

Data sheet SM 222 (222-1BF20)

Technical data

Order no.	222-1BF20	
Туре	SM 222	
General information		
Note		
Features	- 8 outputs	
	Isolation in 4 groups per 2 outputs Output current 2 A	
Current consumption/power loss		
Current consumption from backplane bus	70 mA	
Power loss	3 W	
Technical data digital outputs		
Number of outputs	8	
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	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	2 A	
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	 Image: A second s	
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	1 Byte	
Status information, alarms, diagnostics		
Status display	green LED per channel	
Interrupts	no	



Diagnostics information read-out none Supply voltage display green LED per group Group error display red LED per group Channel error display none Isolation Isolation Between channels Image: State St	Diagnostic functions	no	A YASKAWA COMPANY		
Group error display red LED per group Channel error display none Isolation Isolation Between channels Image: Strateging S	Diagnostics information read-out	none	none		
Channel error display none Isolation Isolation Between channels ✓ Between channels of groups to 2 Between channels and backplane bus ✓ Insulation tested with DC 500 V Datasizes 0 Input bytes 0 Output bytes 1 Parameter bytes 0 Diagnostic bytes 0 Housing Per / PA 6.6 Mounting Per / PA 6.6 Mounting Potile rail 35 mm Mechanical data 25.4 mm x 76 mm x 88 mm Weight 90 g Environmental conditions 0 °C to 60 °C Storage temperature -25 °C to 70 °C Certifications -25 °C to 70 °C	Supply voltage display	green LED per group	green LED per group		
Isolation Between channels Between channels of groups to 2 Between channels and backplane bus Insulation tested with DC 500 V Datasizes Input bytes 0 Output bytes 1 Parameter bytes 0 Diagnostic bytes 0 Housing Material Mechanical data Pight Dimensions (WxHxD) Vegist 0 g Environmental conditions Or C to 60 °C Storage temperature Qertifications	Group error display	red LED per group	red LED per group		
Between channels ✓ Between channels of groups to 2 Between channels and backplane bus ✓ Insulation tested with DC 500 V Datasizes 0 Input bytes 0 Output bytes 1 Parameter bytes 0 Diagnostic bytes 0 Housing PPE / PA 6.6 Material PPE / PA 6.6 Mounting Profile rail 35 mm Mechanical data 90 g Environmental conditions 0 °C to 60 °C Storage temperature 0 °C to 70 °C Certifications -25 °C to 70 °C	Channel error display	none			
Between channels of groups to 2 Between channels and backplane bus ✓ Insulation tested with DC 500 V Datasizes 0 Input bytes 0 Output bytes 1 Parameter bytes 0 Diagnostic bytes 0 Housing 0 Material PPE / PA 6.6 Mounting Profile rail 35 mm Mechanical data 25.4 mm x 76 mm x 88 mm Weight 90 g Environmental conditions 0 °C to 60 °C Storage temperature 0 °C to 70 °C Certifications -25 °C to 70 °C	Isolation				
Between channels and backplane bus ✓ Insulation tested with DC 500 V Datasizes 0 Input bytes 0 Output bytes 1 Parameter bytes 0 Diagnostic bytes 0 Housing 0 Material PPE / PA 6.6 Mounting Profile rail 35 mm Mechanical data 25.4 mm x 76 mm x 88 mm Weight 90 g Environmental conditions 0 °C to 60 °C Storage temperature 0 °C to 70 °C Certifications -25 °C to 70 °C	Between channels	s.			
Insulation tested with DC 500 V Datasizes 0 Input bytes 0 Output bytes 1 Parameter bytes 0 Diagnostic bytes 0 Housing 0 Material PPE / PA 6.6 Mounting Profile rail 35 mm Mechanical data 25.4 mm x 76 mm x 88 mm Weight 90 g Environmental conditions 0 °C to 60 °C Storage temperature -25 °C to 70 °C Certifications -25 °C to 70 °C	Between channels of groups to	2			
