

**ACT20M-UI-AO-P****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product not yet available,  
preliminary product data.



The software configurable Universal Transmitter ACT20M-UI-AO-S separates and converts standard analogue signals. An analogue input signal (voltage, current, resistance, potentiometer, RTD, TC) is converted linear and galvanic isolated into an analogue output signal. The input may also operate as an active current loop (the loop current provided by the device). The power supply is galvanically isolated from input and output and happens via a direct wiring or the Weidmüller DIN Rail Bus (3-way isolation).

**General ordering data**

Version	Temperature converter, Input : universal U, I, R, S, Output : I / U
Order No.	<a href="#">2825440000</a>
Type	ACT20M-UI-AO-P
GTIN (EAN)	4064675361251
Qty.	1 items

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**Technical data**

**Dimensions and weights**

Net weight 0 g

**Temperatures**

Storage temperature	-40 °C...85 °C	Operating temperature
Humidity	40 °C / 93 % rel. humidity, 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, 7cI
REACH SVHC	Lead 7439-92-1
SCIP	2f6dd957-421a-46db-a0c2-cf1609156924

**Input**

Sensor	Thermocouples: B / C / E / J / K / L / N / R / S / T / W3 / W5 - 200...+ 2300 °C depending on thermocouple, RTD: PT10, PT20, PT50, PT100, PT250, PT300, PT400, PT500, PT1000, Ni50, Ni100, Ni120, Ni1000, 2-/3-/4-wire	Number inputs	1
Potentiometer	10...100 kΩ	Sensor supply	> 15 V DC at 20 mA
Input voltage	configurable, 0(2)...10 V, 0(1)...5 V, 0...1 V DC, 0,2...1 V DC	Temperature input range	Configurable, min. measurement range 10°C (RTD), min. measurement range 50°C (TC), PT100: -200°C...850 °C, NI100: -60°C...+250 °C, TC type: B (0...+1820 °C), E: (-100...+1000 °C), J: (-100...+1200 °C), K: (-180...+1372 °C), L: (-200...+900 °C), N: (-180...+1300 °C), R: (-50...+1760 °C), S: (-50...+1760 °C), T: (-200...+400 °C), U: (-200...+600 °C), W3: (0...+2300 °C), W5: (0...+2300 °C), LR: (-200...+800 °C), Details under Downloads "Measuring range Table ACT20M-UI-AO"
Resistance	0...10 kΩ	Input current	configurable, 0...20 mA, 4...20mA
Input resistance, voltage	> 10 MΩ	Voltage drop, current input	<3 V

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## Technical data

## Output

Number of outputs	1	load impedance voltage	≥ 10 kΩ
Load impedance current	≤ 600 Ω, @ max 28mA, <600 Ω	Wire break detection	Yes, if using RTD / POT / TC
Type	active, connected control must be passive	Output voltage, note	configurable, 0(2)...10 V, 0(1)...5 V, 0(0,2)...1 V, 5...(1)0 V, 10...(2)0 V, downscale (0 V), upscale (11 V), in case of sensor error
Output current	configurable, 0...20 mA, 4...20 mA, 20...0 mA, 20...4 mA, downscale (3,5 mA), upscale (23 mA), in case of sensor error	Cut-off frequency (-3 dB)	100 Hz

## General data

Accuracy	<0.1 % of measuring range	Protection degree	IP20
Supply voltage	24 V DC ±30 % at terminal or via CH20M rail bus	Step response time	400 ms (10...90%) @ U/I, 1 s @ temp
Mounting rail	TS 35	Temperature coefficient	≤ 0.01 % / °C
Nominal power consumption	1.2 VA	Configuration	With FDT/DTM software, Requires configuration adapter 8978580000 CBX200 USB
Operating altitude	≤ 2000 m	Power consumption, max.	1.2 W
Power consumption, typ.	0.84 W		

