

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	1
Creation date	18.02.2026 11:16:52 MEZ
Control of data direction	automatic or via RS232 RTS/CTS
(RS485/422)	bus / Drawings
Number of devices on the 128 bus, max.	

ACT20C-8AI-MRTU-DC-S

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

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
----------------------------------	------

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	7a, 7cl
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

ACT20C-8AI-MRTU-DC-S

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

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

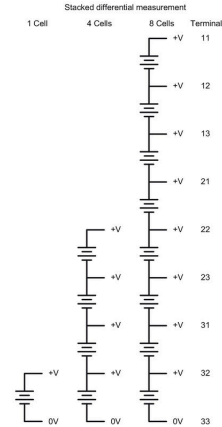
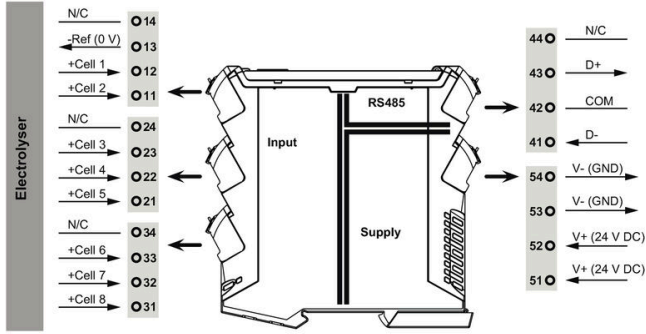
ETIM 8.0	EC000310	ETIM 9.0	EC000310
ETIM 10.0	EC000310	ECLASS 14.0	27-06-03-20
ECLASS 15.0	27-06-03-20		

ACT20C-8AI-MRTU-DC-S

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany

Drawings

www.weidmueller.com

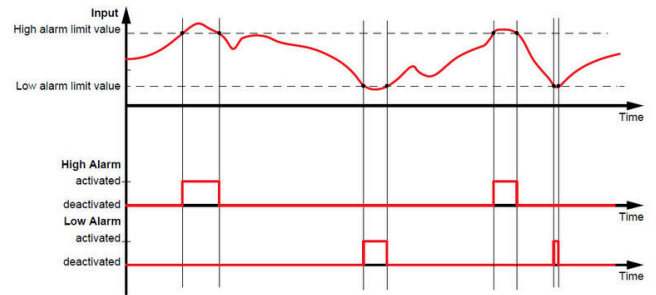


Switch Block 1	MODBUS Address							
Switch	1	2	3	4	5	6	7	8
Address increment	1	2	4	8	16	32	64	128
Example Address 37	ON	OFF	ON	OFF	OFF	ON	OFF	OFF
Example Address 115	ON	ON	OFF	OFF	ON	ON	ON	OFF

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

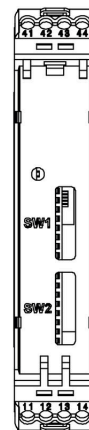
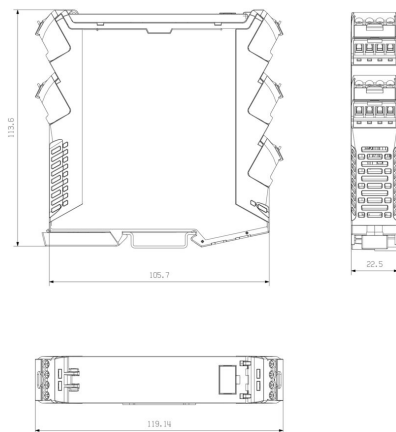
DIP switch setting

Alarm Operation



limit value setting

Dimensioned drawing



ACT20C-8AI-MRTU-DC-S

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

Drawings

www.weidmueller.com



Removable terminals

ACT20C-8AI-MRTU-DC-S

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany

www.weidmueller.com

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	