

ACT20C-CML-10-AO-RC-S

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

www.weidmueller.com



The ACT20C series was especially developed for applications with continuous processes. It enables the continuous monitoring of diagnostic, device and process information ("condition monitoring").

Several ACT20C components form a station which consists of an ACT20C Ethernet gateway, communicative ACT20C signal converters and an ACT20C bus termination terminal.

General ordering data

Version	Current-measuring transducer, Input : 0...5/10 A, Output : 0(4)-20 mA, 0-10 V, Relay
Order No.	2044840000
Type	ACT20C-CML-10-AO-RC-S
GTIN (EAN)	4050118409826
Qty.	1 items

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Technical data

Approvals

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ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULus)	E141197

Dimensions and weights

Depth	113.6 mm	Depth (inches)	4.4724 inch
Height	117.2 mm	Height (inches)	4.6142 inch
Width	17.5 mm	Width (inches)	0.689 inch
Net weight	134 g		

Temperatures

Storage temperature	-40 °C...85 °C	Operating temperature
Humidity	5...95 %, no condensation	

Probability of failure

SIL in compliance with IEC 61508	None	MTTF	130 a
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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

Input frequency	AC: 15...400 Hz (true root mean square), AC: 50 Hz (arithmetic average)	Input measurement range	configurable, 0...1/5/10 A AC (RMS) or DC
Input signal	Power cable can be connected to the terminals		

Output

Load impedance current	≤ 600 Ω
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Output (digital)

Rated switching current	2 A	Max. switching voltage, AC	250 V
Max. switching voltage, DC	24 V	Type	Relay, 1 CO contact, Process alarms (4x) with hysteresis, with alarm delay (configurable) 0...180 s

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Output (analogue)

Type (analogue output)	Voltage and current output (configurable)	Output voltage	Adjustable, 0...10 V, 2...10 V, 0...5 V, 1...5 V, -5...+5 V, -10...+10 V
Load resistance voltage	$\geq 10 \text{ k}\Omega$	Load resistance current	$\leq 600 \Omega$
Output current	Adjustable, 0...20 mA, 4...20 mA, -20...+20 mA		

alarm output

Switching current	5 A
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General data

Accuracy	$\leq \pm 0.3\% @ 1 \text{ A} / 5 \text{ A}, \leq \pm 0.6\% @ 10 \text{ A}$	Protection degree	IP20
Supply voltage	24 V DC $\pm 30\%$	Step response time	$\leq 300 \text{ ms (RMS)}, \leq 60 \text{ ms (AA)}$
Mounting rail	TS 35	Temperature coefficient	$\leq \pm 100 \text{ ppm/K} @ -25...+55^\circ\text{C}, \leq \pm 200 \text{ ppm/K} @ +55...+70^\circ\text{C}$
Nominal power consumption	3 VA	Configuration	for thresholds (overcurrent / undercurrent), delay and hysteresis, via gateway (ACT20C-GTW-100-MTCP-S). With FDT/DTM software, DIP switch and potentiometer
Power consumption, max.	2.2 W		

Insulation coordination

Impulse withstand voltage	6 kV (1.2/50 μs)	EMC standards	IEC 61326-1
Test voltage	4 kV	Surge voltage category	III
Pollution severity	2	Galvanic isolation	4-way isolator; between input / output / supply / relay
Rated voltage	300 V ACrms		

Connection data

Type of connection	Screw connection	Tightening torque, min.	0.5 Nm
Tightening torque, max.	3.5 Nm	Clamping range, rated connection	1.5 mm ²
Clamping range, min.	0.5 mm ²	Clamping range, max.	2.5 mm ²
Wire connection cross section AWG, min.	AWG 30	Wire connection cross section AWG, max.	AWG 14
Wire cross-section, solid, min.	0.5 mm ²	Wire cross-section, solid, max.	2.5 mm ²

Part description

Product description	<p>The device ACT20C-CML-10-AO-RC-S measures and monitors AC and DC currents of up to 10 A. The real effective value method used allows for precise measurement, even for distorted current curve shapes. The device features an integrated limit value monitoring function with an adjustable switching threshold, lag and hysteresis, as well as a relay output.</p> <p>Features</p> <ul style="list-style-type: none"> • Real effective value measurement (True RMS) or arithmetic averaging (AA) measurement • Limit value monitoring for overcurrent or undercurrent • Relay output by means of the open-circuit / closed-circuit principle • Infinitely variable trigger delay
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Technical data

- Operational status and error display on a front panel LED and output signalling according to NE43, NE44, NE107
- Galvanic four-way insulation for secure isolation according to IEC/EN 61010-2-201

Classifications

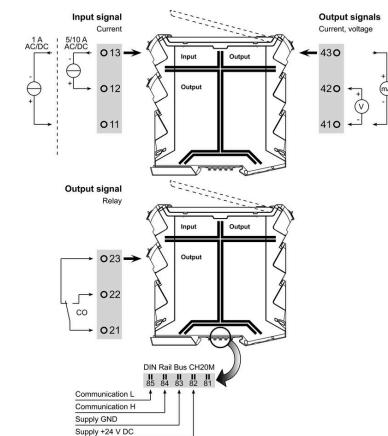
ETIM 8.0	EC002475	ETIM 9.0	EC002475
ETIM 10.0	EC002475	ECLASS 14.0	27-21-01-23
ECLASS 15.0	27-21-01-23		

