

## Data sheet

SM 031 (031-1CA20)

**Technical data** 

Order no.	031-1CA20
Туре	SM 031
Module ID	0841 1809
General information	
Note	-
Features	Direct connection of a resistor full bridge (DMS) or load cell 4- or 6-wire connection 16 (24) Bit resolution Auto self calibration zero point and final value Absolute exactness radical error $\pm 0.1$ % ( $\pm 0.01$ %) Onboard power supply 2V5, 5 V, 7V5, 10 V und 12 V
Current consumption/power loss	
Current consumption from backplane bus	55 mA
Power loss	1 W
Technical data strain gauge DMS inputs	
Number of inputs	1
Cable length, shielded	200 m
Rated load voltage	DC 24 V
Reverse polarity protection of rated load voltage	yes
Current consumption from load voltage L+ (without load)	18 mA
Relative accuracy according to self-calibration	+/-0.01%
Operational limit Usense	+/-0.2%
Operational limit Usig	+/-0.2%
Basic error limit Usense	+/-0.1%
Basic error limit Usig	+/-0.1%
Destruction limit voltage	max. 12V
External bridge supply possible	-
Internal bridge supply possible	yes
Configurable bridge supply	2.5V / max. 120mA 5V / max. 120mA 7.5V / max. 100mA 10V / max. 90mA 12V / max. 80mA
Resolution in bit	24
Measurement principle	successive approximation
Basic conversion time	1ms cycle, 10ms330ms depending on the filter
Input filter Hardware	Low pass 10kHz 3rd order
Input filter software	Dynamic IIR filter configurable IIR filter 0.1Hz1000Hz configurable FIR filter 50Hz/60Hz
Initial data size	4 Byte
Data for selection of the strain gauge DMS sensor	
Bridge supply voltage EXC	012V
Bridge differential voltage SIG	+/-29mV
Rated output	0.54mV/V

4 wire connection possible

yes



Status information, alarms, diagnostics       Status display     yes       Interrupts     yes, parameterizable       Process alarm     no       Diagnostic interrupt     yes, parameterizable       Diagnostics interrupt     yes       Diagnostics interrupt     possible       Module error display     red LED       Channel error display     red LED       Channel error display     red LED       Isolation     yes       Between channels     -       Between channels of groups to     -       Between channels and power supply     -       Max, potential difference between inputs     -       Max, potential difference between inputs and Mintern (Ulso)     -       Max, potential difference between inputs and Mintern (Ulso)     -       Max, potential difference between Mintern and outputs     -       Insulation tested with     DC 500 V       Datasizes     -       Input tytes     5       Output bytes     1       Parameter bytes     30       Diagnostic (WxHxD)     12.9 mm x 109 mm x 76.5 mm       Net weight     64 g       Gross weight     78 g       Cross Walgott     78 g       Cross Walgott     78 g	6 wire connection possible	yes
Status display         yes           Interrupta         yes, parameterizable           Process alam         no           Diagnostic interrupt         yes, parameterizable           Diagnostic functions         yes           Diagnostic functions         yes           Module error display         red LED           Channel error display         red LED           Addie error display         red LED           Isolation         -           Between channels         -           Between channels of groups to         -           Between channels and power supply         -           Attack proteinal difference between inputs (Ucm)         -           Max. potential difference between inputs (Ucm)         -           Max. potential difference between inputs and Mana (Ucm)         -           Max. potential difference between Mana and Mintern (Uiso)         -           Max. potential difference between Mintern and outputs         -           Input bytes         S           Diagnostic bytes         1           Diagnostic bytes         1           Diagnostic bytes         20           Dupt bytes         20           Diagnostic bytes         20           Dionensions (WxHxD)	Possible bridge configuration	symmetric full bridge
