

ACT20C-8AI-MRTU-DC-S

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



The ACT20C-8AI-MRTU-DC-S monitors up to eight DC voltage signals.

The voltages are made available via an electrically isolated RS485 interface using Modbus RTU.

Application: Monitoring of H2 fuel and battery cells.

General ordering data

Version	Serial interface converter, Input : 8 x 0...10 V DC, Output : 1 x Modbus RTU, Supply voltage: 24 V DC \pm 10 %
Order No.	8000110028
Type	ACT20C-8AI-MRTU-DC-S
GTIN (EAN)	4099986000223
Qty.	1 items
Baud rate	9600, 14400, 19200, 38400, 57600, 115200 bps
Transmission channels	Half-duplex (RS485 2-wire) Full-duplex (RS485 4-wire and RS422)
Transmission distance	Max. 1200 m twisted pair
Number of Hard-	1
ware interfaces	RS485
Creation date	15.03.2026 07:37:24 MEZ
Control of data direction	automatic or via RS232 RTS/CTS
(RS485/422)	bus / Drawings
Number of devices on the 128 bus, max.	

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Technical data

Dimensions and weights

Depth	113.6 mm	Depth (inches)	4.4724 inch
Height	119.2 mm	Height (inches)	4.6929 inch
Width	22.5 mm	Width (inches)	0.8858 inch
Net weight	219.82 g		

Temperatures

Storage temperature	-40 °C...85 °C	Operating temperature	-40 °C...60 °C
Humidity	10...90 %, no condensation		

Probability of failure

SIL in compliance with IEC 61508	None
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Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	7a, 7cI
REACH SVHC	Lead 7439-92-1
SCIP	2f6dd957-421a-46db-a0c2-cf1609156924

Input

Number inputs	8	Type	Voltage input
Resolution	±1.2 mV	Input voltage	0...10 V DC
Input signal	Voltage source	Input resistance, voltage	1 MΩ
Input voltage	30 V max.	Response time	110 ms

General data

Repeat accuracy	± 0.05 %	Applications	Monitoring of H2 fuel and battery cells
Installation advice	Indoors only	Accuracy	<0.1 % of end value
Protection degree	IP20	Status indicator	LED green: supply
Supply voltage	24 V DC ± 10 %	Mounting rail	TS 35
Temperature coefficient	<0.02 % / °C	Nominal power consumption	1.5 VA
Configuration	DIP switch	Operating altitude	≤ 2000 m

Insulation coordination

Impulse withstand voltage	8 kV	EMC standards	EN 61326-1
Surge voltage category	II	Pollution severity	2
Galvanic isolation	between input/output/supply	Insulation voltage input or output/supply	5 kVrms / 1 min.
Rated voltage	1500 V DC		

Connection data

Type of connection	Screw connection	Tightening torque, min.	0.2 Nm
Tightening torque, max.	0.5 Nm	Clamping range, rated connection	2.5 mm ²
Clamping range, min.	0.5 mm ²	Clamping range, max.	2.5 mm ²

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Technical data**Part description**

Product description The ACT20C-8AI-MRTU-DC-S monitors up to eight DC voltage signals.
The voltages are made available via an electrically isolated RS485 interface using Modbus RTU.
Application: Monitoring of H2 fuel and battery cells.

