

## Data sheet

SM 222 (222-1BH20)

## Technical data

Order no.	222-1BH20
Туре	SM 222
General information	
Note	-
Features	16x DO DC 24 V 2 A Total current up to 10 A
Current consumption/power loss	
Current consumption from backplane bus	120 mA
Power loss	3.5 W
Technical data digital outputs	
Number of outputs	16
Cable length, shielded	1000 m
Cable length, unshielded	600 m
Rated load voltage	DC 20.428.8 V
Current consumption from load voltage L+ (without load)	10 mA
Total current per group, horizontal configuration, 40°C	10 A
Total current per group, horizontal configuration, 60°C	10 A
Total current per group, vertical configuration	10 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	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	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

## **YASKAWA**

Diagnostics information read-out         none           Supply voltage display         green LED per group           Group error display         none           Channel error display         none           Isolation           Between channels         -           Between channels of groups to         16           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 / PA 6.6           Mounting         Profile rail 35 mm           Mechanical data         Profile rail 35 mm           Mechanical data         Profile rail 35 mm           Mechanical data         Profile rail 35 mm           Weight including accessories         -           Gross weight         2.4 mm x 76 mm x 88 mm           Net weight including accessories         -           Gross weight         -           Environmental conditions         Contifications           UL certification         yes <th>Diagnostic functions</th> <th>no</th>	Diagnostic functions	no
Group error display         red SF LED           Channel error display         none           Isolation         -           Between channels         -           Between channels of groups to         16           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 / PA 6.6           Mounting         Profile rail 35 mm           Mechanical data         Dimensions (WxHxD)         25.4 mm x 76 mm x 88 mm           Net weight         100 g         100 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	Diagnostics information read-out	none
Channel error display  Between channels  Between channels of groups to  Between channels and backplane bus  Between channels and backplane bus  Between channels and backplane bus  DC 500 V  Datasizes  Input bytes  O Output bytes  O Output bytes  O Diagnostic bytes  Diagnostic bytes  Dimensions (WxHxD)  Setween channels and backplane bus  Between channels and backplane bus  Between channels of groups to  O DC 500 V  DO V  D	Supply voltage display	green LED per group
Between channels - Between channels of groups to 16 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 / PA 6.6 Mounting Profile rail 35 mm  Mechanical data Dimensions (WxHxD) 25.4 mm x 76 mm x 88 mm Net weight 100 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	Group error display	red SF LED
Between channels   -	Channel error display	none
Between channels of groups to Between channels and backplane bus Insulation tested with DC 500 V  Datasizes  Input bytes 0 Output bytes 2 Parameter bytes 0 Diagnostic bytes 0  Housing  Material PPE / PA 6.6  Mounting Profile rail 35 mm  Mechanical data  Dimensions (WxHxD) 25.4 mm x 76 mm x 88 mm  Net weight 100 g  Weight including accessories Gross weight -  Environmental conditions  Operating temperature 0 °C to 60 °C  Storage temperature - 25 °C to 70 °C  Certifications  V  DO OV  DO OV  VESSION V  DO OV  PO OV	Isolation	
Between channels and backplane bus  Insulation tested with  DC 500 V  Datasizes  Input bytes  Output bytes  Output bytes  Parameter bytes  Oiganostic bytes  Oiganostic bytes  Oiganostic bytes  Diagnostic bytes  Prefile rail 35 mm  Mechanical data  Dimensions (WxHxD)  Prefile rail 35 mm  Net weight  100 g  Weight including accessories  Gross weight  Environmental conditions  Operating temperature  O °C to 60 °C  Storage temperature  O °C to 70 °C  Certifications  UL certification  yes	Between channels	-
Insulation tested with DC 500 V  Datasizes  Input bytes 0 Output bytes 2 Parameter bytes 0 Diagnostic bytes 0  Housing  Material PPE / PA 6.6 Mounting Profile rail 35 mm  Mechanical data  Dimensions (WxHxD) 25.4 mm x 76 mm x 88 mm  Net weight 100 g  Weight including accessories - Gross weight -  Environmental conditions  O °C to 60 °C Storage temperature 0 °C to 70 °C  Certifications  UL certification yes	Between channels of groups to	16
Input bytes  Output bytes  Output bytes  2 Parameter bytes  O Diagnostic bytes  O  Housing  Material  PPE / PA 6.6  Mounting  Profile rail 35 mm  Mechanical data  Dimensions (WxHxD)  25.4 mm x 76 mm x 88 mm  Net weight  100 g  Weight including accessories  Gross weight   Environmental conditions  Operating temperature  O °C to 60 °C  Storage temperature  -25 °C to 70 °C  Certification  UL certification  yes	Between channels and backplane bus	yes
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Output bytes 2   Parameter bytes 0   Diagnostic bytes 0   Housing   Material PPE / PA 6.6   Mounting Profile rail 35 mm   Mechanical data   Dimensions (WxHxD) 25.4 mm x 76 mm x 88 mm   Net weight 100 g   Weight including accessories -   Gross weight -   Environmental conditions   Operating temperature 0 °C to 60 °C   Storage temperature -25 °C to 70 °C   Certifications yes	Datasizes	
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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 -	UL certification	yes
	KC certification	-