

Data sheet SM 323 (323-1BH00)

Technical data

Order no.	323-1BH00
Туре	SM 323
General information	
Note	-
Features	16x DIO DC 24 V 1 A Diagnostic function For 20 pole front connector
SPEED-Bus	-
Current consumption/power loss	
Current consumption from backplane bus	130 mA
Power loss	4 W
Technical data digital inputs	
Number of inputs	16
Cable length, shielded	1000 m
Cable length, unshielded	600 m
Rated load voltage	DC 24 V
Current consumption from load voltage L+ (without load)	30 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	-
Signal logic input	Sinking input
Frequency range	-
Input resistance	-
Input current for signal "1"	7 mA
Connection of Two-Wire-BEROs possible	yes
Max. permissible BERO quiescent current	1.5 mA
Input delay of "0" to "1"	3 ms
Input delay of "1" to "0"	3 ms
Input filter delay	-
Number of simultaneously utilizable inputs horizontal configuration	16
Number of simultaneously utilizable inputs vertical configuration	16
Input characteristic curve	IEC 61131-2, type 1
Initial data size	2 Byte
Technical data digital outputs	
Number of outputs	16
Cable length, shielded	1000 m
Cable length, unshielded	600 m
Rated load voltage	DC 24 V
Reverse polarity protection of rated load voltage	yes
Current consumption from load voltage L+ (without load)	30 mA

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Signal logic output Output delay of "0" to "1" 150 µs Minimum load current	Output current at signal "1", rated value	1 A
Dutput dailay of **1* to *0**	Signal logic output	Sourcing output
Minimum load current - 5 Lamp load	Output delay of "0" to "1"	150 µs
Lamp load 5 W Parallel switching of outputs for redundant control of a load possible (only outputs group) Parallel switching of outputs for increased power not possible Actuation of digital Input yes Switching frequency with resistive load max. 1000 Hz Switching frequency with resistive load max. 0.5 Hz Switching frequency on lamp load max. 0.5 Hz Switching frequency on lamp load max. 0.5 Hz Switching frequency on lamp load max. 0.6 Hz Internal limitation of inductive shut-off voltage L+ (52 V) Short-circuit protection of output yes, electronic Trigger level 1.5 A Number of operating cycle of relay outputs - Switching capacity of contacts - Output data size 2 Byte Status information, alarms, diagnostics Status display green LED per channel Interrupts no Diagnostic interrupt no Diagnostic information read-out none Supply voltage display green LED per group Group error display red SF LED Channel error display red SF LED Channel error display red SF LED Channel error display to see the see that the see tha	Output delay of "1" to "0"	100 μs
Parallel switching of outputs for redundant control of a load possible (only outputs group) Parallel switching of outputs for increased power not possible Actuation of digital input yes Switching frequency with resistive load max. 0.5 Hz Switching frequency with inductive load max. 0.5 Hz Switching frequency with inductive load max. 0.5 Hz Switching frequency on lamp load max. 0.10 Hz Internal limitation of inductive shut-off voltage L+ (-52 V) Short-circuit; protection of output yes, electronic Trigger level 1.5 A Number of operating cycle of relay outputs - Switching capacity of contacts - Output data size 2 Byte Status information, alarms, diagnostics Status display green LED per channel Interrupts no Diagnostic interrupt no Diagnostic interrupt no Diagnostic interrupt no Diagnostic interrupt none Supply voltage display green LED per group Group error display red SF LED Channel error display red SF LED Channel error display none Setween channels groups to 8 Between channels groups to 8 Between channels and backplane bus yes Between thannels and backplane bus yes Between channels and backplane bus yes Between thannels and backplane bus yes Between thannels and backplane bus yes Between thannels and backplane bus yes Between channels and backplane bus yes Between thannels and backplane bus yes Between thannels and backplane bus yes Between thannels and backplane bus yes Between channels	Minimum load current	•