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Drawings

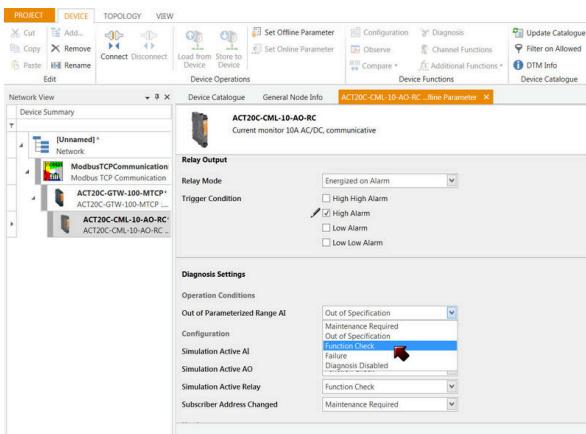


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Drawings



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Accessories

ACT20 (incl. DIN rail bus & powersupplies)



Power supply adapter modules for separate supply and distribution of the supply voltage: for the ACT20 series/ MICROSERIES signal converters.

The 22.5/6.1 mm wide power-feed modules are mounted directly adjacent to the analogue signal converters. Then the 24 VDC supply voltage is optionally bridged via the CH20M (ACT20-series) rail bus or simply bridged over using the pluggable ZQV 4N (MICROSERIES) cross-connectors.

The ACT20-Feed-In-PRO-S can also detect faults coming from any of the devices mounted on the CH20 bus mounting profile.

In the event of an error or fault, the integrated status relay sends a common alarm to the external controller. In addition, two power supply units (as primary and backup supply) can be connected to the ACT20 Feed-In PRO-S.

Two feed-in modules mounted to the CH20 bus mounting profile guarantee a 100% redundant power supply.

Three LEDs are used to show the status of the power supply and error messages.

The ACT20M-Feed-In PRO can also be used in Ex zone2 / Division2 applications.

General ordering data

Type	SAMPLE CH20M BUS 250MM	Version
	...	
Order No.	1335140000	Mounting rail bus system, Sample set, OMNIMATE Housing - series
GTIN (EAN)	4050118138375	CH20M, Width: 25.1 mm
Qty.	1 ST	

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Accessories

CH20M BUS SET - Kit



The integrated rail bus for the modular electronics housing system
When supplying, connecting or distributing within modular applications, the rail bus can replace the tedious individual wiring process with a flexible and uninterrupted system-wide solution.

The system bus is securely integrated within the 35-mm standard mounting rail. The SMD-bus contact block can be reflow-soldered so that it can be completely automatically processed during the component assembly. The resistant, gold-plated contact surfaces ensure a permanent and reliable contact for all housing widths.

- Unlimited scalability The integrated connection solution covers all system widths: from the 6-mm slice to the 67-mm large-area housing.
- Easy to service during installation It's easy to replace a module, even in existing modules groups – without any influence on the neighbouring modules.
- Universal integration The uninterrupted system bus is securely integrated within the 35-mm standard mounting rail.
- Maximum availability Five fully-galvanized and partially gold-plated twin-arched contacts are used to establish a permanent contact to the rail bus. THR solder flanges ensure that the connection to the circuit board is stable.

General ordering data

Type	SAMPLE CH20M BUS 250MM	Version	
	...		
Order No.	1335150000	Mounting rail bus system, Sample set, OMNIMATE Housing - series	
GTIN (EAN)	4050118138382	CH20M, Width: 25.1 mm	
Qty.	1 ST		

Network-compatible current measuring transducers ACT20C



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General ordering data

Type	ACT20C-LBT-10	Version	
Order No.	1510340000	Bus termination terminal for ACT20C station, Input : 0...40/50/60 A,	
GTIN (EAN)	4050118319491	Output : Pulse	
Qty.	1 ST		

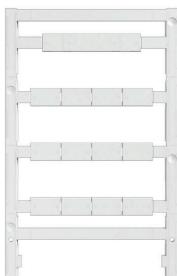
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Accessories

Blank



ESG is the tried-and-tested marker in MultiCard format for use on many well-known electrical devices. The result is high-quality device marking with a high-contrast appearance.

Various types are available for devices from manufacturers like Siemens, ABB, Beckhoff etc.

Advantages at a glance:

- Tags for universal usage, self-adhesive or clip-on tags, depending on type
- For aligned equipment, e.g. circuit breakers, we supply ESG markers for clipping onto tag rails
- Individual laser-quality printing according to specifications

For custom printing: Please send us a file of our labeling software M-Print PRO or M-Print PRO Online (without installation) for your labeling specifications.

General ordering data

Type	ESG 8/13.5/43.3 SAI AU	Version
Order No.	1912130000	ESG, Device markers x 13.5 mm, PA 66, Colour: Transparent,
GTIN (EAN)	4032248541164	pluggable
Qty.	5 ST	
Type	ESG 6.6/15 BHZ 5.00/03	Version
Order No.	1082520000	ESG, Device markers x 15 mm, PA 66, Colour: white, pluggable
GTIN (EAN)	4032248845323	
Qty.	200 ST	