

Data sheet SM 022 - Digital output (022-1SD10)

Technical data

| Order no. | 022-1SD10 |
|---|---|
| Туре | SM 022 - Digital output |
| Module ID | 0C82 AE00 |
| General information | |
| Note | - |
| Features | 4x SDO DC 24 V 0.5 A Safety / FSoE |
| Current consumption/power loss | |
| Current consumption from backplane bus | 75 mA |
| Power loss | 1 W |
| Technical data digital outputs | |
| Number of outputs | 4 |
| Cable length, shielded | 1000 m |
| Cable length, unshielded | 600 m |
| Rated load voltage | DC 24 V |
| Permitted range | DC 20.428.8 V |
| Current consumption from power section supply (without load) | 15 mA |
| Total current per group, horizontal configuration, 40°C | 2 A |
| Total current per group, horizontal configuration, 60°C | - |
| Total current per group, vertical configuration | - |
| Output current at signal "1", rated value | 0.5 A |
| Signal logic output | Sourcing output |
| Output delay of "0" to "1" | 100 μs |
| Output delay of "1" to "0" | 175 µs |
| Minimum load current | - |
| Lamp load | 5 W |
| Parallel switching of outputs for redundant control of a load | not possible |
| Parallel switching of outputs for increased power | not possible |
| Actuation of digital input | yes |
| Switching frequency with resistive load | max. 50 Hz |
| Switching frequency with inductive load | max. 0.5 Hz |
| Switching frequency on lamp load | max. 10 Hz |
| Internal limitation of inductive shut-off voltage | L+ (-45 V) |
| Short-circuit protection of output | yes, electronic |
| Trigger level | 1.7 A |
| Number of operating cycle of relay outputs | - |
| Switching capacity of contacts | - |
| Output data size | 4 Bit |
| Status information, alarms, diagnostics | |
| Status display | green LED per channel |
| Interrupts | yes, parameterizable |
| Process alarm | no |



| Diagnostic interrupt | yes, parameterizable |
|------------------------------------|--------------------------------|
| Diagnostic functions | yes, parameterizable |
| Diagnostics information read-out | possible |
| Supply voltage display | green LED |
| Group error display | red SF LED |
| Channel error display | red ERR-LED and yellow ER2-LED |
| Isolation | |
| Between channels | |
| Between channels of groups to | - |
| Between channels and backplane bus | yes |
| Insulation tested with | DC 500 V |
| PWM data | |
| PWM channels | |
| PWM time basis | - |
| Period length | - |
| Minimum pulse width | - |
| Type of output | |
| Safety | |
| Safety protocol | FSoE |
| Safety requirements | SIL CL 3, PL e, Kat 4 |
| Secure user address | 1 - 4095 |
| Watchdog | parameterizable 20ms - 65s |
| Two channels | Each 2 of 4 outputs switchable |
| Test pulse length | parameterizable 10ms - 1s |
| Circuit monitoring | yes |
| Datasizes | |
| Input bytes | 6 |
| Output bytes | 6 |
| Parameter bytes | 16 |
| Diagnostic bytes | 20 |
| Housing | |
| Material | PC / PPE GF10 |
| Mounting | Profile rail 35 mm |
| Mechanical data | |
| Dimensions (WxHxD) | 12.9 mm x 109 mm x 76.5 mm |
| Net weight | 64 g |
| Weight including accessories | 69 g |
| Gross weight | 85 g |
| Environmental conditions | |
| Operating temperature | 0 °C to 60 °C |
| Storage temperature | -25 °C to 70 °C |
| Certifications | |
| UL certification | yes |
| KC certification | yes |
| UKCA certification | yes |
| ChinaRoHS certification | yes |
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