

Technical Data

Safety switch

Series CSMS

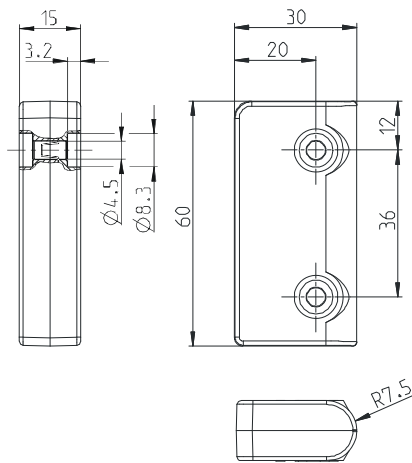
Type designation **CSMS-SET-RRS-U-ST**

Article number **6075988027**

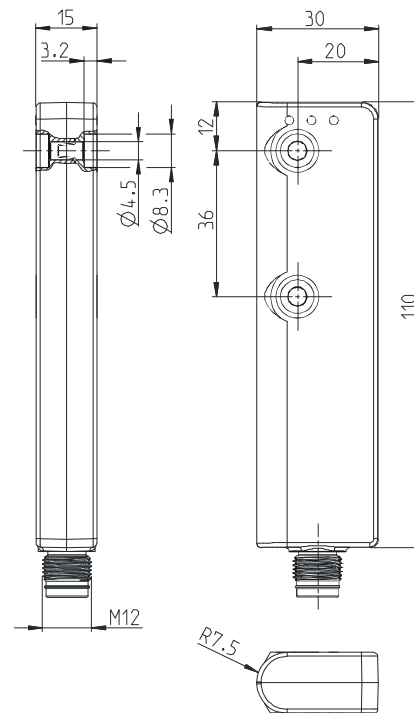
Set consisting of

Article number	Type designation	Description
6075986022	CSMS-M-RRS-U-ST	CSMS, plug connector version
6075980023	CSMS-S	Actuator

6075980023



6075986022

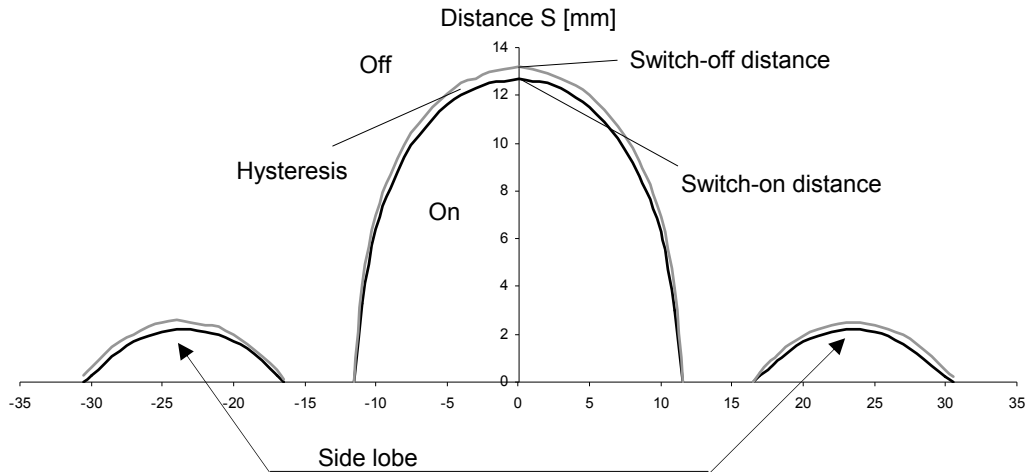


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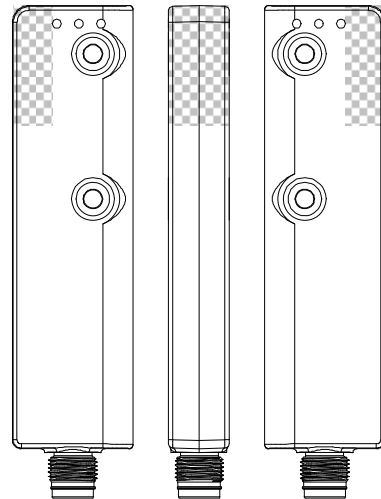
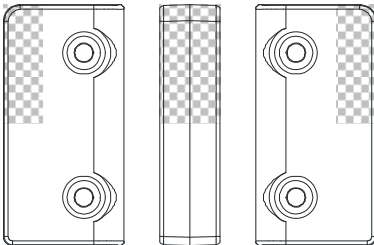
Sensing distance

		min.	typ.	max.
Rated sensing distance	S_n		13 mm	
Assured sensing distance – On	S_{ao}	10 mm		
Hysteresis	H		0,5 mm	
Assured sensing distance – Off	S_{ar}			19 mm



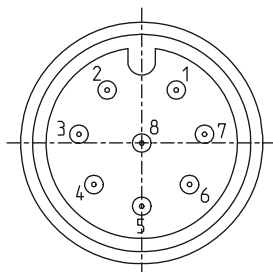
Metal can influence the sensing distance.