Parallel switching of outputs for increased power Actuation of digital input Switching frequency with resistive load max. 1000 Hz Switching frequency with inductive load max. 0.5 Hz Switching frequency on lamp load max. 0.5 Hz Switching frequency with inductive shut-off voltage L+ (-\$ZV) Short-circuit protection of output Tigger level 1.5 A Number of operating cycle of relay outputs - Switching capacity of contacts - Output data size 2 Byto Status display Green LED per channel Interrupts no Diagnostic information, alarms, diagnostics Interrupts no Diagnostic interrupt no Diagnostic interrupt no Diagnostic information read-out none Diagnostic information read-out none Supply voltage display Group error display red SF LED Channel error display none Isolation Between channels of groups to 8 Between channels of groups to 8 Between channels and backplane bus yes Between channels and backplane bus yes Between areas - Insulation tested with DC 500 V Datasizes Input bytes 2 Parameter bytes 0 Diagnostic bytes 0 Diagnostic bytes 0 PPE Mounting Rail System 300 Mechanical data Dimensions (WwhtkD) 40 mm x 125 mm x 120 mm Net weight Net weight 1	Lamp load	5 W
Actuation of digital input yes Switching frequency with resistive load max. 1000 Hz Switching frequency with inductive load max. 0.5 Hz Switching frequency on lamp load max. 10 Hz Internal limitation of inductive shut-off voltage L+ (-52 V) Short-circuit protection of output yes, electronic Trigger level 1.5 A Number of operating cycle of relay outputs - Switching capacity of contacts - Output data size 2 Byte Status information, afarms, diagnostics Status information, afarms, diagnostics Status information, afarms, diagnostics Status information, afarms, diagnostics Interrupts no Diagnostic interrupt no Diagnostic information read-out none Supply voltage display green LED per group Group error display red SF LED Channel error display red SF LED Channel error display tone Isolation Between channels of groups to 8 Between channels of groups to 8 Between channels and backplane bus yes Between channels of bytes Output bytes 2 Parameter bytes 0 Diagnostic pites Diagnostic pites Diagnostic pites Diagnostic pites Diagnostic pites Deficial pite	Parallel switching of outputs for redundant control of a load	possible (only outputs group)
Switching frequency with resistive load max. 0.00 Hz Switching frequency with inductive load max. 0.5 Hz Switching frequency on lamp load max. 10 Hz Internal limitation of inductive shut-off voltage L+ (-52 V) Short-circuit protection of output yes, electronic Trigger level 1.5 A Number of operating cycle of relay outputs - Switching capacity of contacts - Output data size 2. Byte Status information, alarms, diagnostics Status information, alarms, diagnostics Status information, alarms, diagnostics Status information in no Diagnostic interrupt no Diagnostic functions no Diagnostic functions no Diagnostic functions no Supply voltage display green LED per group Group error display red SF LED Channel error display none Isolation Between channels of groups to 8 Between channels of groups to 8 Between channels and backplane bus yes Between areas - Insulaton tested with DC 500 V Datasizes Insulaton tested with PC 500 V Datasizes Insulator PPE Mounting Rail System 300 Mechanical data Dimensions (WxHxD) 40 mm x 125 mm x 120 mm Met weight including accessories Gross weight -	Parallel switching of outputs for increased power	not possible
Switching frequency with inductive load max. 10 Hz Switching frequency on lamp load max. 10 Hz Internal limitation of Inductive shut-off voltage L+ (-62 V) Short-circuit protection of output yess, electronic Trigger level 1.5 A Number of operating cycle of relay outputs - Switching capacity of contacts - Output data size 2 Byte Status information, alarms, diagnostics Status display green LED per channel Interrupts no Diagnostic interrupt no Diagnostic interrupt no Diagnostic information read-out none Supply voltage display green LED per group Group error display red SF LED Channel error display red SF LED Channel error display none Between channels yes Between channels and backplane bus 9 Between green gre	Actuation of digital input	yes
