

Data sheet SM 022 - Digital output (022-1BF01)

**Technical data** 

Order no.	022-1BF01
Туре	SM 022 - Digital output
Module ID	0125 AFC8
General information	
Note	-
Features	8x DO DC 24 V 0.5 A
Current consumption/power loss	
Current consumption from backplane bus	50 mA
Power loss	0.7 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)	15 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"	70 µs
Output delay of "1" to "0"	175 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+ (-53 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
Status information, alarms, diagnostics	
Status display	green LED per channel
Interrupts	no
Process alarm	no
Diagnostic interrupt	no

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Diagnostics information read-outnoneSupply voltage displaygreen LEDGroup reror displayred LEDChannel error displaynoneIsolationIsolationBetween channels of groups to-Between channels of groups toyesInsulation tested withDC 500 VPWM datPWM dtamels-PWM dtamels-PWM dtamels-PWM dtamels-PWM dtamels-Proto length-Mainium pulse width-Type of output-Datasizes0Output bytes0Diagnostic bytes0Diagnostic bytes0Diagnostic bytes0Diagnostic bytes0Diagnostic bytes0Diagnostic bytes0Diagnostic bytes0Diagnostic bytes12.9 rms x109 rms x76.5 rmNet weight58.9Weight including accessories58.9Group error starter-26.° C to 0°CStorage temperature-26.° C to 0°CStorage temperature-26.° C to 0°CCertification-Ut Cartification-Certification-ChinaRoHS certification-ChinaRoHS certification-ChinaRoHS certification-Certification-ChinaRoHS certification-ChinaRoHS certification-ChinaRoHS certification- </th <th>Diagnostic functions</th> <th>no</th>	Diagnostic functions	no
Group error display red LED   Channel error display none   Isolation -   Between channels -   Between channels and backplane bus yes   Insulation tested with DC 500 V   PWM data -   PWM channels -   PWM data -   Public basis -   Period length -   Minimum pulse width -   Type of output -   Datasizes 0   Input bytes 0   Diagnostic bytes 0   Diagnostic bytes 0   Diagnostic bytes 0   Material PPE / PPE GF10   Mounting Profile rail 35 mm   Mechanical data PIE   Dimensions (WxHxD) 1.2.9 mm x 109 mm x 76.5 mm   Net weight 58 g   Weight including accessories 58 g   Gross weight 73 g   Environmental conditions -   Uc certification -   Uc certification	Diagnostics information read-out	none
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 data -   PWM data -   PWM time basis -   Period length -   Minimum pulse width -   Type of output -   Datasizes 0   Output bytes 0   Output bytes 0   Output bytes 0   Diagnostic bytes 0   Housing Pref PPE GF10   Mounting Pref /PPE GF10   Mounting Pref /PPE GF10   Mounting 12.9 mm x 109 mm x 76.5 mm   Net weight 58 g   Gross weight 7.3 g   Environmental conditions 68 g   Gross weight 7.3 g   Environmental conditions -   Uc certification -   Uc certification -	Supply voltage display	green LED
Isolation     Between channels   -     Between channels and backplane bus   yes     Insulation tested with   D 500 V     PWM data   -     PWM tamels   -     PWM tamels   -     PVM time basis   -     Period length   -     Minimum pulse width   -     Type of output   -     Datasizes   0     Input bytes   0     Output bytes   1     Parameter bytes   0     Output bytes   0     Iagnostic bytes   0     Moring   PPE / PPE GP10     Mouring   PDE / PPE GP10     Mouring   POE rall 35 mm     Mechanical data   D     Dimensions (WxHxD)   1.2 mm x 109 mm x 76.5 mm     Net weight   58 g     Weight including accessories   58 g     Gross weight   7.3 g     Environmental conditions   -     Uc certification   -     Uc certification   -     Uc certification   -     KC certification	Group error display	red LED