Datasizes Input bytes 0 Output bytes 1 Parameter bytes 0 Diagnostic bytes 0 Housing 0 Material PPE / PA 6.6 Mounting Profile rail 35 mm Mechanical data 25.4 mm x 76 mm x 88 mm Weight 90 g Environmental conditions 0 °C to 60 °C Storage temperature -25 °C to 70 °C Certifications -25 °C to 70 °C	Between channels and backplane bus	Ś			
Input bytes 0 Output bytes 1 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 Weight 90 g Environmental conditions Operating temperature 0 °C to 60 °C Storage temperature -25 °C to 70 °C	Insulation tested with	DC 500 V	DC 500 V		
Output bytes1Parameter bytes0Diagnostic bytes0HousingPPE / PA 6.6MountingProfile rail 35 mmMechanical data25.4 mm x 76 mm x 88 mmWeight90 gEnvironmental conditions0 °C to 60 °CStorage temperature-25 °C to 70 °CCertifications	Datasizes				
Parameter bytes0Diagnostic bytes0HousingMaterialPPE / PA 6.6MountingProfile rail 35 mmMechanical data25.4 mm x 76 mm x 88 mmDimensions (WxHxD)25.4 mm x 76 mm x 88 mmWeight90 gEnvironmental conditionsOperating temperature0 °C to 60 °CStorage temperature-25 °C to 70 °CCertifications-25 °C to 70 °C	Input bytes	0	0		
Diagnostic bytes 0 Housing PPE / PA 6.6 Mounting Profile rail 35 mm Mechanical data Dimensions (WxHxD) 25.4 mm x 76 mm x 88 mm Weight 90 g Environmental conditions 0 °C to 60 °C Storage temperature 0 °C to 70 °C Certifications -25 °C to 70 °C	Output bytes	1	1		
Housing PPE / PA 6.6 Mounting Profile rail 35 mm Mechanical data Profile rail 35 mm Dimensions (WxHxD) 25.4 mm x 76 mm x 88 mm Weight 90 g Environmental conditions 0 °C to 60 °C Storage temperature -25 °C to 70 °C Certifications -25 °C to 70 °C	Parameter bytes	0	0		
MaterialPPE / PA 6.6MountingProfile rail 35 mmMechanical data25.4 mm x 76 mm x 88 mmDimensions (WxHxD)25.4 mm x 76 mm x 88 mmWeight90 gEnvironmental conditionsOperating temperature0 °C to 60 °CStorage temperature-25 °C to 70 °CCertifications	Diagnostic bytes	0			
MountingProfile rail 35 mmMechanical dataDimensions (WxHxD)25.4 mm x 76 mm x 88 mmWeight90 gEnvironmental conditionsOperating temperature0 °C to 60 °CStorage temperature-25 °C to 70 °CCertifications	Housing				
Mechanical data Dimensions (WxHxD) 25.4 mm x 76 mm x 88 mm Weight 90 g Environmental conditions 0 °C to 60 °C Operating temperature 0 °C to 60 °C Storage temperature -25 °C to 70 °C Certifications -25 °C to 70 °C	Material	PPE / PA 6.6	PPE / PA 6.6		
Dimensions (WxHxD)25.4 mm x 76 mm x 88 mmWeight90 gEnvironmental conditions0 °C to 60 °COperating temperature0 °C to 60 °CStorage temperature-25 °C to 70 °CCertifications-25 °C to 70 °C	Mounting	Profile rail 35 mm			
Weight 90 g Environmental conditions 0 °C to 60 °C Operating temperature 0 °C to 60 °C Storage temperature -25 °C to 70 °C Certifications -25 °C to 70 °C	Mechanical data				
Environmental conditions Operating temperature 0 °C to 60 °C Storage temperature -25 °C to 70 °C Certifications	Dimensions (WxHxD)	25.4 mm x 76 mm x 88	25.4 mm x 76 mm x 88 mm		
Operating temperature 0 °C to 60 °C Storage temperature -25 °C to 70 °C Certifications -25 °C to 70 °C	Weight	90 g	90 g		
Storage temperature -25 °C to 70 °C Certifications	Environmental conditions				
Certifications	Operating temperature	0 °C to 60 °C			
	Storage temperature	-25 °C to 70 °C	-25 °C to 70 °C		
UL508 certification yes	Certifications				
	UL508 certification	yes	yes		