

Data sheet SM 021 (021-1BF00)

Technical data

Order no.	021-1BF00
Туре	SM 021
Module ID	0005 9FC1
General information	
Note	-
Features	8 inputs
Current consumption/power loss	
Current consumption from backplane bus	60 mA
Power loss	0.9 W
Technical data digital inputs	
Number of inputs	8
Cable length, shielded	0 1000 m
Cable length, unshielded	600 m
Rated load voltage	-
Current consumption from load voltage L+ (without load)	-
Rated value	- DC 20.428.8 V
Input voltage for signal "0"	DC 20.420.8 V
Input voltage for signal "1"	DC 53 V
Input voltage hysteresis	-
Frequency range	
Input resistance	
Input current for signal "1"	3 mA
Connection of Two-Wire-BEROs possible	<ul> <li>✓</li> </ul>
	2.8
Max. permissible BERO quiescent current	0.5 mA
Input delay of "0" to "1"	3 ms
Input delay of "1" to "0"	3 ms
Number of simultaneously utilizable inputs horizontal configuration	8
Number of simultaneously utilizable inputs vertical configuration	8
Input characteristic curve	IEC 61131-2, type 1
Initial data size	8 Bit
Status information, alarms, diagnostics	
Status display	green LED per channel
Interrupts	no
Process alarm	no
Diagnostic interrupt	no
Diagnostic functions	no
Diagnostics information read-out	none
Module state	green LED
Module error display	red LED
	··· <del>-</del>



