

**Data sheet** SM 322 (322-1BH41)

## Technical data

Order no.	322-1BH41
Туре	SM 322
General information	
Note	
Features	16x DO, in groups of 8 DC 24 V 2 A For 20 pole front connector
SPEED-Bus	-
Current consumption/power loss	
Current consumption from backplane bus	110 mA
Power loss	4 W
Technical data digital outputs	
Number of outputs	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
Total current per group, horizontal configuration, 40°C	8 A
Total current per group, horizontal configuration, 60°C	8 A
Total current per group, vertical configuration	8 A
Output current at signal "1", rated value	2 A
Signal logic output	Sourcing output
Output delay of "0" to "1"	150 μs
Output delay of "1" to "0"	100 μs
Minimum load current	-
Lamp load	10 W
Parallel switching of outputs for redundant control of a load	possible (only outputs group)
Parallel switching of outputs for increased power	possible (only outputs group)
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	3 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



Diagnostics information read-out none Supply voltage display green LED per group Group error display none Isolation Between channels yes Between channels of groups to 8 Between channels and backplane bus yes Insulation tested with DC 500 V  Datasizes Input bytes 0 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 including accessories - Gross weight - Environmental conditions UL certification yes KC certification yes KC certification  yes Isolation Inner Isolation Isol	Diagnostic functions	no
Group error display none  Channel error display none  Isolation  Between channels yes  Between channels of groups to 8  Between channels and backplane bus yes  Insulation tested with DC 500 V  Datasizes  Input bytes 0 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 -  Environmental conditions  Operating temperature 0 0 °C to 60 °C  Storage temperature -25 °C to 70 °C  Certifications  UL certification yes	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 Insulation tested with DC 500 V  Datasizes Input bytes 0 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 - Environmental conditions Operating temperature 0 °C to 60 °C Storage temperature -25 °C to 70 °C Certifications UL certification yes	Supply voltage display	green LED per group
Between channels   yes	Group error display	red SF LED
Between channels         yes           Between channels of groups to         8           Between channels and backplane bus         yes           Insulation tested with         DC 500 V           Datasizes         Input bytes           Input bytes         0           Output bytes         2           Parameter bytes         0           Diagnostic bytes         0           Housing         Ball System 300           Metrial         PPE           Mounting         Rail System 300           Mechanical data         Dimensions (WxHxD)           Dimensions (WxHxD)         40 mm x 125 mm x 120 mm           Net weight including accessories         -           Gross weight         -           Environmental conditions         0 °C to 60 °C           Storage temperature         -25 °C to 70 °C           Certifications         UL certification           UL certification         yes	Channel error display	none
Between channels of groups to  Between channels and backplane bus  Jesse Between channels and backplane bus  Joe Storage temperature  Between channels of groups to  8  8  Between channels and backplane bus  Jesse Between channels and backplane bus  Jesse Between channels and backplane bus  Jesse Between channels of groups to  Jesse Between channels of groups to  Jesse Between channels and backplane bus  J	Isolation	
Between channels and backplane bus  Insulation tested with  DC 500 V  Datasizes  Input bytes  Output bytes  Output bytes  O  Output bytes  O  Diagnostic bytes  O  Housing  Material  PPE  Mounting  Rail System 300  Mechanical data  Dimensions (WxHxD)  Au mm x 125 mm x 120 mm  Net weight  230 g  Weight including accessories  Gross weight  Environmental conditions  Operating temperature  O °C to 60 °C  Storage temperature  -25 °C to 70 °C  Certifications  UL certification  yes	Between channels	yes
Insulation tested with DC 500 V  Datasizes  Input bytes 0 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 -  Environmental conditions Operating temperature 0 °C to 60 °C  Storage temperature -25 °C to 70 °C  Certifications UL certification yes	Between channels of groups to	8
Input bytes 0 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 -  Environmental conditions Operating temperature 0 °C to 60 °C  Storage temperature -25 °C to 70 °C  Certifications UL certification yes	Between channels and backplane bus	yes
Input bytes 0 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 - Environmental conditions Operating temperature 0 °C to 60 °C Storage temperature -25 °C to 70 °C  Certifications UL certification yes	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 - Environmental conditions Operating temperature 0 °C to 60 °C Storage temperature -25 °C to 70 °C  Certifications UL certification yes	Datasizes	
Parameter bytes  Diagnostic bytes  O  Housing  Material  PPE  Mounting  Rail System 300  Mechanical data  Dimensions (WxHxD)  At mm x 125 mm x 120 mm  Net weight  230 g  Weight including accessories  Gross weight  Environmental conditions  Operating temperature  O °C to 60 °C  Storage temperature  -25 °C to 70 °C  Certifications  UL certification  yes	Input bytes	0
Diagnostic bytes  Housing  Material  PPE  Mounting  Rail System 300  Mechanical data  Dimensions (WxHxD)  A0 mm x 125 mm x 120 mm  Net weight  230 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	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 -  Environmental conditions  Operating temperature 0 °C to 60 °C  Storage temperature -25 °C to 70 °C  Certifications  UL certification yes	Parameter bytes	0
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 -  Environmental conditions  Operating temperature 0 °C to 60 °C  Storage temperature -25 °C to 70 °C  Certifications  UL certification yes	Diagnostic bytes	0
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 -  Environmental conditions  Operating temperature 0 °C to 60 °C  Storage temperature -25 °C to 70 °C  Certifications  UL certification yes	Housing	
Mechanical data       Dimensions (WxHxD)     40 mm x 125 mm x 120 mm       Net weight     230 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       UL certification     yes	Material	PPE
Dimensions (WxHxD)  A0 mm x 125 mm x 120 mm  Net weight  230 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	Mounting	Rail System 300
Net weight 230 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	Mechanical data	
Weight including accessories  Gross weight  Environmental conditions  Operating temperature  O °C to 60 °C  Storage temperature  -25 °C to 70 °C  Certifications  UL certification  yes	Dimensions (WxHxD)	40 mm x 125 mm x 120 mm
Gross weight -  Environmental conditions  Operating temperature 0 °C to 60 °C  Storage temperature -25 °C to 70 °C  Certifications  UL certification yes	Net weight	230 g
Environmental conditions  Operating temperature 0 °C to 60 °C  Storage temperature -25 °C to 70 °C  Certifications  UL certification yes	Weight including accessories	-
Operating temperature 0 °C to 60 °C  Storage temperature -25 °C to 70 °C  Certifications  UL certification yes	Gross weight	-
Storage temperature -25 °C to 70 °C  Certifications  UL certification yes	Environmental conditions	
Certifications UL certification yes	Operating temperature	0 °C to 60 °C
UL certification yes	Storage temperature	-25 °C to 70 °C
	Certifications	
KC certification yes	UL certification	yes
	KC certification	yes