

**Data sheet**  
**SM 022 (022-1DF00)**
**Technical data**

<b>Order no.</b>	<b>022-1DF00</b>
Type	SM 022
Module ID	0113 2F48
<b>General information</b>	
Note	-
Features	8x DO DC 24 V 0.5 A Diagnostic of wiring errors
<b>Current consumption/power loss</b>	
Current consumption from backplane bus	70 mA
Power loss	1 W
<b>Technical data digital outputs</b>	
Number of outputs	8
Cable length, shielded	1000 m
Cable length, unshielded	600 m
Rated load voltage	DC 20.4...28.8 V
Current consumption from load voltage L+ (without load)	11 mA
Total current per group, horizontal configuration, 40°C	4 A
Total current per group, horizontal configuration, 60°C	4 A
Total current per group, vertical configuration	4 A
Output current at signal "1", rated value	0.5 A
Signal logic output	Sourcing output
Output delay of "0" to "1"	max. 350 µs
Output delay of "1" to "0"	max. 350 µs
Minimum load current	-
Lamp load	10 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 A
Number of operating cycle of relay outputs	-
Switching capacity of contacts	-
Output data size	8 Bit
<b>Status information, alarms, diagnostics</b>	
Status display	green LED per channel
Interrupts	yes, parameterizable
Process alarm	no

Diagnostic interrupt	yes, parameterizable
Diagnostic functions	yes
Diagnostics information read-out	possible
Supply voltage display	green LED
Group error display	red LED
Channel error display	none

### Isolation

Between channels	-
Between channels of groups to	-
Between channels and backplane bus	yes
Insulation tested with	DC 500 V

### PWM data

PWM channels	-
PWM time basis	-
Period length	-
Minimum pulse width	-
Type of output	-

### Safety

Safety protocol	-
Safety requirements	-
Secure user address	-
Watchdog	-
Two channels	-
Test pulse length	-
Circuit monitoring	-

### Datasizes

Input bytes	0
Output bytes	1
Parameter bytes	7
Diagnostic bytes	20

### Housing

Material	PPE / PPE GF10
Mounting	Profile rail 35 mm

### Mechanical data

Dimensions (WxHxD)	12.9 mm x 109 mm x 76.5 mm
Net weight	57 g
Weight including accessories	57 g
Gross weight	71 g

### Environmental conditions

Operating temperature	0 °C to 60 °C
Storage temperature	-25 °C to 70 °C

### Certifications

UL certification	yes
KC certification	yes