

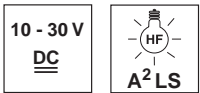


## RTR 303

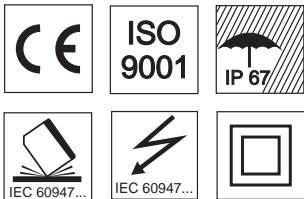
## Energetic diffuse reflection light scanner



0 ... 120mm



- A²LS - active suppression of extraneous light
- High switching frequency for detection of fast events
- Complementary outputs for light/dark switching
- Visible red light

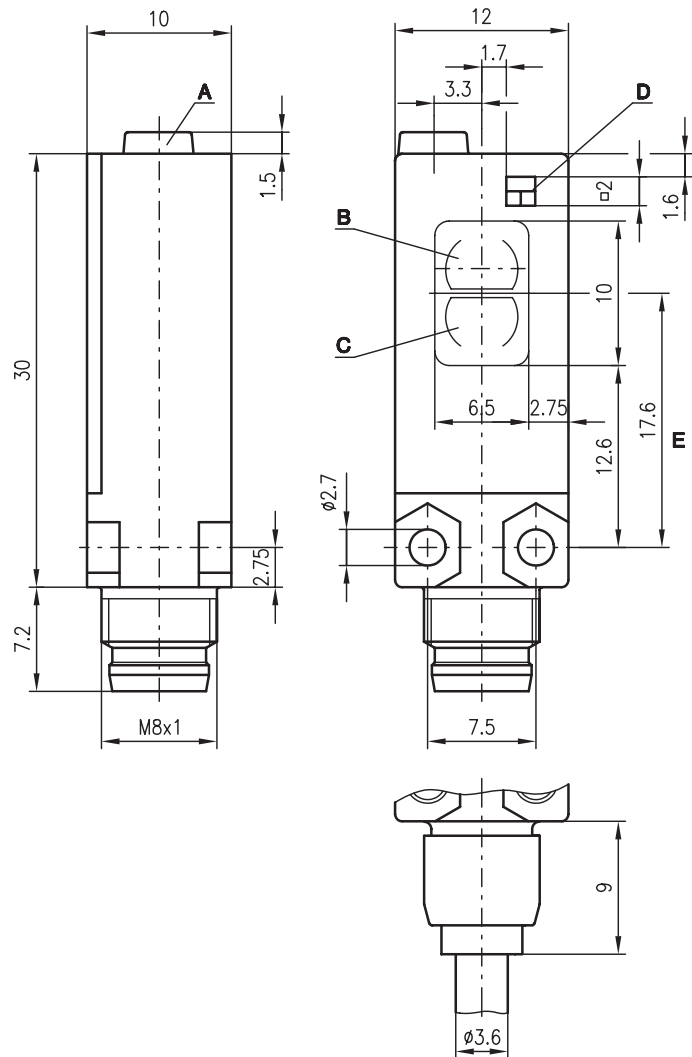


### Accessories:

(available separately)

- M8 connectors (KD ...)
- Ready-made cables (KB ...)

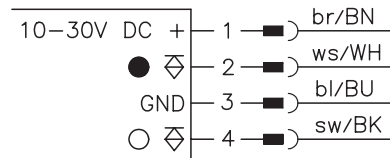
### Dimensioned drawing



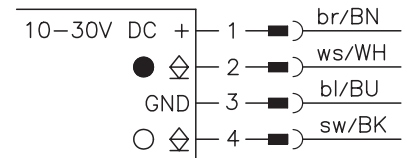
- A Sensitivity adjustment
- B Transmitter
- C Receiver
- D Indicator diode
- E Optical axis

### Electrical connection

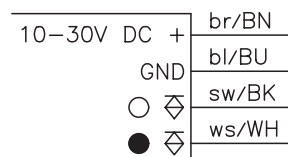
RTR 303/44-100-S8



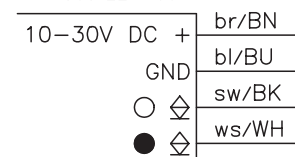
RTR 303/22-100-S8



RTR 303/44-100



RTR 303/22-100



### Specifications

#### Optical Data

Typ. scanning range limit (white 90%) <sup>1)</sup>	0 ... 120mm
Scanning range <sup>2)</sup>	see tables
Adjustment range	50 ... 120mm
Light source	LED (modulated light)
Wavelength	645nm (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
Residual ripple	≤ 10% of $U_B$
Bias current	≤ 25mA
Switching output	2 PNP or 2 NPN complementary switching outputs
Function characteristics	light/dark switching
Signal voltage high/low	$\geq (U_B - 2V) / \leq 2V$
Output current	max. 100mA
Sensitivity	adjustable with 270° potentiometer

#### Indicators

LED yellow	object detected
LED yellow flashing	object detected, no performance reserve

#### Mechanical data

Housing	polyamide 12
Optical cover	polyamide 12
Weight (plug/cable)	4g/45g
Connection type	M8 connector, 4-pin cable 2000mm, 4x0.14 mm <sup>2</sup> , PVC

#### Environmental data

Ambient temp. (operation/storage)	-25°C ... +60°C/-40°C ... +75°C
Protective circuit <sup>3)</sup>	2, 3
VDE safety class <sup>4)</sup>	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 250 V AC

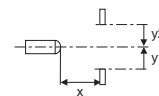
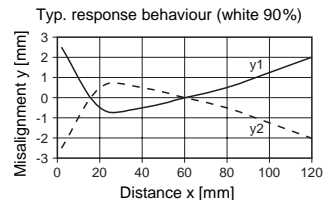
### Tables

1	0	100	120
2	15	55	70
3	25	40	50

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

<input type="checkbox"/>	Scanning range [mm]
<input type="checkbox"/>	Typ. scanning range limit [mm]

### Diagrams



### Order guide

Selection table		Order code →						
Equipment ↓		RTR 303/44-100-S8 Part No. 500 82224	RTR 303/44-100 Part No. 500 82225	RTR 303/22-100-S8 Part No. 500 82226	RTR 303/22-100 Part No. 500 82227			
Switching output	PNP transistor	●	●					
	NPN transistor			●	●			
Connection	cable 2000mm		●		●			
	S8 plug connector	●		●				
Features	potentiometer	●	●	●	●			

### Remarks