Switching frequency on lamp load max. 10 Hz Internal limitation of inductive shut-off voltage L+ (-52 V) Short-circuit protection of output yes, electronic Trigger level 1.5 A Number of operating cycle of relay outputs - Switching capacity of contacts - Output data size 2 Byte Status information, alarms, diagnostics Status display green LED per channel Interrupts no Process alarm no Diagnostic interrupt no Diagnostic information read-out none Supply voltage display green LED per group Group error display red SF LED Channel error display red SF LED Setween channels yes Between channels yes Between channels of groups to 8 Between channels and backplane bus yes Between areas - Insulation tested with DC 500 V Datasizes Input bytes 2 Output bytes 2 Parameter bytes 0 Diagnostic bytes Material PPE Mounting Rail System 300 Mechanical data Dimensions (WAHAD) 40 mm x 125 mm x 120 mm Met weight Met weight Met weight Met weight Dimensions (WAHAD) 40 mm x 125 mm x 120 mm Met weight Weight including accessories Gross weight	Switching frequency with resistive load	max. 1000 Hz
Internal limitation of inductive shut-off voltage	Switching frequency with inductive load	max. 0.5 Hz
Short-circuit protection of output yes, electronic Trigger level 1.5 A Number of operating cycle of relay outputs - Switching capacity of contacts - Output data size 2 Byte Status information, alarms, diagnostics Status display green LED per channel Interrupts no Diagnostic interrupt no Diagnostic interrupt no Diagnostic information read-out none Supply voltage display green LED per group Group error display red SF LED Channel error display none Isolation Between channels of groups to 8 Between channels and backplane bus yes Between areas - Insulation tested with DC 500 V Datasizes Input bytes 2 Output bytes 2 Parameter bytes 0 Diagnostic bytes 0 Diagnostic bytes 0 Mechanical data Dimensions (WxHxD) 40 mm x 125 mm x 120 mm Weight including accessories - Gross weight -	Switching frequency on lamp load	max. 10 Hz
Trigger level 1.5 A Number of operating cycle of relay outputs - Switching capacity of contacts - Output data size 2 Byte Status information, alarms, diagnostics Status display green LED per channel Interrupts no Diagnostic interrupt no Diagnostic functions no Diagnostic functions no Diagnostic information read-out none Supply voltage display green LED per group Group error display red SF LED Channel error display none Between channels yes Between channels of groups to 8 Between channels and backplane bus yes Between areas - Insulation tested with DC 500 V Datasizes Input bytes 2 Output bytes 2 Diagnostic bytes 0 Diagnostic byt	Internal limitation of inductive shut-off voltage	L+ (-52 V)
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Switching capacity of contacts Output data size 2 Byte Status information, alarms, diagnostics Status display green LED per channel Interrupts no Process alarm no Diagnostic interrupt no Diagnostic interrupt no Diagnostic functions no Diagnostic sylvatiage display green LED per group Group error display red SF LED Channel error display none Supply voltage display green LED per group Group error display red SF LED Channel error display none Setween channels between channels getween channels yes Between channels of groups to 8 Between areas - Insulation tested with DC 500 V Datasizes Unput bytes 2 Parameter bytes 0 Diagnostic bytes 0 Housing Material PPE Mounting Raii System 300 Mechanical data Dimensions (WxHxD) Net weight 230 g Weight including accessories - Gross weight	Trigger level	1.5 A
Output data size 2 Byte Status information, alarms, diagnostics Status display green LED per channel Interrupts no Diagnostic interrupt no Diagnostic interrupt no Diagnostic interrupt no Diagnostic interrupt no Supply voltage display green LED per group Group error display red SF LED Channel error display none Isolation Between channels groups to 8 Between channels and backplane bus yes Between areas - Insulation tested with DC 500 V Datasizes Input bytes 2 Output bytes 2 Parameter bytes 0 Diagnostic bytes 0 Meterial PPE Mounting Rail System 300 Weight including accessories - Gross weight Gross weight	Number of operating cycle of relay outputs	-
