

Data sheet

FM 050 - Counter module (050-1BA10)

Technical data

Order no.	050-1BA10
Туре	FM 050 - Counter module
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 20.428.8 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	
Signal logic input	
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	-

YASKAWA

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 yes, parameterizable
Process alarm Diagnostic interrupt	
	yes, parameterizable
Diagnostic interrupt	yes, parameterizable yes, parameterizable
Diagnostic interrupt Diagnostic functions	yes, parameterizable yes, parameterizable yes, parameterizable
Diagnostic interrupt Diagnostic functions Diagnostics information read-out	yes, parameterizable yes, parameterizable yes, parameterizable possible
Diagnostic interrupt Diagnostic functions Diagnostics information read-out Module state	yes, parameterizable yes, parameterizable yes, parameterizable possible green LED
Diagnostic interrupt Diagnostic functions Diagnostics information read-out Module state Module error display	yes, parameterizable yes, parameterizable yes, parameterizable possible green LED red LED
Diagnostic interrupt Diagnostic functions Diagnostics information read-out Module state Module error display Channel error display	yes, parameterizable yes, parameterizable yes, parameterizable possible green LED red LED
Diagnostic interrupt Diagnostic functions Diagnostics information read-out Module state Module error display Channel error display Isolation	yes, parameterizable yes, parameterizable yes, parameterizable possible green LED red LED
Diagnostic interrupt Diagnostic functions Diagnostics information read-out Module state Module error display Channel error display Isolation Between channels	yes, parameterizable yes, parameterizable yes, parameterizable possible green LED red LED
Diagnostic interrupt Diagnostic functions Diagnostics information read-out Module state Module error display Channel error display Isolation Between channels Between channels of groups to	yes, parameterizable yes, parameterizable yes, parameterizable possible green LED red LED none
Diagnostic interrupt Diagnostic functions Diagnostics information read-out Module state Module error display Channel error display Isolation Between channels Between channels of groups to Between channels and backplane bus	yes, parameterizable yes, parameterizable yes, parameterizable possible green LED red LED none
Diagnostic interrupt Diagnostic functions Diagnostics information read-out Module state Module error display Channel error display Isolation Between channels Between channels of groups to Between channels and backplane bus Between channels and power supply	yes, parameterizable yes, parameterizable yes, parameterizable possible green LED red LED none - - yes
Diagnostic interrupt Diagnostic functions Diagnostics information read-out Module state Module error display Channel error display Isolation Between channels Between channels of groups to Between channels and backplane bus Between channels and power supply Max. potential difference between circuits	yes, parameterizable yes, parameterizable possible green LED red LED none - - yes -
Diagnostic interrupt Diagnostic functions Diagnostics information read-out Module state Module error display Channel error display Isolation Between channels Between channels of groups to Between channels and backplane bus Between channels and power supply Max. potential difference between inputs (Ucm)	yes, parameterizable yes, parameterizable possible green LED red LED none - - yes - - -
Diagnostic interrupt Diagnostic functions Diagnostics information read-out Module state Module error display Channel error display Isolation Between channels Between channels of groups to Between channels and backplane bus Between channels and power supply Max. potential difference between inputs (Ucm) Max. potential difference between Mana and Mintern (Uiso)	yes, parameterizable yes, parameterizable possible green LED red LED none - - yes - - - - - - - -

YASKAWA

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
UKCA certification	yes
ChinaRoHS certification	yes