

## Safety switch Series CSMS

Description **CSMS-M-A-L-ST**

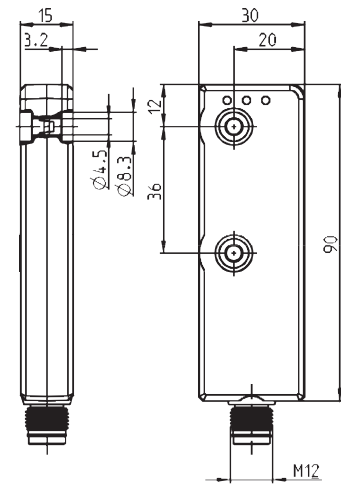
Article number **6075986071**

### Connection

PIN 1 – +  
Pin 2 – Q1  
Pin 3 – –  
Pin 4 – Q2

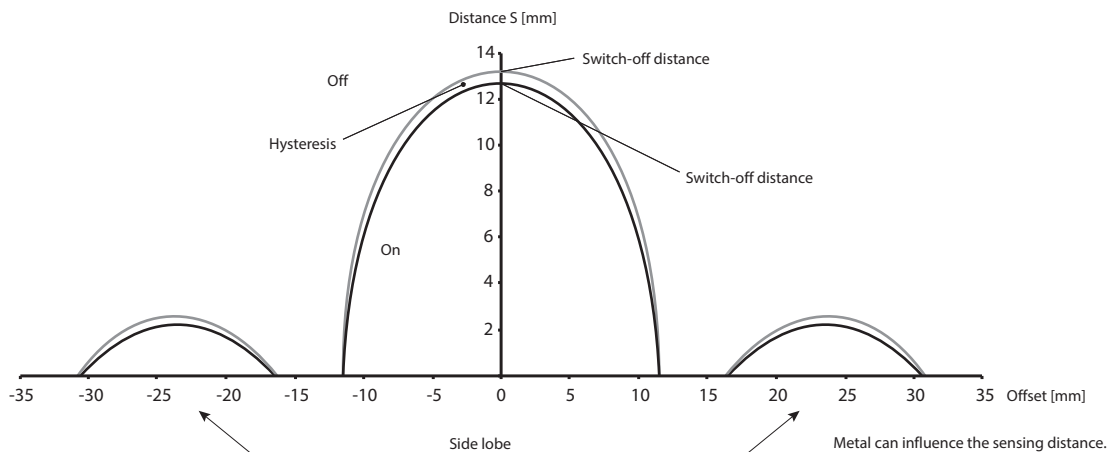


### Active surfaces



### Sensing distance (Only in conjunction with actuator 6075980065 (CSMS-S-L.))

	min.	typ.	max.
Rated sensing distance	$S_n$	13 mm	
Assured sensing distance – On	$S_{30}$	10 mm	
Hysteresis	H	0,5 mm	
Assured sensing distance – Off	$S_{ar}$		19 mm



Electrical Data		
Rated operating voltage	$U_e$	24 V, Reverse polarity protection, +10 %, -15 %
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	$I_0$	≤ 40 mA
Transponder frequency		6,78 MHz
Repeatability		0,1 x S (within the limits $S_{min}$ and $S_{max}$ )
Operating frequency		≤ 1Hz
Switch-off	$t_a$	13 ms + 200 μs x following CSMS
Time delay	$t_v$	320 ms + 50 ms x following CSMS
Electromagnetic interference		according to EN IEC 60947-5-2 and EN 61326-3-1
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

Mechanical Data	
Enclosure	Macromelt, red / PA 6, black
Mounting	2 holes Ø 4,5 (for M4 screws)
Tightening torque (max.)	1Nm
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	55 g
Type of protection	IP67
Protection class acc. to EN IEC 61558	III
Pollution degree	3 (metallic pollution can cause impairments of the operating distances.)

<b>Safety data</b> (according to EN ISO 13849-1)	
Up to PL	e
Category	4
Service life	20 years
PFH	$2.05 \cdot 10^{-9}$ 1/h
MTTFd	High
SIL	3 (according to EN 62061:2005)

<b>Standards</b>	
	EN 60947-1, EN 60947-5-2, EN 61326-3-1
	EN ISO 13849-1, EN ISO 13849-2, EN 61508
	EN 60947-5-3, EN 60204-1, EN 61131-2, EN 62061
	ETSI EN 300330-1, ETSI EN 300330-2

<b>EU-Conformity</b>	
	according to Directive 2006/42/EG
	according to Directive 1999/5/EG

<b>Approvals</b>	
	TÜV Nord

<b>Notes</b>	
The specified protection classification (IP code) applies only when an appropriate plug connector is used.	