Active surfaces



Connection

- Pin 1 – DI - white
- Pin 2 – I1 - brown
- Pin 3 – I2 / Q3 - green
- Pin 4 – DO - yellow
- Pin 5 – Q1 - grey
- Pin 6 – Q2 - pink
- Pin 7 – +- - blue
- Pin 8 – - - red



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Electrical Data		
Rated operating voltage	U_e	24 V, Reverse polarity protection
Voltage level		according to Typ 3 EN 61131-2
Rated insulation voltage	U_i	75 V DC
Rated impulse withstand voltage	U_{imp}	500 V
Rated conditional short circuit current		100 A
No-load current	I_0	≤ 55 mA
Transponder frequency		6,78 MHz
Repeatability		0,1 x S (within the limits S_{min} and S_{max})
Operating frequency		≤ 1 Hz
Switch-off	t_a	5 ms + 260 μ s x following CSMS
Time delay start button	t_v	33 ms + 33 ms x following CSMS
Automatic start on delay	t_v	2 s + 33 ms x following CSMS
Electromagnetic interference		according to EN IEC 60947-5-2 and EN 61326-3-1
Inputs I1,I2, Di (digital inputs according to EN61131-2)		
Voltage	U_{Hmax}	30 V
	U_{Hmin}	11 V
	U_{Lmin}	-3 V
	U_{Lmax}	5 V
Outputs Q1,Q2		
Switching element function		pnp NO
Rated operating current	I_e	250 mA
Minimum operating current	I_m	1 mA DC
Leakage current	I_r	0,5 mA DC
Switching elements		Sustained short-circuit and overload protection
Voltage drop	U_d	≤ 1 V
Type of short circuit protection		Clocking
Utilization category		DC-13
Output Do		
Switching element function		nnp NO
Rated operating current	I_e	2 mA
Minimum operating current	I_m	1 mA DC
Leakage current	I_r	0,5 mA DC
Switching elements		Sustained short-circuit and overload protection
Voltage drop	U_d	≤ 3 V
Type of short circuit protection		thermal, current limited
Utilization category		DC-12
Mechanical Data		
Enclosure		Macromelt, red / PA 6, black
Mounting		2 holes $\varnothing 4,5$ (for M4 screws)
Indication		3 LEDs (for diagnosis)
Shock and Swing		acc. to EN IEC 60947-5-2
Ambient temperature		-25°C ... +70°C
Storage temperature		-25°C ... +70°C
Maximum relative humidity		90 % @ 40 °C without condensation
Altitude		≤ 2000 m NHN
Connection		Plug connector M12 male
Mass 6075986022		60g
6075980023		27g
Type of protection		IP67
Protection class acc. to EN IEC 61558		III
Pollution degree		3 (metallic pollution can cause impairments of the operating distances.)

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Safety data (according to EN ISO 13849-1)

Up to PL	e
Category	4
Service life	20 years
MTTFd	High
SIL	3 (according to EN 62061:2005)

Standards

VDE 0660 T100, DIN EN 60947-1, IEC 60947-1
VDE 0660 T200, DIN EN 60947-5-1, IEC 60947-5-1
EN 50295, EN ISO 13849-1 (IEC/EN 61508,
EN 60947-5-3)
EN 300330-2

EU-Conformity

according to Directive 2006/42/EG
according to Directive 2004/108/EG
according to Directive 1999/5/EG

Approvals

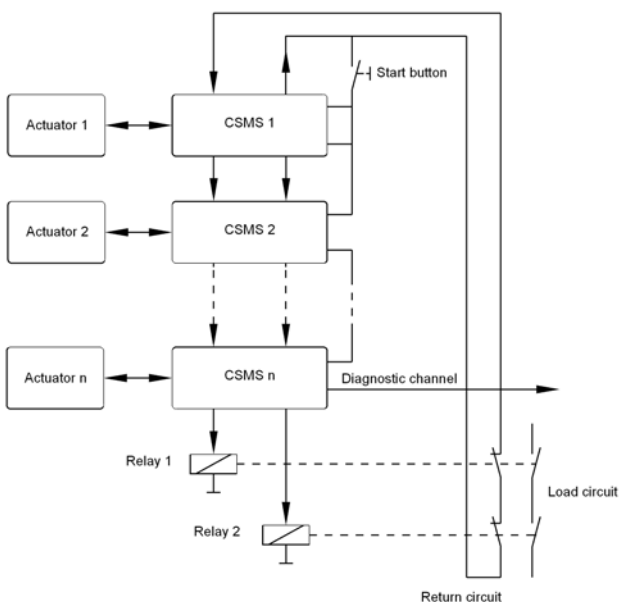
TÜV Nord (being prepared)

Notes

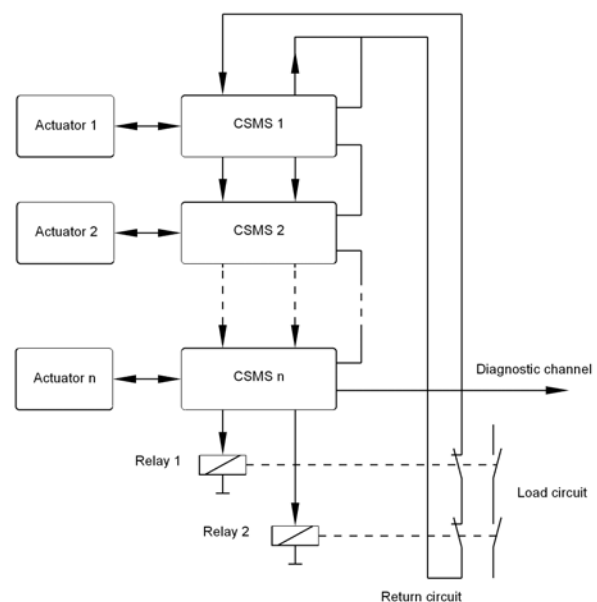
The specified protection classification (IP code) applies only when an appropriate plug connector is used.

Intended use

Application with feedback loop with or without start button (for Stand Alone Applications)



Application with start button



Application without start button (automatic start)

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