

# Energy Management

## Compact Transducer for AC Measurements

### Type CVT-DIN AV1/AV4/AV5

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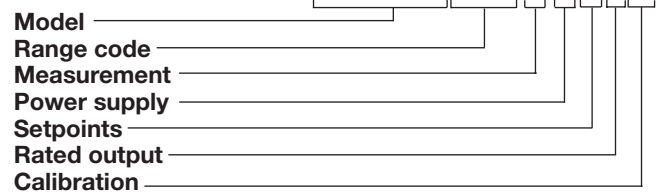
- For AC current/voltage measurement
- Field adjustment capability
- For DIN-rail mounting
- Degree of protection: IP 50

### Product Description

Compact transducer for AC current/voltage measurements with field adjustment capability. The housing is for DIN-rail mounting and ensures a degree of protection of IP 50.

### Ordering Key

**CVT-DIN AV5AD01X**



### Type Selection

Range code	Power supply	Rated output	Calibration
<b>AV1:</b> 100 VAC - 1 AAC (max. 120 VAC - 1.2 A)	<b>A:</b> 24 VAC, -15% +10%, 50/60 Hz <sup>1)</sup>	<b>1:</b> Analogue output 0 to 20 mA (standard)	<b>X:</b> Standard calibration
<b>AV4:</b> 100 VAC - 5 AAC (max. 120 VAC - 6 A)	<b>B:</b> 48 VAC, -15% +10%, 50/60 Hz <sup>1)</sup>	<b>2:</b> Analogue output 4 to 20 mADC <sup>1)</sup>	<b>Y:</b> Special calibration, use "Y" followed by requested value
<b>AV5:</b> 500 VAC - 5 AAC (max. 600 VAC - 6 A)	<b>C:</b> 115 VAC, -15% +10%, 50/60 Hz <sup>1)</sup>	<b>3:</b> Analogue output 0 to 10 VDC <sup>1)</sup>	
	<b>D:</b> 230 VAC, -15% +10%, 50/60 Hz (standard)	<b>4:</b> Analogue output 0 to ±1 VDC <sup>1)</sup>	

<sup>1)</sup> On request

### Input Specifications

<b>Accuracy</b> (@ 25°C ± 5°C, R.H. ≤ 60%)	± 0.5% f.s., (0.1 In/Un to 1 In/Un)	<b>AC frequency range</b>	48 to 62 Hz
Additional errors:	The given accuracy already includes: frequency, power supply, output load influences	<b>Overload protection</b>	
Humidity	< 0.3%, 60% to 90% R.H.	Cont.: Current:	1.2 x rated input
Input frequency	< 0.4%, 62 to 400 Hz	Voltage:	1.2 x rated input
Magnetic field	< 0.5%, @ 400 A/m	For 1 s: Current:	20 x rated input
		Voltage:	2 x rated input
<b>Ripple</b>	≤ 1% according to IEC 60688-1 and EN 60688-1		
<b>Rated input</b>			
AV1:	1 A (1 V internal shunt/1 Ω imp)/ 100 VAC (200 kΩ impedance)		
AV4:	5 A (250 mV internal shunt/ 0,05 Ω impedance) / 100 VAC (200 kΩ imp.)		
AV5:	5 A (250 mV internal shunt/ 0,05 Ω impedance) / 500 VAC (1 MΩ imp.)		



## General Specifications

Warm-up time	15 minutes
Operating temperature	0 to 50°C (32 to 122°F) (R.H. < 90% non-condensing)
Storage temperature	-10 to 60°C (14 to 140°F) (R.H. < 90% non-condensing)
Insulation reference voltage	300 V <sub>rms</sub> to ground
Insulation	2000 V <sub>rms</sub> between output and measuring input, output and supply input. 4000 V <sub>rms</sub> between input/output and ground
Dielectric strength	4000 V <sub>rms</sub> for 1 minute
Noise rejection CMRR	≥ 80 dB, 48 to 62 Hz
EMC	EN 50081-1, EN 50082-1

<b>Safety standards</b>	
Safety requirements	IEC 601010-1, EN 61010-1
Product requirements	IEC 60688-1, EN 60688-1
<b>Connector</b>	Screw-type, max. 2.5 mm <sup>2</sup> wires
<b>Housing</b>	
Dimensions	4-DIN modules, 58.5 x 89 x 71.5 mm
Material	ABS, self-extinguishing: UL 94 V-0
<b>Degree of protection</b>	IP 50
<b>Weight</b>	300 g approx. (packing included)
<b>Approval</b>	CE

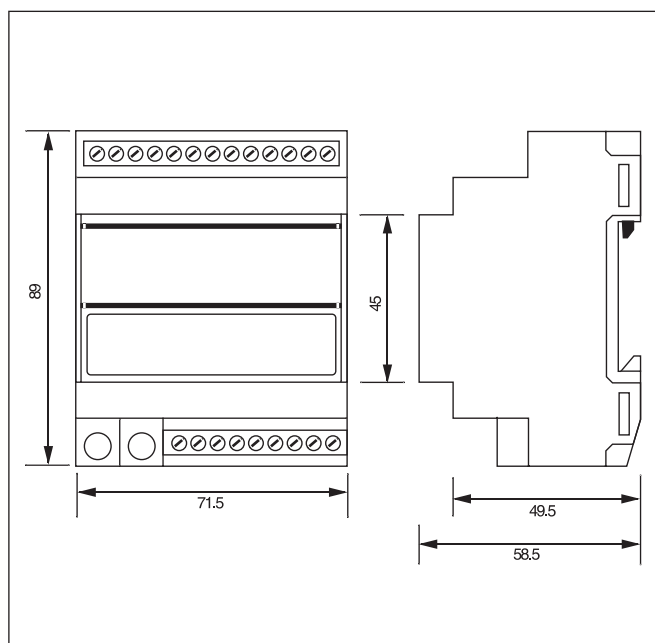
## Output Specifications

<b>Range/load</b>	
0 to 20 mA	Load: ≤ 500 Ω
4 to 20 mA	Load: ≤ 500 Ω
0 to 10 V	Load: ≥ 10 kΩ
0 to ±1 V	Load: ≥ 10 kΩ
<b>Adjustment</b>	Easy field adjustment from 50 to 130% of the I/U inputs which can be modified without any calibrator being requested
<b>Response time</b>	300 ms typical
<b>Temperature drift</b>	200 ppm/°C

## Supply Specifications

<b>AC supply</b>	230 VAC, -15% +10%, 50/60 Hz (standard) 24 VAC, 48 VAC, 115 VAC, -15% +10%, 50/60 Hz (on request)
<b>Power consumption</b>	≤ 5 VA

## Dimensions



## Connections

