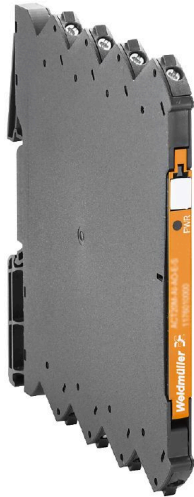


**ACT20M-FRQ-AO-S****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**Product image, Similar to illustration**

The universal frequency measuring transducer, which can be configured via software, disconnects and converts input signals (frequency, Namur, NPN, PNP, speedometer, TTL and S0) into an active analogue standard output signal. The power supply is galvanically isolated from the input and output (3-way isolation) by means of direct wiring. The model ACT20M-FRQ-AO-S can be supplied via the Weidmüller DIN rail bus

**General ordering data**

Version	Frequency signal converter, including rail bus supply, Input : Frequency, Output : 0(4)-20 mA, 0(2)-10 V
Order No.	<a href="#">2825020000</a>
Type	ACT20M-FRQ-AO-S
GTIN (EAN)	4064675360834
Qty.	1 items

## ACT20M-FRQ-AO-S

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## Technical data

## Approvals

ROHS	Conform
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## Dimensions and weights

Depth	114.3 mm	Depth (inches)	4.5 inch
Height	112.5 mm	Height (inches)	4.4291 inch
Width	6.1 mm	Width (inches)	0.2402 inch
Net weight	80 g		

## Temperatures

Storage temperature	-40 °C...85 °C	Operating temperature	-25 °C...70 °C
Humidity	0...95 % (no condensation)		

## 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

Sensor	NAMUR sensor, according to EN60947-5-6, NPN / PNP transistor (trig-level low: $\leq 4$ V high: $\geq 7$ V), TTL (trig-level low: $\leq 0.8$ V high: $\geq 2.0$ V), Tacho (trig-level low: $\leq 50$ mV high: $\geq +50$ mV), Special current (trig-level: user-defined), Special voltage (trig-level: user-defined), S0 (trig-level low: $\leq 2.2$ mA high: $\geq 9.0$ mA)	Number inputs	1
Input frequency	adjustable, 0...100kHz	Sensor supply	5...17 V

## Output

Number of outputs	1	load impedance voltage	$\geq 10$ k $\Omega$
Load impedance current	$\leq 600$ $\Omega$	Type	active, connected control must be passive
Output voltage, note	0(2)...10 V, 0(1)...5 V, 0(0,2)...1 V	Output current	0...20 mA, 4...20 mA, in case of sensor error, downscale (3,5 mA), upscale (23 mA)
Output behaviour on failure downscale	3.5 mA	Output behaviour on failure upscale	23 mA
Output signal limit	<28 mA		

## General data

Accuracy	Basic accuracy: 0.0002 Hz	Protection degree	IP20
Supply voltage	24 V DC $\pm 30$ % at terminal or via CH20M rail bus	Step response time	$\leq 30$ ms, (0...90% / 100...10% of input level)

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**Technical data**

Mounting rail	TS 35	Temperature coefficient	≤0,01% of measurement range/°C
Nominal power consumption	0.5 VA	Configuration	DIP switch or via FDT/DTM software
Operating altitude	≤ 2000 m	Power consumption, max.	1.2 W
Power consumption, typ.	0.65 W		

**Insulation coordination**

EMC standards	IEC 61326-1	Surge voltage category	II
Pollution severity	2	Galvanic isolation	3-way isolator
Insulation voltage	2.5 kVeff /1 min.	Rated voltage	250 V, 300 V

**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, min.	AWG 30	Wire connection cross section AWG, max.	AWG 14

**EMC conformity and approvals**

EMC standards	IEC 61326-1	Standards	IEC 61010-1
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**Part description**

Product description	The universal frequency measuring transducer, which can be configured via software, disconnects and converts input signals (frequency, Namur, NPN, PNP, speedometer, TTL and S0) into an active analogue standard output signal. The power supply is galvanically isolated from the input and output (3-way isolation) by means of direct wiring. The model ACT20M-FRQ-AO-S can be supplied via the Weidmüller DIN rail bus
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**Classifications**

ETIM 6.0	EC002918	ETIM 7.0	EC002918
ETIM 8.0	EC002918	ETIM 9.0	EC002918
ETIM 10.0	EC002918	ECLASS 9.0	27-21-01-28
ECLASS 9.1	27-21-01-28	ECLASS 10.0	27-21-01-28
ECLASS 11.0	27-21-01-28	ECLASS 12.0	27-21-01-28
ECLASS 13.0	27-21-01-28	ECLASS 14.0	27-21-01-28
ECLASS 15.0	27-21-01-28		

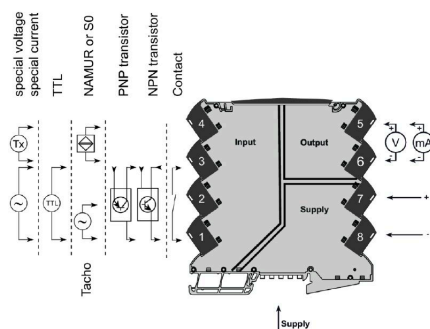
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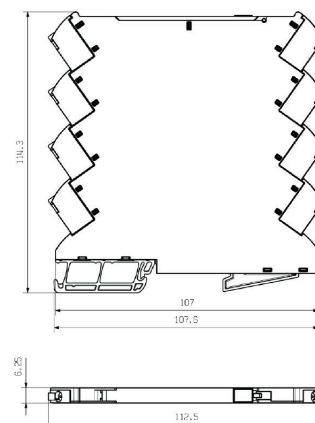
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## Drawings

### Connection diagram



### Dimensional drawing



Additional power supply option via bus

# ACT20M-FRQ-AO-S

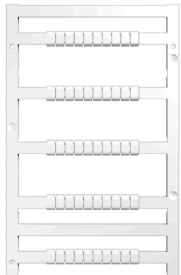
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## Accessories

### 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		

### Configuration interfaces



### General ordering data

Type	CBX200 USB	Version	
Order No.	<a href="#">8978580000</a>		
GTIN (EAN)	4032248813759		
Qty.	1 ST		

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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	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	

## ACT20M-FRQ-AO-S

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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	SET CH20M BUS 250MM TS ...	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	

### 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 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.	<a href="#">1335140000</a>	Mounting rail bus system, Sample set, OMNIMATE Housing - series
GTIN (EAN)	4050118138375	CH20M, Width: 25.1 mm
Qty.	1 ST	