


## Data sheet

### FM 050 (050-1BA00)

#### Technical data

<b>Order no.</b>	<b>050-1BA00</b>
Type	FM 050
Module ID	08C1 3800
<b>General information</b>	
Note	-
Features	1 Counter 32 Bit (AB) DC 24 V
<b>Current consumption/power loss</b>	
Current consumption from backplane bus	75 mA
Power loss	1 W
<b>Technical data digital inputs</b>	
Number of inputs	5
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	DC 20.4...28.8 V
Input voltage for signal "0"	DC 0...5 V
Input voltage for signal "1"	DC 15...28.8 V
Input voltage hysteresis	-
Frequency range	-
Input resistance	-
Input current for signal "1"	3 mA
Connection of Two-Wire-BEROs possible	
Max. permissible BERO quiescent current	0.5 mA
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	5
Number of simultaneously utilizable inputs vertical configuration	5
Input characteristic curve	IEC 61131-2, type 1
Initial data size	12 Byte
<b>Technical data digital outputs</b>	
Number of outputs	1
Cable length, shielded	100 m
Cable length, unshielded	100 m
Rated load voltage	DC 20.4...28.8 V
Current consumption from load voltage L+ (without load)	-
Output delay of "0" to "1"	30 µs

Output delay of "1" to "0"	30 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	✓
Switching frequency with resistive load	max. 10 kHz
Switching frequency with inductive load	max. 0.5 Hz
Switching frequency on lamp load	max. 10 kHz
Internal limitation of inductive shut-off voltage	L+ (-52 V)
Short-circuit protection of output	yes, electronic
Trigger level	1 A
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	100 kHz
Maximum count frequency	400 kHz
Mode incremental encoder	✓
Mode pulse / direction	✓
Mode pulse	-
Mode frequency counter	-
Mode period measurement	-
Gate input available	✓
Latch input available	✓
Reset input available	✓
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	✓
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	12
Output bytes	10
Parameter bytes	25
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
Weight	60 g

#### Environmental conditions

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

#### Certifications

UL508 certification	yes
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