Between channels       -         Between channels and backplane bus       ✓         Insulation tested with       DC 500 V         Safety       Safety         Safety protocol       -         Safety requirements       -         Secure user address       -         Watchdog       -         Two channels       -         Datasizes       -         Input bytes       1         Output bytes       0         Diagnostic bytes       0         Diagnostic bytes       0         Bethraid       PPE / PPE GF10         Mounting       Profile rail 35 mm         Mechanical data       1.9.9 mm x 109 mm x 76.5 mm         Weight       60 g         Environmental conditions       0.°C to 60 °C         Storage temperature       0.°C to 60 °C	Isolation	
Between channels and backplane bus     Insulation tested with     DC 500 V       Safety     -       Safety protocol     -       Safety requirements     -       Secure user address     -       Watchdog     -       Two channels     -       Tost pulse outputs     -       Datasizes     -       Input bytes     1       Output bytes     0       Parameter bytes     0       Diagnostic bytes     0       Houting     PPE / PPE GF10       Mounting     PPE / PPE GF10       Mounting     12.9 mm x 109 mm x 76.5 mm       Weight     60 g       Environmental conditions     0 °C C       Operating temperature     0 °C C to 60 °C       Storage temperature     0 °C C to 70 °C	Between channels	-
Insulation tested with     DC 500 V       Safety     Safety       Safety protocol     -       Safety requirements     -       Secure user address     -       Watchdog     -       Two channels     -       Test pulse outputs     -       Datasizes     -       Input bytes     1       Output bytes     0       Parameter bytes     0       Diagnostic bytes     0       Housing     Profile rail 35 mm       Mechanical data     12.9 mm x 109 mm x 76.5 mm       Weight     60 g       Environmental conditions     0 °C       Oreal conditions     -       Oreal conditions     -	Between channels of groups to	-
Safety         Safety protocol       -         Safety requirements       -         Secure user address       -         Watchdog       -         Two channels       -         Tot channels       -         Datasizes       -         Input bytes       1         Output bytes       0         Parameter bytes       0         Diagnostic bytes       0         Housing       Profile rail 35 mm         Mounting       Profile rail 35 mm         Mechanical data       12.9 mm x 109 mm x 76.5 mm         Weight       60 g         Environmental conditions       -         Orec to 60 °C       Storage temperature         Orec to 60 °C       Storage temperature	Between channels and backplane bus	1
Safety protocol-Safety requirements-Secure user address-Watchdog-Two channels-Test pulse outputs-Datasizes1Input bytes0Parameter bytes0Diagnostic bytes0HousingPPE / PPE GF10MaterialPPC / PPE GF10Mechanical data12.9 mm x 109 mm x 76.5 mmWeight60 gEnvironmental conditions0°C to 60 °CStorage temperature-Certifications-Certifications-	Insulation tested with	DC 500 V
Safety requirements       -         Secure user address       -         Watchdog       -         Two channels       -         Test pulse outputs       -         Datasizes       -         Input bytes       1         Output bytes       0         Parameter bytes       0         Diagnostic bytes       0         Housing       Profile rail 35 mm         Mechanical data       PPE / PPE GF10         Dimensions (WxHxD)       12.9 mm x 109 mm x 76.5 mm         Weight       60 g         Environmental conditions       0 °C to 60 °C         Storage temperature       0 °C to 70 °C         Certifications       -25 °C to 70 °C	Safety	
Secure user address-Watchdog-Two channels-Test pulse outputs-Datasizes1Input bytes0Parameter bytes0Diagnostic bytes0HousingPPE / PPE GF10MaterialPPE / PPE GF10MountingProfile rail 35 mmMechanical data2.9 mm x 109 mm x 76.5 mmWeight60 gEnvironmental conditions0 °C to 60 °CStorage temperature-25 °C to 70 °CCertifications-	Safety protocol	-
Watchdog       -         Two channels       -         Test pulse outputs       -         Datasizes       -         Input bytes       1         Output bytes       0         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         Weight       60 g         Environmental conditions       -         Operating temperature       0 °C to 60 °C         Storage temperature       -25 °C to 70 °C	Safety requirements	-
Two channels       -         Test pulse outputs       -         Datasizes       -         Input bytes       1         Output bytes       0         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         Weight       60 g         Environmental conditions       0 °C to 60 °C         Storage temperature       - 25 °C to 70 °C         Certifications       -	Secure user address	-
Test pulse outputs       -         Datasizes       1         Input bytes       0         Output bytes       0         Parameter bytes       0         Diagnostic bytes       0         Housing       0         Material       PPE / PPE GF10         Mounting       Profile rail 35 mm         Mechanical data       2.9 mm x 109 mm x 76.5 mm         Weight       60 g         Environmental conditions       0 °C to 60 °C         Storage temperature       -25 °C to 70 °C	Watchdog	-
Datasizes         Input bytes       1         Output bytes       0         Parameter bytes       0         Diagnostic bytes       0         Housing       0         Material       PPE / PPE GF10         Mounting       Profile rail 35 mm         Mechanical data       Dimensions (WxHxD)         Dimensions (WxHxD)       12.9 mm x 109 mm x 76.5 mm         Weight       60 g         Environmental conditions       0 °C to 60 °C         Storage temperature       -25 °C to 70 °C	Two channels	-
Input bytes       1         Output bytes       0         Parameter bytes       0         Diagnostic bytes       0         Housing       0         Material       PPE / PPE GF10         Mounting       Profile rail 35 mm         Mechanical data          Dimensions (WxHxD)       12.9 mm x 109 mm x 76.5 mm         Weight       60 g         Environmental conditions          Operating temperature       0 °C to 60 °C         Storage temperature       -25 °C to 70 °C	Test pulse outputs	-
Output bytes       0         Parameter bytes       0         Diagnostic bytes       0         Housing       0         Material       PPE / PPE GF10         Mounting       Profile rail 35 mm         Mechanical data       12.9 mm x 109 mm x 76.5 mm         Weight       60 g         Environmental conditions       0 °C to 60 °C         Storage temperature       -25 °C to 70 °C	Datasizes	
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         Weight       60 g         Environmental conditions       0 °C to 60 °C         Storage temperature       -25 °C to 70 °C	Input bytes	1
Diagnostic bytes       0         Housing       PPE / PPE GF10         Material       Profile rail 35 mm         Mechanical data       Profile rail 35 mm         Dimensions (WxHxD)       12.9 mm x 109 mm x 76.5 mm         Weight       60 g         Environmental conditions       0 °C to 60 °C         Storage temperature       0 °C to 60 °C         Storage temperature       -25 °C to 70 °C	Output bytes	0
Housing       PPE / PPE GF10         Material       Profile rail 35 mm         Mechanical data       Intervention         Dimensions (WxHxD)       12.9 mm x 109 mm x 76.5 mm         Weight       60 g         Environmental conditions       0 °C to 60 °C         Storage temperature       -25 °C to 70 °C         Certifications       Intervention	Parameter bytes	0
MaterialPPE / PPE GF10MountingProfile rail 35 mmMechanical dataI2.9 mm x 109 mm x 76.5 mmDimensions (WxHxD)12.9 mm x 109 mm x 76.5 mmWeight60 gEnvironmental conditionsOperating temperature0 °C to 60 °CStorage temperature-25 °C to 70 °CCertifications	Diagnostic bytes	0
Mounting     Profile rail 35 mm       Mechanical data       Dimensions (WxHxD)     12.9 mm x 109 mm x 76.5 mm       Weight     60 g       Environmental conditions       Operating temperature     0 °C to 60 °C       Storage temperature     -25 °C to 70 °C       Certifications	Housing	
Mechanical data         Dimensions (WxHxD)       12.9 mm x 109 mm x 76.5 mm         Weight       60 g         Environmental conditions       0 °C to 60 °C         Operating temperature       0 °C to 60 °C         Storage temperature       -25 °C to 70 °C         Certifications       1000000000000000000000000000000000000	Material	PPE / PPE GF10
Dimensions (WxHxD)     12.9 mm x 109 mm x 76.5 mm       Weight     60 g       Environmental conditions     0 °C to 60 °C       Operating temperature     0 °C to 60 °C       Storage temperature     -25 °C to 70 °C	Mounting	Profile rail 35 mm
Weight     60 g       Environmental conditions     0 °C to 60 °C       Operating temperature     0 °C to 60 °C       Storage temperature     -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)	12.9 mm x 109 mm x 76.5 mm
Operating temperature     0 °C to 60 °C       Storage temperature     -25 °C to 70 °C	Weight	60 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
UL508 certification yes	Certifications	
	UL508 certification	yes

none

Channel error display