Status display         yes           Interrupta         yes, parameterizable           Process alam         no           Diagnostic interrupt         yes, parameterizable           Diagnostic functions         yes           Diagnostic functions         yes           Module error display         red LED           Channel error display         red LED           Addie error display         red LED           Isolation         -           Between channels         -           Between channels of groups to         -           Between channels and power supply         -           Attack proteinal difference between inputs (Ucm)         -           Max. potential difference between inputs (Ucm)         -           Max. potential difference between inputs and Mana (Ucm)         -           Max. potential difference between Mana and Mintern (Uiso)         -           Max. potential difference between Mintern and outputs         -           Input bytes         S           Diagnostic bytes         1           Diagnostic bytes         1           Diagnostic bytes         20           Dupt bytes         20           Diagnostic bytes         20           Dionensions (WxHxD)	Status information, alarms, diagnostics	
Interrupts         yes, parameterizable           Process alarm         no           Diagnostic Interrupt         yes, parameterizable           Diagnostic Interrupt         possible           Module error display         red LED           Channel error display         -           Between channels         -           Between channels of groups to         -           Between channels and power supply         -           Max. potential difference between inputs         -           Max. potential difference between inputs and Mintern (Ulso)         -           Max. potential difference between inputs and Mintern (Ulso)         -           Max. potential difference between inputs and Mintern (Ulso)         -           Max. potential difference between inputs and Mintern (Ulso)         DC 500 V           Datasizes         -           Insulation tested with         DC 500 V           Datasizes         -           Input bytes         5           Output bytes         1           Parameter bytes         30           Diagnostic bytes         20		Ves
Process alarm         no           Diagnostic interrupt         yes, parameterizable           Diagnostics information read-out         possible           Module state         yes           Module orror display         red LED           Channel error display         red LED           State         yes           Between channels of groups to         -           Between channels and backplane bus         yes           Between channels and power supply         -           Adx., potential difference between inputs and Mana (Ucm)         -           Max., potential difference between inputs and Mana (Ucm)         -           Max., potential difference between inputs and Mana (Ucm)         -           Max., potential difference between inputs and Mana (Ucm)         -           Max., potential difference between inputs and Mana (Ucm)         -           Insulation tested with         DC 500 V           Datasizes         -           Input bytes         5           Oulput bytes         1           Parameter bytes         30           Diagnostic bytes         20           Diagnostic bytes         64 g           Mouning         PC / PPE GF10           Mouning         PC / PPE GF10      <	• •	· · ·
Diagnostic functions         yes           Diagnostics information read-out         possible           Module error display         red LED           Channel error display         red LED           Channel for of display         red LED           Channels         -           Between channels         -           Between channels and backplane bus         yes           Between channels and power supply         -           Max. potential difference between inputs (Ucm)         -           Max. potential difference between inputs and Mana (Ucm)         -           Max. potential difference between inputs and Mintern (Uiso)         -           Max. potential difference between Mana and Mintern (Uiso)         -           Max. potential difference between Mana and Mintern (Uiso)         -           Max. potential difference between Mana and Mintern (Uiso)         DC 50 V           Max. potential difference between Mana and Mintern (Uiso)         DC 50 V           Datasizes         -           Input bytes         5           Output bytes         1           Parameter bytes         30           Diagnostic bytes         20           Diagnostic bytes         PC / PPE GF10           Material         PC / PPE GF10	· · ·	
