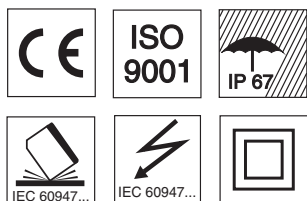


RTR 3
Energetic diffuse reflection light scanner

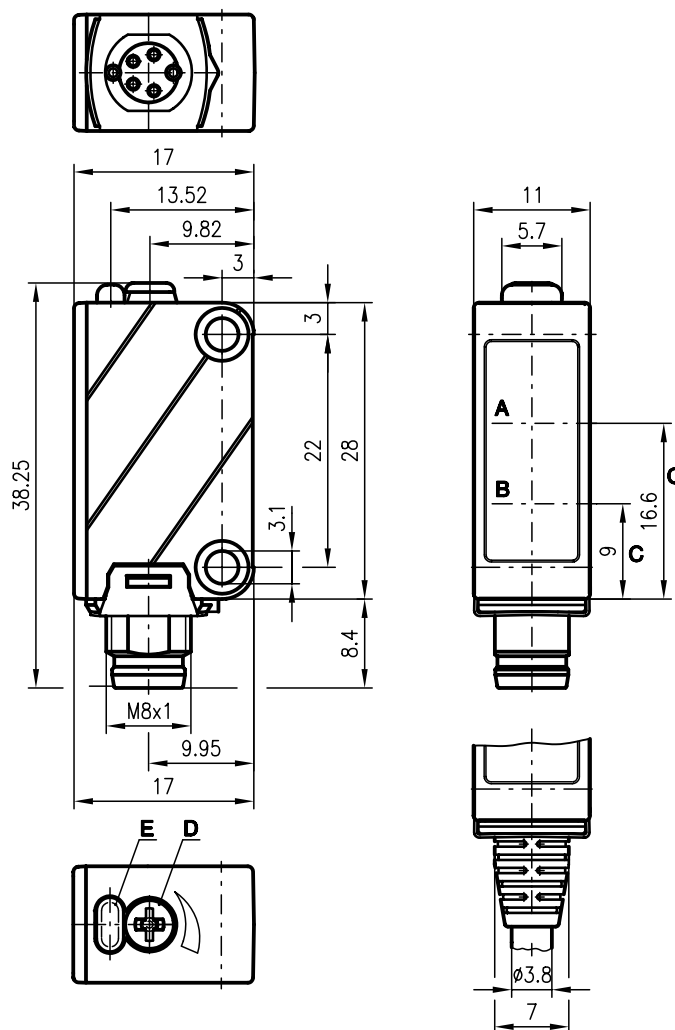
5 ... 500mm


- Energetic scanner with sensitivity adjustment
- Visible red light for easy and quick alignment
- Small construction with robust plastic housing, protection class IP 67 for industrial application
- High switching frequency for detection of fast events
- Complementary outputs for light/dark switching or as a control function


Accessories:

(available separately)

- Mounting systems (BT 3)
- M8 connectors (KD ...)
- Ready-made cables (KB ...)

Dimensioned drawing


- A** Receiver
B Transmitter
C Optical axis
D Adjustment screw
E Indicator diode

Electrical connection

RTR 3/44-300

10-30V DC +	br/BN
GND	bl/BU
○	sw/BK
●	ws/WH

RTR 3/44-300-S8

10-30V DC +	1	br/BN
●	2	ws/WH
GND	3	bl/BU
○	4	sw/BK

RTR 3/22-300-S8

10-30V DC +	br/BN
●	ws/WH
GND	bl/BU
○	sw/BK

Specifications

Optical data

Typ. scanning range limit ¹⁾	5 ... 500mm
Scanning range ²⁾	see table
Adjustment range	60 ... 500mm
Light source	LED (modulated light)
Wavelength	660nm (visible red light)

Timing

Switching frequency	1000Hz
Response time	0.5 ms
Delay before start-up	≤ 100ms

Electrical data

Operating voltage U_B	10 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of U_B
Bias current	≤ 25mA
Switching output	2 transistor outputs, complementary
Function characteristics	light/dark switching
Signal voltage high/low	≥ ($U_B - 2V$) / ≤ 2V
Output current	max. 100mA
Sensitivity	adjustable with multiturn potentiometer

Indicators

LED yellow	reflection
LED yellow flashing	reflection, no performance reserve

Mechanical data

Housing	plastic
Optics cover	plastic (PMMA)
Weight	20g
Connection type	M8 connector (4-pin) or PUR cable 2m (cross section 4x0.2mm ²)

Environmental data

Ambient temp. (operation/storage)	-25°C ... +55°C / -40°C ... +70°C
Protective circuit ³⁾	2, 3
VDE safety class ⁴⁾	II, all-insulated
Protection class	IP 67
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) 2=polarity reversal protection, 3=short-circuit protection for all outputs
4) Rating voltage 250VAC

Order guide

with cable

with complementary
PNP switching outputs

Designation

RTR 3/44-300

Part No.

500 30921

with M8 connector

with complementary
PNP switching outputs
with complementary
NPN switching outputs

RTR 3/44-300-S8

500 30920

RTR 3/22-300-S8

500 33310

Tables

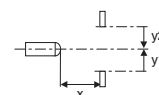
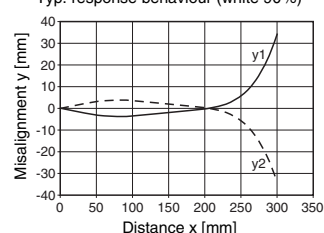
1	5	300	500
2	8	145	220
3	10	110	120

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

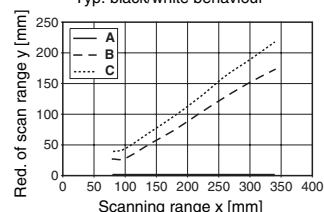
	Scanning range [mm]
	Typ. scanning range limit [mm]

Diagrams

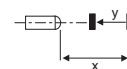
Typ. response behaviour (white 90%)



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.