

Data sheet SM 223 (223-2BL10)

Technical data

Order no.	223-2BL10
Type	SM 223
General information	
Note	-
Features	16x DI 16x DO DC 24 V 1 A Total current up to 10 A
Current consumption/power loss	
Current consumption from backplane bus	120 mA
Power loss	6.5 W
Technical data digital inputs	
Number of inputs	16
Cable length, shielded	1000 m
Cable length, unshielded	600 m
Rated load voltage	-
Current consumption from load voltage L+ (without load)	-
Rated value	DC 20.4...28.8 V
Input voltage for signal "0"	DC 0...5 V
Input voltage for signal "1"	DC 15...28.8 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	8
Number of simultaneously utilizable inputs vertical configuration	8
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 20.4...28.8 V
Reverse polarity protection of rated load voltage	-
Current consumption from load voltage L+ (without load)	10 mA
Output voltage signal "1" at min. current	-

Output voltage signal "1" at max. current	L+ (-0.8 V)
Output current at signal "1", rated value	1 A
Signal logic output	Sourcing output
Output current at signal "0" max. (residual current)	50 µA
Output delay of "0" to "1"	150 µs
Output delay of "1" to "0"	100 µs
Minimum load current	-
Lamp load	5 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. 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	1.7 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 functions	no
Diagnostics information read-out	none
Supply voltage display	green LED
Group error display	red SF LED
Channel error display	none

Datasizes

Input bytes	2
Output bytes	2
Parameter bytes	0
Diagnostic bytes	0

Isolation

Between channels	-
Between channels of groups to	16
Between channels and backplane bus	yes
Between areas	-
Max. potential difference between inputs and Mintern (Uiso)	-
Insulation tested with	DC 500 V

Datasizes

Input bytes	2
Output bytes	2
Parameter bytes	0
Diagnostic bytes	0

Housing

Material	PPE / PA 6.6
Mounting	Profile rail 35 mm
Mechanical data	
Dimensions (WxHxD)	50.8 mm x 76 mm x 88 mm
Net weight	150 g
Weight including accessories	-
Gross weight	-
Environmental conditions	
Operating temperature	0 °C to 60 °C
Storage temperature	-25 °C to 70 °C
Certifications	
UL certification	yes
KC certification	-