Nome         Nome           Diagnostics information read-out         possible           Module state         yes           Module error display         red LED           Channel error display         red LED           Solation         -           Between channels of groups to         -           Between channels and backplane bus         yes           Between channels and power supply         -           Max. potential difference between inputs (UCm)         -           Max. potential difference between inputs and Mintern (Uso)         -           Max. potential difference between inputs and Mintern (Uso)         -           Max. potential difference between inputs and Mintern (Uso)         -           Insulation tested with         DC 500 V           Datasizes         -           Input bytes         5           Output bytes         1           Diagnostic bytes         10           Diagnostic bytes         20           Houting         Porfile rail 35 mm           Mechanical data         PC / PPE GF10           Mouning         Porfile rail 35 mm           Mechanical data         29           Dirensions (WeHxD)         12.9 mm x 10.9 mm x 76.5 mm           Net weight	Diagnostic interrupt	yes, parameterizable
Module state         yes           Module error display         red LED           Channel error display         red LED           Isolation         -           Between channels         -           Between channels and backplane bus         yes           Between channels and power supply         -           Max. potential difference between circuits         -           Max. potential difference between inputs (Ucm)         -           Max. potential difference between inputs (Ucm)         -           Max. potential difference between inputs (Ucm)         -           Max. potential difference between inputs and Mintern (Uiso)         DC 75 V/ AC 50 V           Max. potential difference between inputs and Mintern (Uiso)         DC 500 V           Datasizes         -           Insulation tested with         DC 500 V           Datasizes         -           Input bytes         5           Output bytes         1           Parameter bytes         30           Diagnostic bytes         20           Hetrial         PC / PPE GF10           Mounting         Profile rail 35 mm           Mechanical data         -           Dimensions (WxHxD)         12.9 mm x 109 mm x 76.5 mm	Diagnostic functions	yes
Module error display         red LED           Channel error display         red LED           Isolation         -           Between channels         -           Between channels of groups to         -           Between channels and backplane bus         yes           Between channels and power supply         -           Max. potential difference between inputs (Ucm)         -           Max. potential difference between inputs (Ucm)         -           Max. potential difference between inputs and Mintern (Uiso)         -           Max. potential difference between inputs and Mintern (Uiso)         C 500 V           Max. potential difference between inputs and Mintern (Uiso)         C 500 V           DataSizes         -           Insulation tested with         D C 500 V           DataSizes         -           Input bytes         5           Output bytes         1           Parameter bytes         30           Diagnostic bytes         20           Housing         Profler ail 35 mm           Mechanical data         C           Dimensions(WkHxD)         12.9 mm x 109 mm x 76.5 mm           Net weight         64 g           Weigh including accessories         64 g	Diagnostics information read-out	possible
Channel error display     red LED       Isolation     -       Between channels     -       Between channels of groups to     -       Between channels and power supply     -       Between channels and power supply     -       Max. potential difference between circuits     -       Max. potential difference between Mana and Mintern (Uso)     -       Max. potential difference between Mana and Mintern (Uso)     -       Max. potential difference between inputs and Mana (Ucrn)     -       Max. potential difference between inputs and Mintern (Uso)     DC 75 V/ AC 50 V       Max. potential difference between inputs and Mintern (Uso)     DC 500 V       Datasizes     -       Insulation tested with     DC 500 V       Datasizes     -       Parameter bytes     5       Output bytes     5       Diagnostic bytes     30       Diagnostic bytes     20       Housing     Profile rail 35 mm       Metenial     PC / PPE CF10       Mounting     Pto 9mm x 76.5 mm       Netweight     64 9       Weight including accessories     64 9       Corss weight     78 9       Environmental conditions     -       Operating temperature     0 °C to 60 °C       Storage temperature     26 °C to 70 °C	Module state	yes
