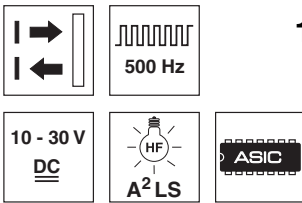


RTR 25B

Energetic diffuse reflection light scanner

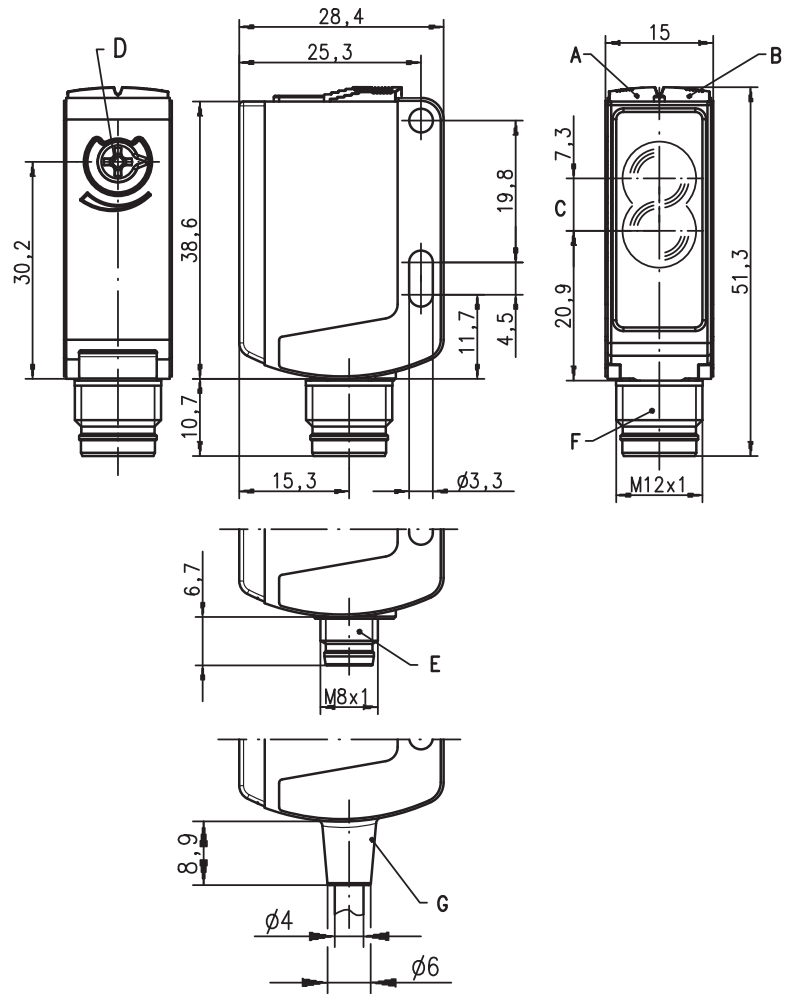
en 02-2014/05 50108924-01



10 ... 650mm

- Diffuse reflection light scanner with visible red light
- Small and compact construction with robust plastic housing, protection class IP 67/IP 69K for industrial application
- Fast alignment through *brightVision*®
- A²LS - Active Ambient Light Suppression
- Push-pull switching outputs
- High switching frequency for detection of fast events
- Scanning range adjustment

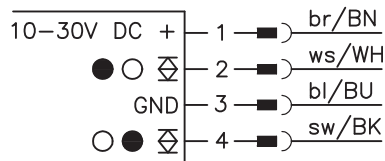
Dimensioned drawing



- A** Indicator diode green
- B** Indicator diode yellow
- C** Optical axis
- D** Scanning range adjustment
- E** Connector M8x1
- F** Connector M12x1
- G** Cable

Electrical connection

RTR 25B/66-S12



We reserve the right to make changes • DS_RTR25B_en_50108924_01.fm



Accessories:

(available separately)

- Mounting systems (BT 25, UMS 25...)
- Cable with M8 or M12 connector (K-D ...)

Specifications

Optical data

Typ. scanning range limit ¹⁾	10 ... 650 mm
Scanning range ²⁾	see tables
Light source ³⁾	LED (modulated light)
Wavelength	620nm (visible red light, polarised)

Timing

Switching frequency	500Hz
Response time	1 ms
Delay before start-up	≤ 300ms

Electrical data

Operating voltage U_B ⁴⁾	10 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of U_B
Bias current	≤ 20mA
Switching output ⁵⁾	.../66 2 push-pull switching outputs
Function characteristics	light/dark switching
Signal voltage high/low	≥ ($U_B - 2V$)/≤ 2V
Output current	max. 100mA
Scanning range	adjustable with potentiometer

Indicators

Green LED	ready
Yellow LED	reflection (object detected)

Mechanical data

Housing	plastic (PC-ABS)
Optics cover	plastic (PMMA)
Weight	with connector: 15g with 200mm cable and connector: 30g with 2m cable: 55g
Connection type	cable 2m (cross section 4x0.21mm ²), connector M8 or M12, cable 0.2m with connector M8 or M12

Environmental data

Ambient temp. (operation/storage)	-30°C ... +55°C/-30°C ... +60°C
Protective circuit ⁶⁾	2, 3
VDE safety class ⁷⁾	II
Protection class	IP 67, IP 69K
Light source	free group (in accordance with EN 62471)
Standards applied	IEC 60947-5-2
Certifications	UL 508, C22.2 No.14-13 ^{4) 8)}

- 1) Typ. scan. range limit/adjustment range: max. achievable scanning range/adjustment range for light objects (white 90%)
- 2) Scanning range: recommended scanning range for objects with different diffuse reflection
- 3) Average life expectancy 100,000h at an ambient temperature of 25°C
- 4) For UL applications: for use in class 2 circuits according to NEC only
- 5) The push-pull switching outputs must not be connected in parallel
- 6) 2=polarity reversal protection, 3=short-circuit protection for all transistor outputs
- 7) Rating voltage 50V
- 8) These proximity switches shall be used with UL Listed Cable assemblies rated 30V, 0.5A min, in the field installation, or equivalent (categories: CYJV/CYJV7 or PVVA/PVVA7)

Tables

1	10	600	650
2	20	200	220
3	30	130	140

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

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




Diagrams

Remarks

● Intended use:

The light scanners are optical electronic sensors for optical, contactless detection of objects.

Operate in accordance with intended use!

-  This product is not a safety sensor and is not intended as personnel protection.
-  The product may only be put into operation by competent persons.
-  Only use the product in accordance with the intended use.

- With the set scanning range, a tolerance of the scanning range limits is possible depending on the reflection properties of the material surface.
- Sensor particularly well suited for distinguishing between light and dark objects.

Order guide

Selection table		Order code →	RTR 25B/66-S12 Part No. 501 084726
Equipment ↓			
Switching output	2 x Push-pull switching output	●	
	1 x PNP output		
	2 x PNP output		
Switching function	1 PNP light switching and NPN dark switching output	●	
	1 PNP dark switching and NPN light switching output	●	
	1 x PNP light switching output		
	1 x PNP dark switching output		
	1 warning output		
Connection	M8 connector, 4-pin		
	M12 connector, 4-pin	●	
	cable 2.000 mm		
	cable 200 mm with M8 connector, 4-pin		
	cable 200 mm with M12 connector, 4-pin		
Indicators	green LED: ready	●	
	yellow LED: light path free	●	
Options	scanning range adjustment via potentiometer		
	activation input		
	for direct connection to AS-i I/O coupling modules		

