

Overview – sensors with snap lock-cover and M16x1,5-thread

Through-beam sensor		Diffuse reflective sensor		
SE	EE ≥20m var.	RT ≥600mm var.	RT ≥1500mm var.	RH 60 – 400mm var.
655.1086.001	655.1686.003	655.7686.001	655.7686.003	655.8686.002
OR20SE-MOOS-20.0-AV	OR20EE-MAR5-20.0-ALET	OR20RT-MAR5-0600-ALET	OR20RT-MAR5-01.5-ALET	OR20RH-MAR5-0400-ALET

Retroreflective sensor		Polarised retro sensor	
RS ≥ 8m var.		PS ≥ 6m var.	
655.4686.001		655.5686.001	
OR20RS-MAR5-08.0-ALET		OR20PS-MAR5-06.0-ALET	

Abbreviations

- SE = Through beam, transmitter only
- EE = Through beam, receiver only
- RT = Diffuse reflective sensor
- RH = Diffuse reflective sensor with background suppression
- RS = Retroreflective sensor
- PS = Polarised retro sensor
- fix = sensing range is fixed
- var. = sensing range adjustable with potentiometer

Overview– sensors with M16x1,5–cable gland and screw–cap housing

Through–beam sensor		Diffuse reflective sensor		
SE	EE	RT 600mm var.	RT ≥1500mm var.	RH 60 – 400mm var.
on request	on request	on request	655.7686.004	on request
			OR20RT–MAR5–01.5–ALET	

Retroreflective sensor		Polarised retro sensor	
RS ≥ 8m var.		PS ≥ 6m var.	
655.4686.002		655.5686.002	
OR20RS–MAR5–08.0–ALET		OR20PS–MAR5–06.0–ALET	

Abbreviations

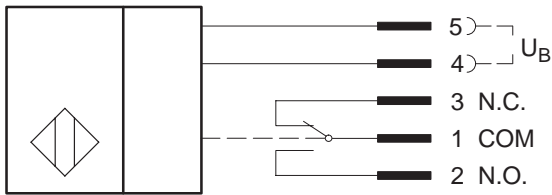
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Switching function and wiring diagrams

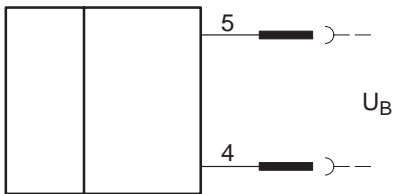
The description refers to:

Sensors	Sensing types	Mounting conditions
Diffuse reflective sensor	RT, RH	without an object inside the sensing range
Retroreflective sensor	RS, PS	without reflector
Through-beam sensor	EE	without transmitter

Relay – change over contact



Wiring diagram of the emitter



Technical Data according to EN 60947–5–2

Electrical Data

Operational voltage range	U_B	12 – 265V AC / DC, 50 / 60Hz
False polarity protection		yes
Output		Relay, change over contact; Indication: LED yellow
Max. rated output current	I	3A @ 230V AC
Voltage drop	U_d	—
Bemessungsbetriebsstrom	I_e	1A
Utilization category		AC 140
Rated insulation voltage	U_i	AC 250V
Type of protection		IP 65 (only with it's mounted cable gland and cable)
Pollution degree		3 (Pollution of the optic can cause impairments of the sensing range.)
Ambient air temperature		-20°C ... +70°C
Ambient light proof		10kLux
Sensing range		see overview
Differential travel (hysteresis)	H	≈ 10%; 655.8686.002: ≈ 5%
Repeat accuracy	R	10%
Frequency of operating cycles	f	> 50Hz
Turn on time	t_{on}	≤ 10ms
Time delay before availability	t_v	< 60ms
No-load supply current	I_0	< 30mA (activated), < 10mA (non activated); $U_B = 24V$ DC
ON-Delay		0 ... 10s (selectable, adjustable with potentiometer)
OFF-Delay		0 ... 8s (selectable, adjustable with potentiometer)

Elektromagnetic compatibility (EMC)

Electromagnetic field test	IEC 61000–4–3	$3V/m$
Electrostatic discharge test	IEC 61000–4–2	8kV
Electrical fast transient immunity test	IEC 61000–4–4	2kV
Radiated disturbance field strength	EN55011	≤ 40dB ($\mu V/m$)

Materials

Housing	PA 6.6
Beam-output	PA 12 / Glass at PS
Connection	screw-type terminals

Typical sensing range

