

Energy Management

Compact Transducer for AC Measurements

Type CVT-DIN AV1/AV4/AV5

CARLO GAVAZZI



- 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

Model _____
Range code _____
Measurement _____
Power supply _____
Setpoints _____
Rated output _____
Calibration _____

Type Selection

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

¹⁾ On request

Input Specifications

Accuracy (@ 25°C $\pm 5^\circ\text{C}$, R.H. $\leq 60\%$)	$\pm 0.5\%$ f.s., (0.1 In/Un to 1 In/Un)	AC frequency range	48 to 62 Hz
Additional errors:	The given accuracy already includes: frequency, power supply, output load influences	Overload protection	
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
Ripple	$\leq 1\%$ according to IEC 60688-1 and EN 60688-1		
Rated input			
AV1:	1 A (1 V internal shunt/1 Ω imp)/ 100 VAC (200 k Ω impedance)		
AV4:	5 A (250 mV internal shunt/ 0,05 Ω impedance) / 100 VAC (200 k Ω imp.)		
AV5:	5 A (250 mV internal shunt/ 0,05 Ω impedance) / 500 VAC (1 M Ω 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 _{rms} to ground
Insulation	2000 V _{rms} between output and measuring input, output and supply input. 4000 V _{rms} between input/output and ground
Dielectric strength	4000 V _{rms} for 1 minute
Noise rejection CMRR	≥ 80 dB, 48 to 62 Hz
EMC	EN 50081-1, EN 50082-1

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

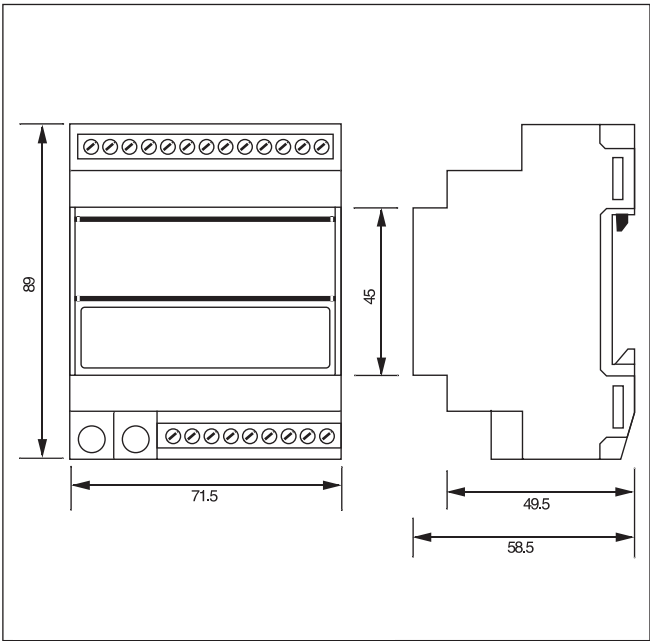
Output Specifications

Range/load	
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
Adjustment	Easy field adjustment from 50 to 130% of the I/U inputs which can be modified with- out any calibrator being re- quested
Response time	300 ms typical
Temperature drift	200 ppm/°C

Supply Specifications

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

Dimensions



Connections

