

Data sheet

FM 050 (050-1BA00)

Technical data

Order no.	050-1BA00
Туре	FM 050
Module ID	08C1 3800
General information	
Note	-
Features	1 Counter 32 Bit (AB) DC 24 V
Current consumption/power loss	
Current consumption from backplane bus	75 mA
Power loss	1 W
Technical data digital inputs	
Number of inputs	5
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	DC 20.428.8 V
Input voltage for signal "0"	DC 05 V
Input voltage for signal "1"	DC 1528.8 V
Input voltage hysteresis	-
Frequency range	
Input resistance	
Input current for signal "1"	3 mA
Connection of Two-Wire-BEROs possible	yes
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	5
configuration	
Number of simultaneously utilizable inputs vertical configuration	5
Input characteristic curve	IEC 61131-2, type 1
Initial data size	12 Byte
Technical data digital outputs	
Number of outputs	1
Cable length, shielded	100 m
Cable length, unshielded	100 m
Rated load voltage	DC 20.428.8 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	A YASKAWA COMPANY
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. 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	yes	
Mode pulse / direction	yes	
Mode pulse	-	
Mode frequency counter	-	
Mode period measurement	-	
Gate input available	yes	
Latch input available	yes	
Reset input available	yes	
Counter output available	yes	
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)	-	A YASKAWA COMPANY
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		
UL certification	yes	
KC certification	yes	