection type terminals or M12 connector

Environmental data

Ambient temp. (operation/storage) -20°C ... +60°C/-40°C ... +70°C
 Protective circuit ³⁾ 1, 2, 3, 4
 VDE safety class ⁴⁾ II, all-insulated
 Protection class IP 67
 LED class 1 (acc. to EN 60825-1)
 Standards applied IEC 60947-5-2

- 1) Typ. scanning range limit: max. attainable range without performance reserve
 2) Scanning range: recommended range with performance reserve
 3) 1=transient protection, 2=polarity reversal protection, 3=short circuit protection for all outputs, 4=interference blanking
 4) Rating voltage 250VAC

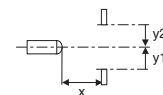
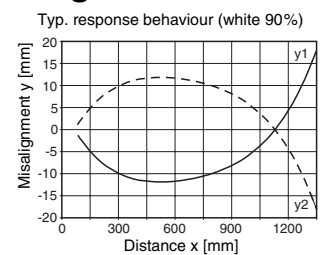
Tables

1	20	800	1200
2	60	420	950
3	80	290	570

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

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

Diagrams



Order guide

Selection table		Order code →					
Equipment ↓		RT 96K/P-1444-800-21 Part No. 500 81177	RT 96K/P-1444-800-41 Part No. 500 81178	RT 96K/N-1444-800-46 Part No. 500 41595	RT 96K/P-1444.1-800-41 Part No. 501 03585		
Housing	metal						
	plastic	●	●	●	●		
Light source	red light (500mm)						
	infrared light (800mm)	●	●	●	●		
Connection	terminals	●					
	M12 connector		●	●	●		
Features	switching delay						
	warning output						
	short range (20mm)	●	●	●	●		
	NPN switching output			●			
	PIN 2 = NC *				●		
	PIN 4 = light/dark reversible				●		

Remarks

- The upper and lower scanning range limit varies depending on the reflection properties of the material surface.
- **Short range** objects are detected down to a minimum distance of 20mm.
- * For direct connection to AS-i I/O coupling modules