## Insulation coordination

EMC standards	IEC 61326-1, NE 21	Surge voltage category	II
Pollution severity	2	Galvanic isolation	3-way isolator
Insulation voltage	2.5 kVeff / 1 min.	Rated voltage	300 Veff

## Data for Ex applications (ATEX)

Marking	II 3 G Ex nA IIC T4 Gc	Installation location	Device installed in safe area, zone 2
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## Connection data

Type of connection	PUSH IN	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, min.	AWG 30	Wire connection cross section AWG, max.	AWG 14

## EMC conformity and approvals

EMC standards	IEC 61326-1, NE 21
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## Part description

Product description	The software configurable Universal Transmitter ACT20M-UI-AO-S separates and converts standard analogue signals. An analogue input signal (voltage, current, resistance, potentiometer, RTD, TC) is converted linear and galvanic isolated into an analogue output signal. The input may also operate as an active current loop (the loop current provided by the device). The power supply is galvanically isolated from input and output and happens via a direct wiring or the Weidmüller DIN Rail Bus (3-way isolation).
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**Technical data**

**Classifications**

ETIM 8.0	EC002653	ETIM 9.0	EC002653
ETIM 10.0	EC002653	ECLASS 14.0	27-21-01-20
ECLASS 15.0	27-21-01-20		

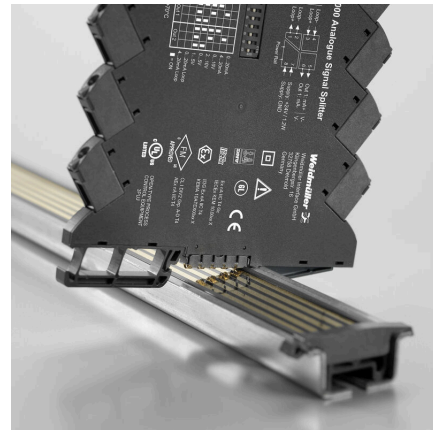
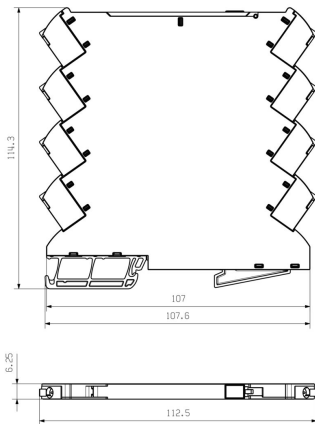
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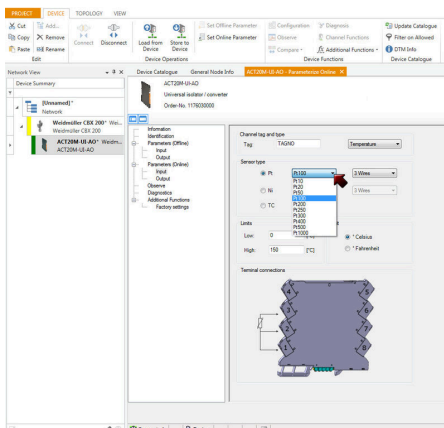
Drawings

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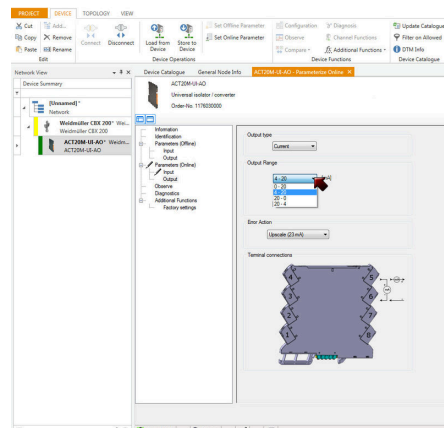
Dimensional drawing