Between channels     -       Between channels of groups to     -       Between channels and backplane bus     yes       Insulation tested with     DC 500 V       PWM data     -       PWM channels     -       PWM thime basis     -       Period length     -       Minimum pulse width     -       Type of output     -       Datasizes     0       Output bytes     0       Output bytes     0       Output bytes     0       Parameter bytes     0       Diagnostic bytes     0       Muning     PPE / PPE GF10       Mounting     Profile rail 35 mm       Mechanical data     PE       Dimensions (WxHxD)     12.9 mm x 109 mm x 76.5 mm       Net weight     58 g       Gross weight     73 g       Environmental conditions     -25 °C to 70 °C       Certification     -25 °C to 70 °C       Certification     -25 °C to 70 °C	Channel error display	none
Between channels of groups to -   Between channels and backplane bus yes   Insulation tested with DC 500 V   PWM data -   PWM channels -   PWM drannels -   PWM drannels -   PWM drannels -   Period length -   Minimum pulse width -   Type of output -   Datasizes 0   Input bytes 0   Output bytes 1   Parameter bytes 0   Output bytes 0   Diagnostic bytes 0   Material PPE / PPE GF10   Mounting Profile rail 35 mm   Mechanical data U   Dimensions (WxHxD) 12.9 mm x 109 mm x 76.5 mm   Net weight 58 g   Gross weight 73 g   Environmental conditions -   Coertification -25 °C to 70 °C   Certification -   UL certification -   VKCA certification -	Isolation	
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 -   Datasizes 0   Input bytes 0   Output bytes 1   Parameter bytes 0   Diagnostic bytes 0   Housing Profile rail 35 mm   Mechanical data PPE / PPE GF10   Mounting Profile rail 35 mm   Mechanical data 2.9 mm x 109 mm x 76.5 mm   Net weight 58 g   Gross weight 73 g   Environmental conditions 0 °C to 60 °C   Storage temperature 0 °C to 60 °C   Storage temperature 0 °C to 70 °C   Certification -   UL certification -   VKCA certification -	Between channels	-
Insulation tested with   DC 500 V     PWM data   -     PWM channels   -     PWM time basis   -     Period length   -     Minimum pulse width   -     Type of output   -     Datasizes   -     Input bytes   0     Output bytes   1     Parameter bytes   0     Diagnostic bytes   0     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   58 g     Veight including accessories   58 g     Gross weight   73 g     Environmental conditions   -     Operating temperature   0 °C to 60 °C     Storage temperature   0 °C to 60 °C     Storage temperature   -     UL certification   -     UL certification   -     UL certification   -	Between channels of groups to	-
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Dimensions (WxHxD)12.9 mm x 109 mm x 76.5 mmNet weight58 gWeight including accessories58 gGross weight73 gEnvironmental conditionsOperating temperature0 °C to 60 °CStorage temperature-25 °C to 70 °CCertificationsUL certification-KC certification-UKCA certification-UKCA certification-	Mounting	Profile rail 35 mm
Net weight58 gWeight including accessories58 gGross weight73 gEnvironmental conditions0 °C to 60 °COperating temperature0 °C to 60 °CStorage temperature-25 °C to 70 °CCertificationsImage: Certification of the section of the	Mechanical data	
Weight including accessories58 gGross weight73 gEnvironmental conditions0 °C to 60 °COperating temperature0 °C to 60 °CStorage temperature-25 °C to 70 °CCertifications-UL certification-KC certification-UKCA certification-	Dimensions (WxHxD)	12.9 mm x 109 mm x 76.5 mm
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Storage temperature-25 °C to 70 °CCertifications-UL certification-KC certification-UKCA certification-	Environmental conditions	
Certifications   -     UL certification   -     KC certification   -     UKCA certification   -	Operating temperature	0 °C to 60 °C
UL certification-KC certification-UKCA certification-	Storage temperature	-25 °C to 70 °C
KC certification-UKCA certification-	Certifications	
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	KC certification	-
ChinaRoHS certification -	UKCA certification	-
	ChinaRoHS certification	-