

RT 318

Energetic diffuse reflection light scanners

Part No. 501 08679



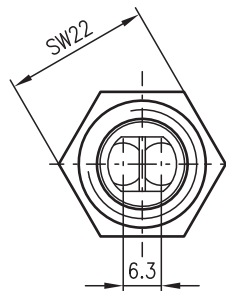
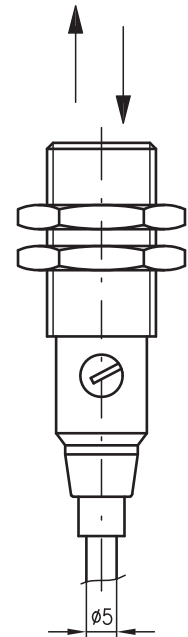
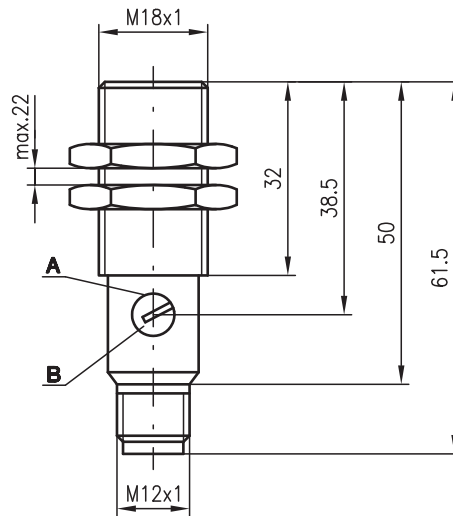
0 ... 120mm



- Energetic diffuse reflection light scanner with fading for background suppression
- Robust cylindrical metal or plastic housing M18x1, protection class IP 67 for industrial application
- Complementary switching outputs for light/dark switching or as a control function
- Very short construction for application in limited spaces

Dimensioned drawing

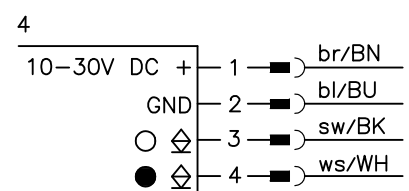
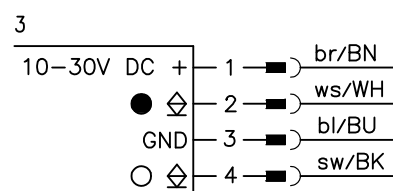
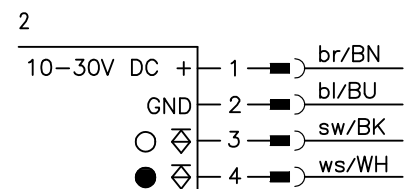
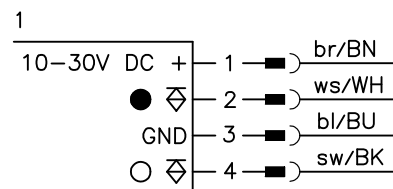
RT 318M/...



RT 318K/...

- A** Indicator diode
- B** Sensitivity adjustment

Electrical connection



Accessories:

(available separately)

- Mounting systems (BT 318, BT 318-ARH)
- M12 connectors (KD ...)
- Ready-made cables (K-D ...)

We reserve the right to make changes • 318_c05gb.fm

Specifications

Optical data

Typ. scanning range limit (white 90%) ¹⁾	0 ... 120mm
Scanning range ²⁾	see tables
Adjustment range	65 ... 120mm
Light source	LED (modulated light)
Wavelength	880nm

Timing

Switching frequency	1000Hz
Response time	0.5ms
Delay before start-up	≤ 30ms

Electrical data

Operating voltage U_B	10 ... 30VDC
Residual ripple	≤ 10% of U_B
Bias current	≤ 15mA
Switching output	2 transistor outputs, complementary
Function characteristics	light/dark switching
Signal voltage high/low	≥ ($U_B - 1.6V$)/≤ 1.6V
Output current	max. 100mA
Sensitivity	adjustable

Indicators

LED red	reflection
LED red flashing	reflection, no performance reserve

Mechanical data

Housing	polyamide 12 or stainless steel
Optics cover	polyamide 12
Weight	90g (cable), 20g (M12)
Connection type	M12 connector, 4-pin cable 2m, 4x0.25mm ²

Environmental data

Ambient temp. (operation/storage)	-25°C ... +65°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

Remarks

Approved purpose:

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

- With the set scanning range, a tolerance of the upper and lower scanning range limit is possible depending on the reflection properties of the material surface.

Order guide

Selection table		RT 318K/P-100-S12.11 Part No. 500 83244	RT 318M/P-100-S12.11 Part No. 501 09471	RT 318K/P-100.11 Part No. 501 09473	RT 318M/P-100.11 Part No. 501 09470	RT 318M/N-100-S12.11 Part No. 500 83249	RT 318K/N-100.11 Part No. 501 08612	RT 318M/N-100.11 Part No. 501 08611
Equipment ↓	Order code →							
Housing	plastic	●		●			●	
	stainless steel		●		●	●		●
Connection	M12 connector	●	●			●		
	cable			●	●		●	●
Switching output	PNP	●	●	●	●			
	NPN					●	●	●
Connection diagram		1	1	2	2	3	4	4

Tables

RT 318...-100-...

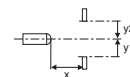
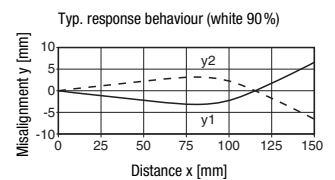
1	0	100	120
2	2	75	85
3	5	55	65

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

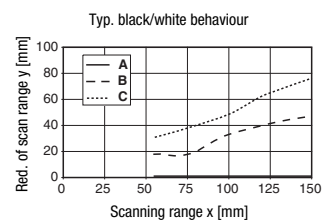
□	Scanning range [mm]
▨	Typ. scanning range limit [mm]

Diagrams

RT 318...-100-...



RT 318...-100-...



- A white 90%
- B grey 18%
- C black 6%