Power supply via the rail bus (housing example)



screenshot, setup temperature input with FDT2 / DTM software



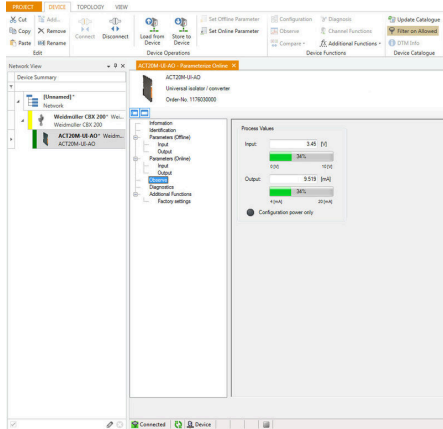
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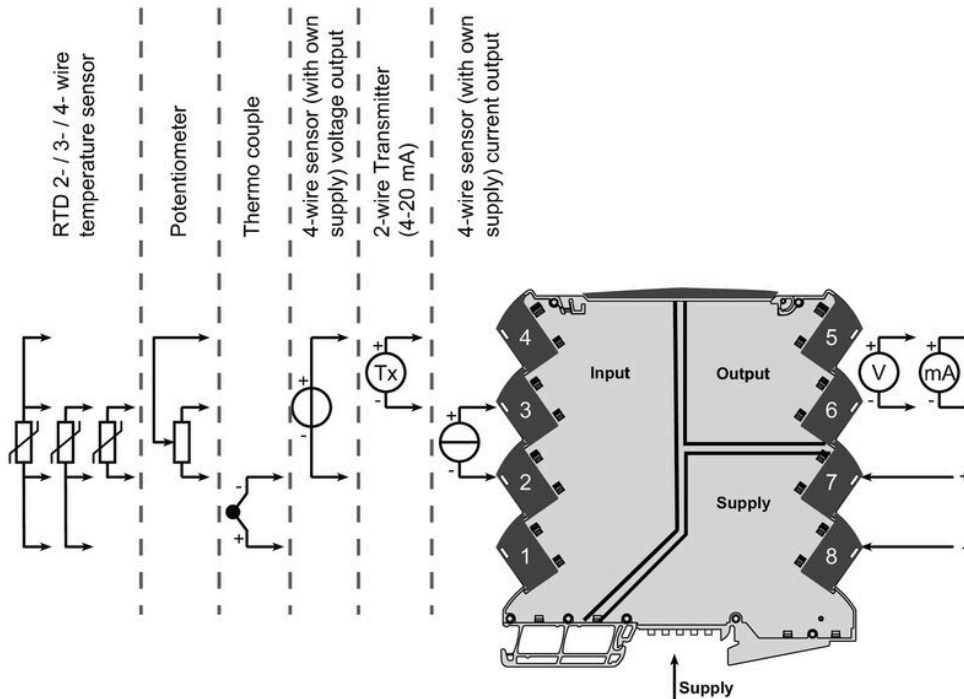
**Drawings**

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screenshot, setup output with FDT2 / DTM software

**Connection diagram**



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## Accessories

### 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-for-use 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.	<a href="#">1877680000</a>	MultiFit, Terminal marker, 5 x 7.5 mm, Pitch in mm (P): 7.50 Adels	
GTIN (EAN)	4032248468270	RKW, Phoenix, white	
Qty.	320 ST		

### ACT20-FEED-IN



### General ordering data

Type	ACT20-FEED-IN-BASIC-S	Version	
Order No.	<a href="#">1282490000</a>	Supply module, Distributes supply voltage to rail bus	
GTIN (EAN)	4050118072730		
Qty.	1 ST		

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## 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.	<a href="#">1335150000</a>	Mounting rail bus system, Sample set, OMNIMATE Housing - series
GTIN (EAN)	4050118138382	CH20M, Width: 25.1 mm
Qty.	1 ST	
Type	SAMPLE CH20M BUS 250MM	Version
	...	
Order No.	<a href="#">1335140000</a>	Mounting rail bus system, Sample set, OMNIMATE Housing - series
GTIN (EAN)	4050118138375	CH20M, Width: 25.1 mm
Qty.	1 ST	