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Status display green LED per channel Interrupts no Process alarm no Diagnostic interrupt no Diagnostic functions no Diagnostic sinformation read-out none Supply voltage display green LED per group Group error display red SF LED Channel error display none Isolation Between channels yes Between channels of groups to 8 Between areas - Insulation tested with DC 500 V Datasizes Input bytes 2 Output bytes 2 Parameter bytes 0 Diagnostic bytes 0 Material PPE Mounting Rail System 300 Mechanical data Dimensions (WxHxD) 40 mm x 125 mm x 120 mm Net weight 100 Group error display red SF LED No Diagnostic bytes 1 Diagnostic bytes 1 Dimensions (WxHxD) 40 mm x 125 mm x 120 mm Net weight 230 g Weight including accessories - Gross weight -	Output data size	2 Byte
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Process alarm no Diagnostic interrupt no Diagnostic functions no Diagnostic functions no Diagnostic functions no Diagnostics information read-out none Supply voltage display green LED per group Group error display red SF LED Channel error display none Isolation Between channels yes Between channels of groups to 8 Between channels and backplane bus yes Between areas - Insulation tested with DC 500 V Datasizes Input bytes 2 Quiput bytes 2 Parameter bytes 0 Diagnostic bytes 0 Diagnostic bytes 0 Wechanical data Dimensions (WxHxD) 40 mm x 125 mm x 120 mm Net weight 100 mm s 125 mm x 120 mm Net weight 100 me 100 mm	Status display	green LED per channel
Diagnostic interrupt no Diagnostic functions no Diagnostics information read-out none Supply voltage display green LED per group Group error display red SF LED Channel error display none Isolation Between channels yes Between channels of groups to 8 Between channels and backplane bus yes Between areas - Insulation tested with DC 500 V Datasizes Input bytes 2 Output bytes 2 Parameter bytes 0 Diagnostic bytes 0 Housing Material PPE Mounting Rail System 300 Mechanical data Dimensions (WxHxD) 40 mm x 125 mm x 120 mm Net weight 230 g Weight including accessories - Gross weight -	Interrupts	no
Diagnostic functions no Diagnostics information read-out none Supply voltage display green LED per group Group error display red SF LED Channel error display none Isolation Between channels yes Between channels of groups to 8 Between channels and backplane bus yes Between areas - Insulation tested with DC 500 V Datasizes Input bytes 2 Output bytes 2 Parameter bytes 0 Diagnostic bytes 0 Housing Material PPE Mounting Rail System 300 Mechanical data Dimensions (WxHxD) 40 mm x 125 mm x 120 mm Net weight 102 ms 125 mm x 120 mm Net weight Gross weight	Process alarm	no
Diagnostics information read-out none Supply voltage display green LED per group Group error display red SF LED Channel error display none Isolation Between channels yes Between channels of groups to 8 Between channels and backplane bus yes Between areas - Insulation tested with DC 500 V Datasizes Input bytes 2 Output bytes 2 Parameter bytes 0 Diagnostic bytes 0 Meusing Material PPE Mounting Rail System 300 Mechanical data Dimensions (WxHxD) 40 mm x 125 mm x 120 mm Net weight 1000 Group SF LED Group Weight including accessories Gross weight -	Diagnostic interrupt	no
Supply voltage display green LED per group Group error display red SF LED Channel error display none Isolation Between channels yes Between channels of groups to 8 Between channels and backplane bus yes Between areas Insulation tested with DC 500 V Datasizes Input bytes 2 Output bytes 2 Parameter bytes 0 Diagnostic bytes 0 Housing Material PPE Mounting Rail System 300 Mechanical data Dimensions (WxHxD) 40 mm x 125 mm x 120 mm Net weight 230 g Weight including accessories Gross weight -	Diagnostic functions	no