Isolation       -         Between channels of groups to       -         Between channels and backplane bus       yes         Between channels and backplane bus       yes         Between channels and backplane bus       -         Max. potential difference between circuits       -         Max. potential difference between inputs (Ucm)       -         Max. potential difference between inputs and Mana (Ucm)       -         Max. potential difference between inputs and Mintern (Uiso)       C         Max. potential difference between inputs and Mintern (Uiso)       C         Max. potential difference between inputs and Mintern (Uiso)       C         Max. potential difference between inputs and Mintern (Uiso)       C         Max. potential difference between inputs and Mintern (Uiso)       C         Max. potential difference between inputs and Mintern (Uiso)       C         Insulation tested with       DC 500 V         Datasizes       -         Input bytes       5         Output bytes       1         Parameter bytes       30         Diagnostic bytes       20         Housing       Pc / PPE GF10         Mounting       Pcolle rail 35 mm         Mechanical data       12.9 mm x 109 mm x 76.5 mm         D	Module error display	red LED
Between channels         -           Between channels of groups to         -           Between channels and backplane bus         yes           Between channels and power supply         -           Max. potential difference between inputs (Ucm)         -           Max. potential difference between inputs (Ucm)         -           Max. potential difference between inputs and Minterr (Uiso)         DC 75 V/ AC 50 V           Max. potential difference between inputs and Minterr (Uiso)         DC 75 V/ AC 50 V           Max. potential difference between inputs and Minterr (Uiso)         DC 75 V/ AC 50 V           Max. potential difference between inputs and Minterr (Uiso)         DC 500 V           Datasizes         -           Insulation tested with         DC 500 V           Datasizes         -           Input bytes         5           Output bytes         1           Parameter bytes         30           Diagnostic bytes         20           Metrial         PC / PPE GF10           Metrial         PC / PPE GF10           Mounting         12.9 mm x 109 mm x 76.5 mm           Net weight         64 g           Weight including accessories         64 g           Gross weight         78 g           Environm	Channel error display	red LED
Between channels of groups to         -           Between channels and backplane bus         yes           Between channels and power supply         -           Max. potential difference between circuits         -           Max. potential difference between inputs (Ucm)         -           Max. potential difference between inputs and Mana (Uso)         -           Max. potential difference between inputs and Mintern (Uso)         DC 75 V/ AC 50 V           Max. potential difference between inputs and Mintern (Uso)         DC 75 V/ AC 50 V           Max. potential difference between inputs and Mintern (Uso)         DC 75 V/ AC 50 V           Max. potential difference between inputs and Mintern (Uso)         DC 500 V           Datasizes         Do 500 V           Insulation tested with         DC 500 V           Datasizes         30           Dignostic bytes         30           Dignostic bytes         20           Haterial         PC / PPE GF10           Mounting         Profile rail 35 mm           Mechanical data         Pc/ PPE GF10           Methylet, the dag         4 g           Gross weight         64 g           Gross weight         78 g           Environmental conditions         78 g           Environmental conditions	Isolation	
