

Data sheet

SM 021 - Digital input (021-1DF50)

Technical data

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|---|---|
| Order no. | 021-1DF50 |
| Type | SM 021 - Digital input |
| Module ID | 0025 1F41 |
| General information | |
| Note | - |
| Features | 8x DI DC 24 V Diagnostics function NPN |
| Current consumption/power loss | |
| Current consumption from backplane bus | 53 mA |
| Power loss | 1.25 W |
| Technical data digital inputs | |
| Number of inputs | 8 |
| Cable length, shielded | 1000 m |
| Cable length, unshielded | 600 m |
| Rated voltage power section supply | - |
| Permitted range | - |
| Current consumption from power section supply (without load) | - |
| Input rated voltage | DC 24 V |
| Permitted range | DC 20.4...28.8 V |
| Input voltage for signal "0" | DC 15...28.8 V |
| Input voltage for signal "1" | DC 0...5 V |
| Input voltage hysteresis | - |
| Signal logic input | Sourcing input |
| Frequency range | - |
| Input resistance | - |
| Input capacitance | - |
| Input current for signal "1" | 2.3 mA |
| Connection of Two-Wire-BEROs possible | yes |
| Max. permissible BERO quiescent current | 1.5 mA |
| Input delay of "0" to "1" | parameterizable 100µs - 20ms |
| Input delay of "1" to "0" | parameterizable 100µs - 20ms |
| Number of simultaneously utilizable inputs horizontal configuration | 8 |
| Number of simultaneously utilizable inputs vertical configuration | 8 |
| Input characteristic curve | IEC 61131-2, type 3 |
| Initial data size | 8 Bit |
| Status information, alarms, diagnostics | |
| Status display | green LED per channel |
| Interrupts | yes |
| Process alarm | no |
| Diagnostic interrupt | yes, parameterizable |
| Diagnostic functions | yes |

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| Diagnostics information read-out | possible |
| Module state | green LED |
| Module 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 |

Datasizes

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| Input bytes | 1 |
| Output bytes | 0 |
| Parameter bytes | 12 |
| Diagnostic bytes | 20 |

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 | 57 g |
| Weight including accessories | 57 g |
| Gross weight | 71 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 |
| UKCA certification | yes |
| ChinaRoHS certification | yes |