Group error display red SF LED Channel error display none Isolation Between channels yes Between channels of groups to 8 Between channels and backplane bus yes Between areas - Insulation tested with DC 500 V Datasizes Input bytes 2 Output bytes 2 Parameter bytes 0 Diagnostic bytes 0 Housing Material PPE Mounting Rail System 300 Mechanical data Dimensions (WxHxD) 40 mm x 125 mm x 120 mm Net weight 1-20 mm Metical SF LED none 8 8 Between channels yes 8 8 Between channels bytes 9 C 500 V D 500 V D 500 V D 600 V D 600 V D 700 V D 7	Diagnostics information read-out	none
Channel error display none Isolation Between channels yes Between channels of groups to 8 Between channels and backplane bus yes Between areas - Insulation tested with DC 500 V Datasizes Input bytes 2 Output bytes 2 Parameter bytes 0 Diagnostic bytes 0 Housing Material PPE Mounting Rail System 300 Mechanical data Dimensions (WxHxD) 40 mm x 125 mm x 120 mm Net weight 230 g Weight including accessories - Gross weight -	Supply voltage display	green LED per group
Solation	Group error display	red SF LED
Between channels yes Between channels of groups to 8 Between channels and backplane bus yes Between areas - Insulation tested with DC 500 V Datasizes Input bytes 2 Output bytes 2 Parameter bytes 0 Diagnostic bytes 0 Housing Material PPE Mounting Rail System 300 Mechanical data Dimensions (WxHxD) 40 mm x 125 mm x 120 mm Net weight 230 g Weight including accessories - Gross weight -	Channel error display	none
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Between channels and backplane bus Between areas - Insulation tested with DC 500 V Datasizes Input bytes 2 Output bytes 2 Parameter bytes 0 Diagnostic bytes 0 Housing Material PPE Mounting Rail System 300 Mechanical data Dimensions (WxHxD) A0 mm x 125 mm x 120 mm Net weight PGoss weight - Gross weight -	Between channels	yes
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Insulation tested with DC 500 V Datasizes Input bytes 2 Output bytes 2 Parameter bytes 0 Diagnostic bytes 0 Housing Material PPE Mounting Rail System 300 Mechanical data Dimensions (WxHxD) 40 mm x 125 mm x 120 mm Net weight 230 g Weight including accessories - Gross weight -	Between channels and backplane bus	yes
Input bytes 2 Output bytes 2 Parameter bytes 0 Diagnostic bytes 0 Housing Material PPE Mounting Rail System 300 Mechanical data Dimensions (WxHxD) 40 mm x 125 mm x 120 mm Net weight 230 g Weight including accessories - Gross weight -	Between areas	-
Input bytes 2 Output bytes 2 Parameter bytes 0 Diagnostic bytes 0 Housing Material PPE Mounting Rail System 300 Mechanical data Dimensions (WxHxD) 40 mm x 125 mm x 120 mm Net weight 230 g Weight including accessories - Gross weight -	Insulation tested with	DC 500 V
Output bytes 2 Parameter bytes 0 Diagnostic bytes 0 Housing Material PPE Mounting Rail System 300 Mechanical data Dimensions (WxHxD) 40 mm x 125 mm x 120 mm Net weight 230 g Weight including accessories - Gross weight -	Datasizes	
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Diagnostic bytes 0 Housing Material PPE Mounting Rail System 300 Mechanical data Dimensions (WxHxD) 40 mm x 125 mm x 120 mm Net weight 230 g Weight including accessories - Gross weight -	Output bytes	2
Housing Material PPE Mounting Rail System 300 Mechanical data Dimensions (WxHxD) 40 mm x 125 mm x 120 mm Net weight 230 g Weight including accessories - Gross weight -	Parameter bytes	0
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Mounting Rail System 300 Mechanical data Dimensions (WxHxD) 40 mm x 125 mm x 120 mm Net weight 230 g Weight including accessories - Gross weight -	Housing	
Mechanical data Dimensions (WxHxD) 40 mm x 125 mm x 120 mm Net weight 230 g Weight including accessories - Gross weight -	Material	PPE
Dimensions (WxHxD) 40 mm x 125 mm x 120 mm Net weight 230 g Weight including accessories - Gross weight -	Mounting	Rail System 300
Net weight 230 g Weight including accessories - Gross weight -	Mechanical data	
Net weight 230 g Weight including accessories - Gross weight -	Dimensions (WxHxD)	40 mm x 125 mm x 120 mm
Weight including accessories - Gross weight -		
Gross weight -		-
		-



Operating temperature	0 °C to 60 °C
Storage temperature	-25 °C to 70 °C
Certifications	
UL certification	yes
KC certification	yes