Between channels and backplane bus     yes       Between channels and power supply     -       Max. potential difference between circuits     -       Max. potential difference between inputs (Ucm)     -       Max. potential difference between inputs and Mana (Uso)     -       Max. potential difference between inputs and Mana (Uso)     -       Max. potential difference between inputs and Mana (Uso)     DC 75 V/ AC 50 V       Max. potential difference between inputs and Mintern (Uiso)     DC 75 V/ AC 50 V       Max. potential difference between Mintern and outputs     -       Insulation tested with     DC 500 V       Datasizes     -       Input bytes     5       Output bytes     1       Parameter bytes     30       Diagnostic bytes     20       Housing     Profile rail 35 mm       Mechanical data     PC / PPE GF10       Mounting     Profile rail 35 mm       Mechanical data     -       Dimensions (WxHxD)     12.9 mm x 109 mm x 76.5 mm       Net weight     64 g       Gross weight     78 g       Environmental conditions     -       Operating temperature     0 °C to 60 °C       Storage temperature     -25 °C to 70 °C       Certifications     -	Between channels	
Between channels and backplane bus     yes       Between channels and power supply     -       Max. potential difference between circuits     -       Max. potential difference between inputs (Ucm)     -       Max. potential difference between inputs and Mana (Uso)     -       Max. potential difference between inputs and Mana (Uso)     -       Max. potential difference between inputs and Mana (Uso)     DC 75 V/ AC 50 V       Max. potential difference between inputs and Mintern (Uiso)     DC 75 V/ AC 50 V       Max. potential difference between Mintern and outputs     -       Insulation tested with     DC 500 V       Datasizes     -       Input bytes     5       Output bytes     1       Parameter bytes     30       Diagnostic bytes     20       Housing     Profile rail 35 mm       Mechanical data     PC / PPE GF10       Mounting     Profile rail 35 mm       Mechanical data     -       Dimensions (WxHxD)     12.9 mm x 109 mm x 76.5 mm       Net weight     64 g       Gross weight     78 g       Environmental conditions     -       Operating temperature     0 °C to 60 °C       Storage temperature     -25 °C to 70 °C       Certifications     -	Between channels of groups to	-
Max. potential difference between inputs (Ucm)       -         Max. potential difference between inputs and Mana (Ucm)       -         Max. potential difference between inputs and Mana (Ucm)       -         Max. potential difference between inputs and Mintern (Uiso)       DC 75 V/ AC 50 V         Max. potential difference between Mintern and outputs       -         Insulation tested with       DC 500 V         Datasizes       -         Input bytes       5         Output bytes       1         Parameter bytes       30         Diagnostic bytes       20         Housing       Profile rail 35 mm         Mechanical data       PC / PPE GF10         Mounting       Profile rail 35 mm         Mechanical data       64 g         Oiren serview       64 g         Gross weight       78 g         Environmental conditions       -         Operating temperature       0 °C to 60 °C         Storage temperature       0 °C to 60 °C         Storage temperature       -         UL certification       yes	Between channels and backplane bus	yes
Max. potential difference between inputs (Ucm)       -         Max. potential difference between inputs and Mana (Ucm)       -         Max. potential difference between inputs and Mana (Ucm)       -         Max. potential difference between inputs and Mintern (Uiso)       DC 75 V/ AC 50 V         Max. potential difference between inputs and Mintern (Uiso)       DC 75 V/ AC 50 V         Max. potential difference between Mintern and outputs       -         Insulation tested with       DC 500 V         Datasizes       5         Input bytes       1         Output bytes       1         Parameter bytes       30         Diagnostic bytes       20         Housing       Profile rail 35 mm         Meterial       PC / PPE GF10         Mounting       Profile rail 35 mm         Mechanical data       20         Dimensions (WxHxD)       12.9 mm x 109 mm x 76.5 mm         Net weight       64 g         Gross weight       78 g         Environmental conditions       0 °C to 60 °C         Storage temperature       0 °C to 60 °C         Storage temperature       0 °C to 60 °C         Storage temperature       0 °C to 60 °C	Between channels and power supply	
Max. potential difference between Mana and Mintern (Uiso)       -         Max. potential difference between inputs and Mana (Ucm)       -         Max. potential difference between inputs and Mintern (Uiso)       DC 75 V/ AC 50 V         Max. potential difference between Mintern and outputs       -         Insulation tested with       DC 500 V         Datasizes       5         Input bytes       5         Output bytes       1         Parameter bytes       30         Diagnostic bytes       20         Housing       Profile rail 35 mm         Mechanical data       Profile rail 35 mm         Metweight       64 9         Weight including accessories       64 9         Gross weight       78 9         Environmental conditions       -         Operating temperature       0 °C to 60 °C         Storage temperature       -25 °C to 70 °C         Certification       yes	Max. potential difference between circuits	
