

Data sheet

FM 050 (050-1BB00)

Technical data

Type FM 050 Module ID 08C3 380A General information Note - Features 2 Counter 32 Bit (AB) CC 24 V Current consumption/power loss Current consumption from backplane bus 75 mA Power loss 0.9 W Technical data digital inputs Number of inputs 4 Cable length, shielded 100 m Cable length, unshielded - Cable length, unshielded - Cable length protection of rated load voltage Current consumption from load voltage - Current consumption from load voltage + L+ (without load) 15 mA Rated value DC 20.428.8 V Input voltage for signal "1" DC 05 V Input voltage for signal "1" DC 1528.8 V Input voltage hysteresis - Frequency range - Input current for signal "1" A A A A A A A A A A A A A A A A A A	Order no.	050-1BB00
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Rated value Input voltage for signal "0" Input voltage for signal "1" DC 05 V Input voltage for signal "1" DC 1528.8 V Input voltage hysteresis - Frequency range Input current for signal "1" 3 mA Connection of Two-Wire-BEROs possible Max. permissible BERO quiescent current Input delay of "0" to "1" 0.8 µs Input delay of "0" to "1" 0.8 µs Number of simultaneously utilizable inputs horizontal configuration Number of simultaneously utilizable inputs vertical configuration Input data size Input data size Input data size	Reverse polarity protection of rated load voltage	-
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 "0" to "0" 0.8 µs Number of simultaneously utilizable inputs horizontal configuration 4 Input characteristic curve IEC 61131-2, type 1 Initial data size 12 Byte	Current consumption from load voltage L+ (without load)	15 mA
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 configuration Number of simultaneously utilizable inputs vertical configuration Input characteristic curve IEC 61131-2, type 1 Initial data size 12 Byte	Rated value	DC 20.428.8 V
Input voltage hysteresis Frequency range Input resistance Input current for signal "1" 3 mA Connection of Two-Wire-BEROs possible Wax. 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 IEC 61131-2, type 1 Initial data size Input delay of "2" to "1" Input characteristic curve IEC 61131-2, type 1	Input voltage for signal "0"	DC 05 V
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 configuration Number of simultaneously utilizable inputs vertical configuration Input characteristic curve IEC 61131-2, type 1 Initial data size 12 Byte	Input voltage for signal "1"	DC 1528.8 V
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 configuration 4 Input characteristic curve IEC 61131-2, type 1 Initial data size 12 Byte	Input voltage hysteresis	-
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 configuration 4 Input characteristic curve IEC 61131-2, type 1 Initial data size 12 Byte	Frequency range	-
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 Number of simultaneously utilizable inputs vertical configuration 4 Input characteristic curve IEC 61131-2, type 1 Initial data size 12 Byte	Input resistance	-
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 4 Number of simultaneously utilizable inputs vertical configuration 4 Input characteristic curve IEC 61131-2, type 1 Initial data size 12 Byte	Input current for signal "1"	3 mA
Input delay of "0" to "1" Input delay of "1" to "0" Number of simultaneously utilizable inputs horizontal configuration Number of simultaneously utilizable inputs vertical configuration Liput characteristic curve IEC 61131-2, type 1 Initial data size 12 Byte	Connection of Two-Wire-BEROs possible	yes
Input delay of "1" to "0" Number of simultaneously utilizable inputs horizontal configuration Number of simultaneously utilizable inputs vertical configuration 4 Input characteristic curve IEC 61131-2, type 1 Initial data size 12 Byte	Max. permissible BERO quiescent current	0.5 mA
Number of simultaneously utilizable inputs horizontal configuration Number of simultaneously utilizable inputs vertical configuration Input characteristic curve IEC 61131-2, type 1 Initial data size 12 Byte	Input delay of "0" to "1"	0.8 µs
Number of simultaneously utilizable inputs vertical configuration Input characteristic curve IEC 61131-2, type 1 Initial data size 12 Byte	Input delay of "1" to "0"	0.8 µs
Input characteristic curve IEC 61131-2, type 1 Initial data size 12 Byte		4
Initial data size 12 Byte	Number of simultaneously utilizable inputs vertical configuration	4
·	Input characteristic curve	IEC 61131-2, type 1
Technical data digital outputs	Initial data size	12 Byte
	Technical data digital outputs	
Number of outputs -	Number of outputs	-
Cable length, shielded -	Cable length, shielded	-
Cable length, unshielded -	Cable length, unshielded	-
Rated load voltage -	Rated load voltage	-
Current consumption from load voltage L+ (without load) -	Current consumption from load voltage L+ (without load)	-
Output delay of "0" to "1" -	Output delay of "0" to "1"	-



Output delay of "1" to "0"	A YASKAWA COMPANY
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	12 Byte
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Technical data counters	
Number of counters	2
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	-
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	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)	-
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A YASKAWA COMPANY
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DC 500 V
12
12
45
20
PPE / PPE GF10
Profile rail 35 mm
12.9 mm x 109 mm x 76.5 mm
60 g
0 °C to 60 °C
-25 °C to 70 °C
yes
yes