YASKAWA

Data sheet
SM 021 - Digital input (021-1SD00)

Technical data

Order no.	021-1SD00
Type	SM 021 - Digital input
Module ID	0C41 2E00
General information	
Note	-
Features	4x SDI DC 24 V Safety / PROFIsafe
Current consumption/power loss	
Current consumption from backplane bus	95 mA
Power loss	0.8 W
Technical data digital inputs	
Number of inputs	4
Cable length, shielded	330 m
Cable length, unshielded	330 m
Rated voltage power section supply	-
Permitted range	-
Current consumption from power section supply (without load)	2 mA
Input rated voltage	DC 24 V
Permitted range	DC 20.4...28.8 V
Input voltage for signal "0"	DC 0...5 V
Input voltage for signal "1"	DC 11...28.8 V
Input voltage hysteresis	-
Signal logic input	Sinking input
Frequency range	-
Input resistance	-
Input capacitance	100 nF
Input current for signal "1"	3 mA
Connection of Two-Wire-BEROs possible	yes
Max. permissible BERO quiescent current	1.5 mA
Input delay of "0" to "1"	parameterizable 1ms - 1s
Input delay of "1" to "0"	parameterizable 1ms - 1s
Number of simultaneously utilizable inputs horizontal configuration	4
Number of simultaneously utilizable inputs vertical configuration	4
Input characteristic curve	IEC 61131-2, type 3
Initial data size	4 Bit
Status information, alarms, diagnostics	
Status display	green LED per channel
Interrupts	yes, parameterizable
Process alarm	no
Diagnostic interrupt	yes, parameterizable
Diagnostic functions	yes, parameterizable

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Diagnostics information read-out	possible
Module state	green LED
Module error display	red LED
Channel error display	red ERR-LED and yellow ER2-LED
Isolation	
Between channels	-
Between channels of groups to	-
Between channels and backplane bus	yes
Insulation tested with	DC 500 V
Safety	
Safety protocol	PROFIsafe V2
Safety requirements	SIL CL 3, PL e, Kat 4
Secure user address	1 - 4095
Watchdog	parameterizable 10ms - 1s
Two channels	Each 2 of 4 inputs switchable
Test pulse outputs	4
Datasizes	
Input bytes	5
Output bytes	5
Parameter bytes	44
Diagnostic bytes	20
Housing	
Material	PC / PPE GF10
Mounting	Profile rail 35 mm
Mechanical data	
Dimensions (WxHxD)	12.9 mm x 109 mm x 76.5 mm
Net weight	63 g
Weight including accessories	68 g
Gross weight	84 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

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