Max. potential difference between inputs and Mana (Ucm)       -         Max. potential difference between Mintern and outputs       -         Insulation tested with       DC 500 V         Datasizes       5         Input bytes       5         Output bytes       1         Parameter bytes       30         Diagnostic bytes       20         Housing       V         Maxethial difference between Mintern and outputs       -         Max. potential difference between Mintern and outputs       -         Insulation tested with       DC 500 V         Datasizes       5         Output bytes       1         Parameter bytes       30         Diagnostic bytes       20         Housing       PorfIle rail 35 mm         Mechanical data       21.9 mm x 109 mm x 76.5 mm         Metweight       64 g         Weight including accessories       64 g         Gross weight       78 g         Environmental conditions       -         Operating temperature       0 °C to 60 °C         Storage temperature       -25 °C to 70 °C         Certifications       -25 °C to 70 °C	Max. potential difference between inputs (Ucm)	
Max. potential difference between linputs and Mintern (Uiso)     DC 75 V/ AC 50 V       Max. potential difference between Mintern and outputs     -       Insulation tested with     DC 500 V       Datasizes       Input bytes     5       Output bytes     1       Parameter bytes     30       Diagnostic bytes     20       Housing     Profile rail 35 mm       Meterial     PC / PPE GF10       Mounting     Profile rail 35 mm       Mechanical data     2.9 mm x 109 mm x 76.5 mm       Net weight     64 g       Weight including accessories     64 g       Gross weight     78 g       Environmental conditions     0 °C to 60 °C       Storage temperature     0 °C to 60 °C       Storage temperature     25 °C to 70 °C	Max. potential difference between Mana and Mintern (Uiso)	•
Max. potential difference between Mintern and outputs       -         Insulation tested with       DC 500 V         Datasizes       5         Input bytes       5         Output bytes       1         Parameter bytes       30         Diagnostic bytes       20         Housing       PC / PPE GF10         Material       PC / PPE GF10         Mounting       Profile rail 35 mm         Mechanical data       20         Dimensions (WxHxD)       12.9 mm x 109 mm x 76.5 mm         Net weight       64 g         Gross weight       78 g         Environmental conditions       20 °C to 60 °C         Storage temperature       0 °C to 60 °C         Storage temperature       25 °C to 70 °C         Certifications       yes	Max. potential difference between inputs and Mana (Ucm)	-
Insulation tested with DC 500 V  Datasizes Input bytes 5 Output bytes 1 Parameter bytes 30 Diagnostic bytes 20 Housing Material PC / PPE GF10 Mounting PC / PPE GF10 Mounting Pc / PPE GF10  Mechanical data Dimensions (WxHxD) 12.9 mm x 109 mm x 76.5 mm Net weight 64 g Weight including accessories 64 g Gross weight 84 g Environmental conditions Operating temperature 0 °C to 60 °C Storage temperature -25 °C to 70 °C  Certifications UL certification yes	Max. potential difference between inputs and Mintern (Uiso)	DC 75 V/ AC 50 V
Datasizes         Input bytes       5         Output bytes       1         Parameter bytes       30         Diagnostic bytes       20         Housing       PC / PPE GF10         Material       PC / PPE GF10         Mounting       Profile rail 35 mm         Mechanical data       PC         Dimensions (WxHxD)       12.9 mm x 109 mm x 76.5 mm         Net weight       64 g         Gross weight       78 g         Environmental conditions       0 °C to 60 °C         Storage temperature       -25 °C to 70 °C         Certifications       yes	Max. potential difference between Mintern and outputs	-
Input bytes5Output bytes1Parameter bytes30Diagnostic bytes20Housing20MaterialPC / PPE GF10MountingProfile rail 35 mmMechanical data20Dimensions (WxHxD)12.9 mm x 109 mm x 76.5 mmNet weight64 gWeight including accessories64 gGross weight78 gEnvironmental conditions0 °C to 60 °CStorage temperature-25 °C to 70 °CCertificationsyes	Insulation tested with	DC 500 V
