

Data sheet
FM 050 (050-1BA10)
Technical data

| | |
|---|---|
| Order no. | 050-1BA10 |
| Type | FM 050 |
| Module ID | 08C2 3801 |
| General information | |
| Note | - |
| Features | 1x Counter 32 Bit (AB), DC 5 V Up to 2 MHz (difference signal) |
| Current consumption/power loss | |
| Current consumption from backplane bus | 75 mA |
| Power loss | 0.85 W |
| Technical data digital inputs | |
| Number of inputs | - |
| Cable length, shielded | 100 m |
| Cable length, unshielded | - |
| Rated load voltage | DC 20.4...28.8 V |
| Reverse polarity protection of rated load voltage | - |
| Current consumption from load voltage L+ (without load) | 20 mA |
| Rated value | - |
| Input voltage for signal "0" | Differential signal RS422 |
| Input voltage for signal "1" | Differential signal RS422 |
| Input voltage hysteresis | - |
| Frequency range | - |
| Input resistance | 120 Ohm |
| Input current for signal "1" | - |
| Connection of Two-Wire-BEROs possible | - |
| Max. permissible BERO quiescent current | - |
| Input delay of "0" to "1" | 0.8 µs |
| Input delay of "1" to "0" | 0.8 µs |
| Number of simultaneously utilizable inputs horizontal configuration | - |
| Number of simultaneously utilizable inputs vertical configuration | - |
| Input characteristic curve | - |
| Initial data size | 8 Byte |
| Technical data digital outputs | |
| Number of outputs | - |
| Cable length, shielded | - |
| Cable length, unshielded | - |
| Rated load voltage | - |
| Current consumption from load voltage L+ (without load) | - |
| Output delay of "0" to "1" | - |
| Output delay of "1" to "0" | - |
| Minimum load current | - |

| | |
|---|---------|
| Lamp load | - |
| Parallel switching of outputs for redundant control of a load | - |
| Parallel switching of outputs for increased power | - |
| Actuation of digital input | - |
| Switching frequency with resistive load | - |
| Switching frequency with inductive load | - |
| Switching frequency on lamp load | - |
| Internal limitation of inductive shut-off voltage | - |
| Short-circuit protection of output | - |
| Trigger level | - |
| Number of operating cycle of relay outputs | - |
| Switching capacity of contacts | - |
| Output data size | 10 Byte |

Technical data counters

| | |
|--------------------------|---------|
| Number of counters | 1 |
| Counter width | 32 Bit |
| Maximum input frequency | 500 kHz |
| Maximum count frequency | 2 MHz |
| Mode incremental encoder | yes |
| Mode pulse / direction | yes |
| Mode pulse | - |
| Mode frequency counter | - |
| Mode period measurement | - |
| Gate input available | - |
| Latch input available | - |
| Reset input available | yes |
| Counter output available | - |

Status information, alarms, diagnostics

| | |
|----------------------------------|----------------------|
| Status display | yes |
| Interrupts | yes, parameterizable |
| Process alarm | yes, parameterizable |
| Diagnostic interrupt | yes, parameterizable |
| Diagnostic functions | yes, parameterizable |
| Diagnostics information read-out | possible |
| Module state | green LED |
| Module error display | red LED |
| Channel error display | none |

Isolation

| | |
|---|-----|
| Between channels | - |
| Between channels of groups to | - |
| Between channels and backplane bus | yes |
| Between channels and power supply | - |
| Max. potential difference between circuits | - |
| Max. potential difference between inputs (Ucm) | - |
| Max. potential difference between Mana and Mintern (Uiso) | - |
| Max. potential difference between inputs and Mana (Ucm) | - |
| Max. potential difference between inputs and Mintern (Uiso) | - |
| Max. potential difference between Mintern and outputs | - |

| | |
|------------------------|----------|
| Insulation tested with | DC 500 V |
|------------------------|----------|

Datasizes

| | |
|------------------|----|
| Input bytes | 8 |
| Output bytes | 10 |
| Parameter bytes | 23 |
| Diagnostic bytes | 20 |

Housing

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

Mechanical data

| | |
|------------------------------|----------------------------|
| Dimensions (WxHxD) | 12.9 mm x 109 mm x 76.5 mm |
| Net weight | 58 g |
| Weight including accessories | 58 g |
| Gross weight | 72 g |

Environmental conditions

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

Certifications

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