

Data sheet
SM 022 (022-1BD20)
Technical data

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|---|-------------------------|
| Order no. | 022-1BD20 |
| Type | SM 022 |
| Module ID | 0108 AFA0 |
| General information | |
| Note | - |
| Features | 4x DO DC 24 V 2 A |
| Current consumption/power loss | |
| Current consumption from backplane bus | 75 mA |
| Power loss | 0.8 W |
| Technical data digital outputs | |
| Number of outputs | 4 |
| Cable length, shielded | 1000 m |
| Cable length, unshielded | 600 m |
| Rated load voltage | DC 20.4...28.8 V |
| Current consumption from load voltage L+ (without load) | 20 mA |
| Total current per group, horizontal configuration, 40°C | 4 A |
| Total current per group, horizontal configuration, 60°C | 4 A |
| Total current per group, vertical configuration | 4 A |
| Output current at signal "1", rated value | 2 A |
| Output delay of "0" to "1" | 100 µs |
| Output delay of "1" to "0" | 250 µs |
| Minimum load current | - |
| Lamp load | 10 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. 1000 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+ (-52 V) |
| Short-circuit protection of output | yes, electronic |
| Trigger level | 2.7 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 | no |
| Process alarm | no |
| Diagnostic interrupt | no |

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| Diagnostic functions | no |
| Diagnostics information read-out | none |
| Supply voltage display | green LED |
| Group error display | red LED |
| Channel error display | none |

Isolation

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| Between channels | - |
| Between channels of groups to | - |
| Between channels and backplane bus | yes |
| Insulation tested with | DC 500 V |

PWM data

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| PWM channels | - |
| PWM time basis | - |
| Period length | - |
| Minimum pulse width | - |
| Type of output | - |

Safety

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| Safety protocol | - |
| Safety requirements | - |
| Secure user address | - |
| Watchdog | - |
| Two channels | - |
| Test pulse length | - |
| Circuit monitoring | - |

Datasizes

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| Input bytes | 0 |
| Output bytes | 1 |
| Parameter bytes | 0 |
| Diagnostic bytes | 0 |

Housing

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| Material | PPE / PPE GF10 |
| Mounting | Profile rail 35 mm |

Mechanical data

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|------------------------------|----------------------------|
| Dimensions (WxHxD) | 12.9 mm x 109 mm x 76.5 mm |
| Net weight | 58 g |
| Weight including accessories | 58 g |
| Gross weight | 73 g |

Environmental conditions

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|-----------------------|-----------------|
| Operating temperature | 0 °C to 60 °C |
| Storage temperature | -25 °C to 70 °C |

Certifications

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| UL certification | yes |
| KC certification | yes |