Classifications

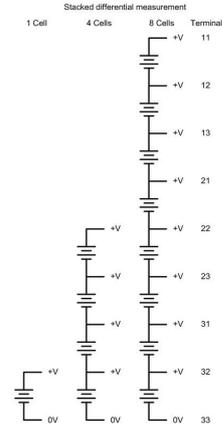
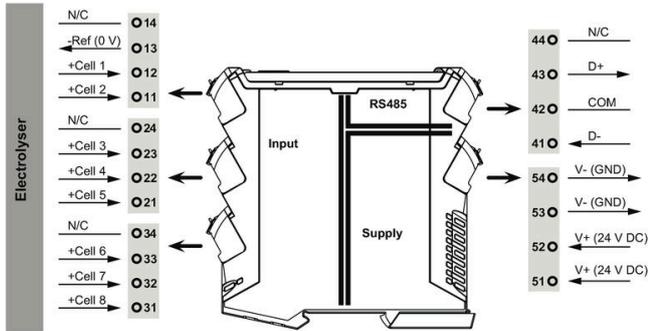
ETIM 8.0	EC000310	ETIM 9.0	EC000310
ETIM 10.0	EC000310	ECLASS 14.0	27-06-03-20
ECLASS 15.0	27-06-03-20		

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Drawings

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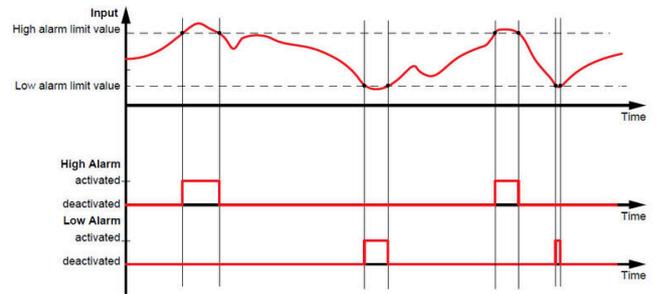


Switch Block 1	MODBUS Address							
Switch	1	2	3	4	5	6	7	8
Address increment	1	2	4	8	16	32	64	128
Example Address 37	ON	OFF	ON	OFF	OFF	ON	OFF	OFF
Example Address 115	ON	ON	OFF	OFF	ON	ON	ON	OFF

Switch Block 2	Functions							
Switch	1	2	3	4	5	6	7	8
Function	BAUD	N/A	Parity	LED	N/A	N/A	DF	MODE
Setting ON	9600	-	EVEN	FLASH	-	-	DF=X (REF.DF SET)	LOAD
Setting OFF	ON	-	NONE	STEADY	-	-	DF=1	RUN

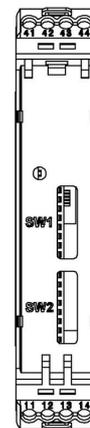
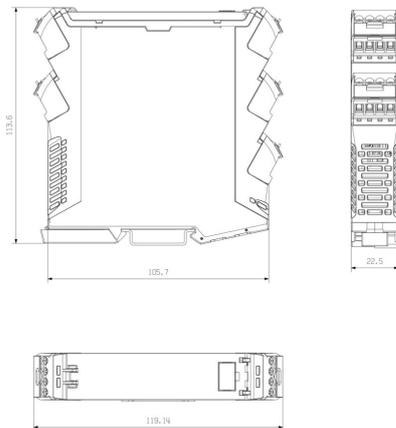
DIP switch setting

Alarm Operation



limit value setting

Dimensioned drawing



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Removable terminals

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Accessories

Voltage divider



Isolating amplifiers, passive isolators, limit switches and measuring transducers – including temperature transducers – in a terminal-block design.

Ideal for precise signal processing and reliable signal isolation in limited installation space.

- Compact 6 mm design – as flat as a terminal block
- Operating temperature up to -40 °C ... $+70\text{ °C}$ (model-dependent)
- Versions with screw or PUSH IN connection
- Selected models include QR code and status LED for easy identification

General ordering data

Type	PICOPAK-VI130-RDIV-P	Version
Order No.	3127350000	Signal converter / insulator, Input : 0...130 V DC, Output : 0-10 V,
GTIN (EAN)	4099987294935	Supply voltage: No external supply
Qty.	10 ST	
Type	PICOPAK-VI70-RDIV-P	Version
Order No.	3127370000	Signal converter / insulator, Input : 0...70 V DC, Output : 0-10 V,
GTIN (EAN)	4099987294959	Supply voltage: No external supply
Qty.	10 ST	