

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

www.weidmueller.com

## **Product image, Similar to illustration**













## **ACT20M: The slim solution**

- Safe and space-saving (6 mm) isolation and conversion
- Quick installation of the power supply unit using the CH20M mounting rail bus
- Easy configuration via DIP switch or FDT/DTM software
- Extensive approvals such as ATEX, IECEX, GL, DNV
- High interference resistance

#### **General ordering data**

Version	Signal converter/insulator, Signal converter/isolator, Input: 0(4)-20 mA, Output: 0(4)-20 mA
Order No.	<u>1175980000</u>
Туре	ACT20M-CI-CO-S
GTIN (EAN)	4032248970131
Qty.	1 pc(s).



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## **Technical data**

-			
Dim	ensions	and	weights

114.3 mm	Depth (inches)	4.5 inch
112.5 mm	Height (inches)	4.429 inch
6.1 mm	Width (inches)	0.24 inch
87 g		
	112.5 mm 6.1 mm	112.5 mm Height (inches) 6.1 mm Width (inches)

#### **Temperatures**

Storage temperature	-40 °C85 °C	Operating temperature	-25 °C70 °C
Humidity	40 °C / 93 % rel. humidity,		
	no condensation		

## **Probability of failure**

SIL in compliance with IEC 61508	None	MTBF	284 Years

## **Environmental Product Compliance**

REACH SVHC	Lead 7439-92-1

#### Input

Input current	020 mA, 420mA	Input resistance, current	70 Ω
Number of inputs		Sensor	Current source, Sensor with own supply, 4-wire
	1		sensor
Voltage drop, current input	< 1.5 V		

## Output

Cut-off frequency (-3 dB)	100 Hz	Load impedance current	≤ 600 Ω, @ max 23mA
Number of outputs	1	Output current	020 mA, 420 mA
Туре	active, connected control must be passive		

#### **General data**

Accuracy	< 0.05 % of measuring	Configuration	
	range	<u> </u>	none
Galvanic isolation	3-way isolator	Power consumption, max.	0.8 W
Power consumption, typ.	0.45 W	Rail	TS 35
Step response time	≤ 7 ms	Temperature coefficient	≤ 0.01 % / °C
Type of connection	Screw connection	Voltage supply	24 V DC ±30 % at terminal or via CH20M rail bus

#### **Insulation coordination**

EMC standards	IEC 61326-1, NE 21	Galvanic isolation	3-way isolator
Insulation voltage	2.5 kV <sub>eff</sub> /1 min.	Pollution severity	2
Rated voltage	300 V <sub>eff</sub>	Surge voltage category	<del></del>

## **Data for Ex applications (ATEX)**

Marking	II 3 G Ex nA IIC T4 Gc



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## **Technical data**

#### **Connection data**

Type of connection	Screw connection	Tightening torque, min.	0.4 Nm
Tightening torque, max.	0.6 Nm	Clamping range, rated connection	2.5 mm <sup>2</sup>
Clamping range, min.	0.5 mm <sup>2</sup>	Clamping range, max.	2.5 mm <sup>2</sup>
Wire connection cross section AWG,		Wire connection cross section AWG,	
min.	AWG 30	max.	AWG 14

## **EMC** conformity and approvals

EMC standards	IEC 61326-1, NE 21	Standards	IEC 61010-1

#### Classifications

ETIM 6.0	EC002653	ETIM 7.0	EC002653
ETIM 8.0	EC002653	ECLASS 9.0	27-21-01-20
ECLASS 9.1	27-21-01-20	ECLASS 10.0	27-21-01-20
FCLASS 11.0	27-21-01-20		

#### **Tender specification sheets**

Long specification	Short specification

Standard signal isolating amplifier 1-channel signal isolating amplifier in 6.1 mm width with external power supply, for transmitting and isolating analogue DC current signals from 0/4 to 20 mA

#### Type ACT20M-CI-CO-S

## Important note

Product information

The non-adjustable DC isolating amplifier ACT20M-CI-CO-S isolates analogue standard current signals. An analogue input current signal is linearly converted to an analogue output current signal and is galvanically isolated. The power supply is galvanically isolated from the input and output (3-way isolation) by means of direct wiring or the Weidmüller rail bus.

The non-adjustable DC isolation amplifier ACT20M CI-2CO-S offers the same functionality, but has 2 galvanically isolated outputs (4-way isolation).

#### **Approvals**

Approvals



ROHS	Conform
UL File Number Search	E337701



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## **Technical data**

#### **Downloads**

Approval/Certificate/Document of	DNV-GL certificate
Conformity	FM certificate
	IECEXx certificate
	ATEX certificate
	Declaration of Conformity
Engineering Data	CAD data – STEP
Engineering Data	EPLAN, WSCAD, Zuken E3.S
User Documentation	Instruction sheet
Catalogues	Catalogues in PDF-format
Brochures	



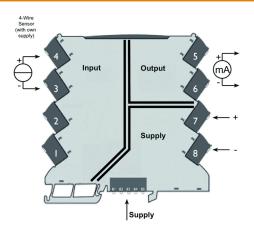
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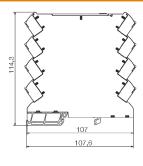
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# **Drawings**

## **Connection diagram**









Power supply via the rail bus



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## **Accessories**

#### **Network-compatible current measuring transducers ACT20C**



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

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

Type SET CH20M BUS 250MM TS ... Version

Order No. 1335140000 OMNIMATE Housing - series CH20M, Length: 250 mm, Width: 25.1

GTIN (EAN) 4050118138375 m

Qty. 1 pc(s).

#### **Blank**



MultiFit is the Weidmüller marker system used for other makes of terminals. Similar to the Weidmüller Dekafix, the markers of the MultiFit family are available ready-foruse with standard printing.

We recommend to carry out a test with sample markers on the terminals used when using MultiFit for the first time.

- One marker, suitable for different makes of terminals.
- · Ready-to-use markers with standard printing
- Blank markers for printing with the PrintJet CONNECT or Plotter
- Delivery of individually printed markers according to customer CAE data or specifications
- One marking system for all applications

**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 MF 5/7.5 MC NE WS Version

Order No. 1877680000 MultiFit, Terminal marker, 5 x 7.5 mm, Pitch in mm (P): 7.50 Adels

GTIN (EAN) 4032248468270 RKW, Phoenix, white

2ty. 320 pc(s).



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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

ype ACT20-FEED-IN-BASIC-S Version

Order No. 1282490000 Supply module, Distributes supply voltage to rail bus

GTIN (EAN) 4050118072730

Qty. 1 pc(s).

# **Mouser Electronics**

**Authorized Distributor** 

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<u>Weidmuller</u>: 1175980000