Output bytes1Parameter bytes30Diagnostic bytes20HousingPC / PPE GF10MaterialPC / PPE GF10MountingProfile rail 35 mmMechanical dataPCDimensions (WxHxD)12.9 mm x 109 mm x 76.5 mmNet weight64 gWeight including accessories64 gGross weight78 gEnvironmental conditions0 °C to 60 °CStorage temperature0 °C to 60 °CStorage temperature9 °C to 70 °CCertificationsyes	Datasizes	
Parameter bytes     30       Diagnostic bytes     20       Housing     PC / PPE GF10       Material     PC / PPE GF10       Mounting     Profile rail 35 mm       Mechanical data     PC       Dimensions (WxHxD)     12.9 mm x 109 mm x 76.5 mm       Net weight     64 g       Weight including accessories     64 g       Gross weight     78 g       Environmental conditions     0 °C to 60 °C       Storage temperature     0 °C to 70 °C       Certifications     yes	Input bytes	5
Diagnostic bytes     20       Housing     PC / PPE GF10       Material     PC / PPE GF10       Mounting     Profile rail 35 mm       Mechanical data        Dimensions (WxHxD)     12.9 mm x 109 mm x 76.5 mm       Net weight     64 g       Weight including accessories     64 g       Gross weight     78 g       Environmental conditions     -25 °C to 70 °C       Operating temperature     0 °C to 60 °C       Storage temperature     -25 °C to 70 °C       Certifications     yes	Output bytes	1
Housing         Material       PC / PPE GF10         Mounting       Profile rail 35 mm         Mechanical data          Dimensions (WxHxD)       12.9 mm x 109 mm x 76.5 mm         Net weight       64 g         Weight including accessories       64 g         Gross weight       78 g         Environmental conditions       0 °C to 60 °C         Storage temperature       0 °C to 70 °C         Certifications       yes	Parameter bytes	30
MaterialPC / PPE GF10MountingProfile rail 35 mmMechanical dataProfile rail 35 mmMechanical data12.9 mm x 109 mm x 76.5 mmNet weight64 gWeight including accessories64 gGross weight78 gEnvironmental conditions0 °C to 60 °CStorage temperature-25 °C to 70 °CCertificationsyes	Diagnostic bytes	20
Mounting       Profile rail 35 mm         Mechanical data       Immediate         Dimensions (WxHxD)       12.9 mm x 109 mm x 76.5 mm         Net weight       64 g         Weight including accessories       64 g         Gross weight       78 g         Environmental conditions       0 °C to 60 °C         Storage temperature       0 °C to 70 °C         Certifications       yes	Housing	
Mechanical data         Dimensions (WxHxD)       12.9 mm x 109 mm x 76.5 mm         Net weight       64 g         Weight including accessories       64 g         Gross weight       78 g         Environmental conditions       0 °C to 60 °C         Storage temperature       0 °C to 70 °C         Certifications       yes	Material	PC / PPE GF10
Dimensions (WxHxD)12.9 mm x 109 mm x 76.5 mmNet weight64 gWeight including accessories64 gGross weight78 gEnvironmental conditionsOperating temperature0 °C to 60 °CStorage temperature-25 °C to 70 °CCertificationsUL certificationyes	Mounting	Profile rail 35 mm
Net weight64 gWeight including accessories64 gGross weight78 gEnvironmental conditionsOperating temperature0 °C to 60 °CStorage temperature-25 °C to 70 °CCertificationsUL certificationyes	Mechanical data	
Weight including accessories     64 g       Gross weight     78 g       Environmental conditions     0 °C to 60 °C       Operating temperature     0 °C to 60 °C       Storage temperature     -25 °C to 70 °C       Certifications     UL certification       UL certification     yes	Dimensions (WxHxD)	12.9 mm x 109 mm x 76.5 mm
Gross weight     78 g       Environmental conditions     0 °C to 60 °C       Operating temperature     0 °C to 60 °C       Storage temperature     -25 °C to 70 °C       Certifications     UL certification	Net weight	64 g
Environmental conditions         Operating temperature       0 °C to 60 °C         Storage temperature       -25 °C to 70 °C         Certifications       UL certification         UL certification       yes	Weight including accessories	64 g
Operating temperature     0 °C to 60 °C       Storage temperature     -25 °C to 70 °C       Certifications     UL certification	Gross weight	78 g
Storage temperature     -25 °C to 70 °C       Certifications     UL certification	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 in preparation	UL certification	yes
	KC certification	in preparation