

Technical Data

Safety switch

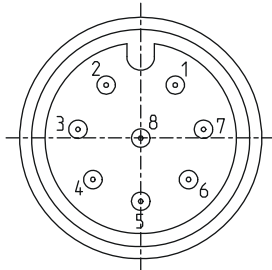
Series CSMS

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

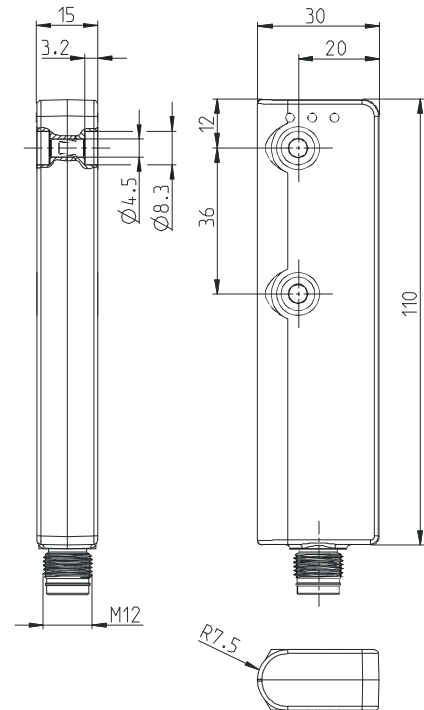
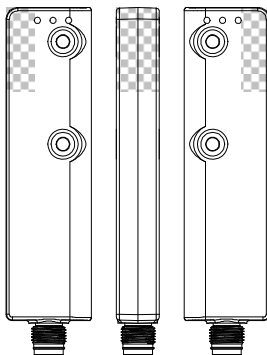
Article number **6075986022**

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

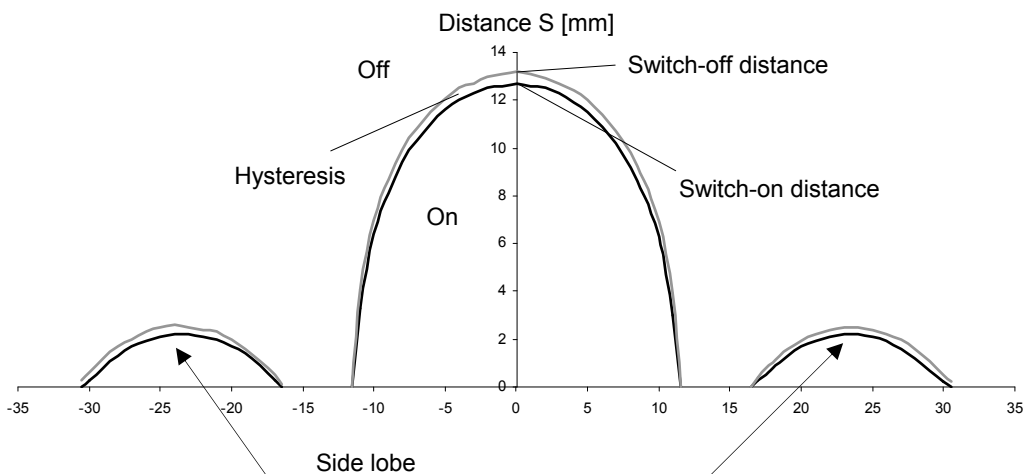


Active surfaces



Sensing distance (Only in conjunction with actuator 6075980023 (CSMS-S).)

| | | 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.

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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 | | Cable with plug connector M12 male |
| Mass | | 60 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.) |

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Date of issue: 19.06.2012 / Page 2 of 3
Document : 6075986022_en.doc / Last update : 2 / 0221-12

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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

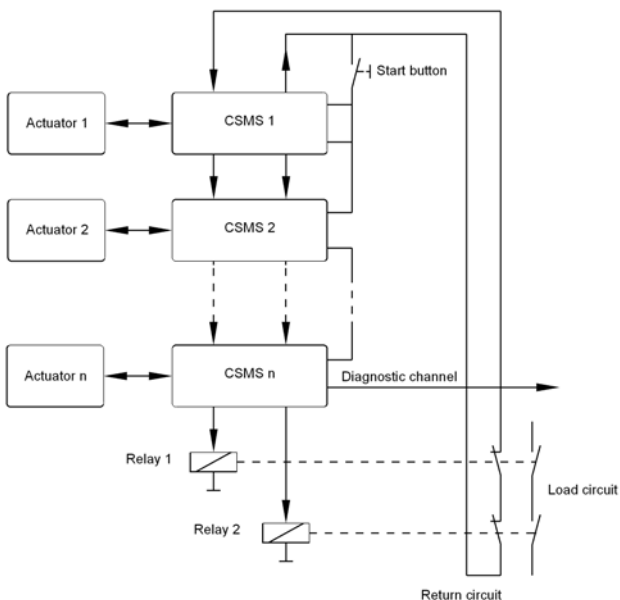
TÜV Nord (being prepared)

Notes

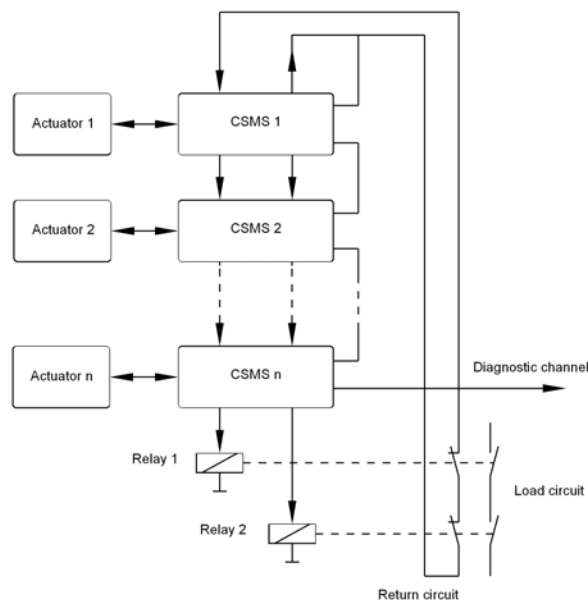
The specified protection classification (IP code) applies only when an appropriate plug connector is used.

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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