

- **Measure of sinusoidal alternating signals**

(voltage or current)

- **Galvanic insulation** (up to 5000V)

- **Accuracy:** +/- 0.5 %

- **CAL45CA:**

measure 5Aac ; 500Vac

- **CAL45CAD:**

measure: up to 5Aac ; 1000Vac



CAL45CAD

CAL45CA

The CAL45CA family allow to transform alternating voltages or current into a 4-20 mA output current proportional to the input value. The use of loop powered (the converter is powered by 4-20mA loop) allow to reduce the wiring.

DESCRIPTION:

Measures: (according to model)

- Alternating voltage from 250 mV to 1000V
- Alternating current from 100uA to 5A on terminal block
- Alternating current from 1A to 5A

Output:

- current 4-20 mA
(2 wires technique, loop powered)

Features:

- DIN rail mounting (IP20 case),
- connecting on screw terminals (2,5 mm² wire gauge).
- galvanic insulation (input/output)
- Setting to the user's measure range at the end of manufacturing,
- scale readjustment possible with multi-turn potentiometers,
- protection against overvoltage or overcurrent,
- protection against reverse polarity,
- output current control by "test terminals"
without open the current loop (green LED is off),
- green Led power on indicator.

Version and order code :

CAL45CA :

- AC sinusoidal signals
- Maximum input measure 5Aac; 500Vac
(all ranges from 100uA to 5 Adc, from 20 to 1000 Hz)

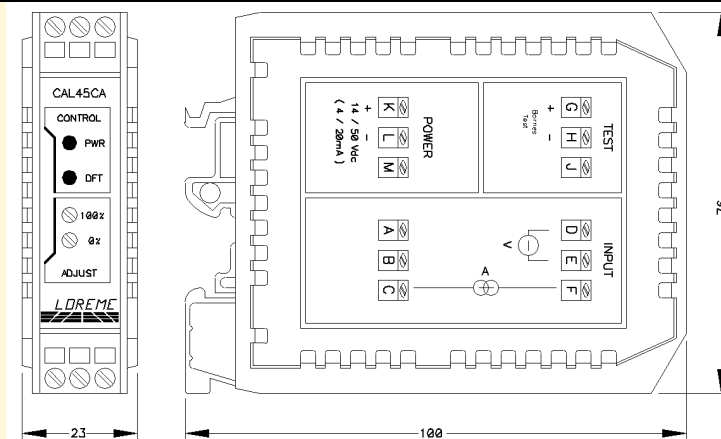
CAL45CAD :

- Dedicated version for sinusoidal alternative signals measurement.
- Improved insulation > 5 KV

INPUT (standard)		OUTPUT / POWER SUPPLY	
TYPE:	VALUE	Loop power supply	10 to 40 Vdc (CAL45CAD, CAL45CAH) 14 to 40 Vdc (CAL45CA)
CAL45CA and CAL45CAD		Current output	4 ... 20 mA current loop
Voltage (ac)	500 V	Load with 24V power	750 Ohms (CAL45CAD, CAL45CAH) 500 Ohms (CAL45CA)
Impedance	> 1 MOhms	Power supply influence:	20 ppm / V
Continuous overload	2 VN	Load influence:	40 ppm / 100 Ohms
Absorbed power	0.25 W	Linearity error	0.25 % typical
		Accuracy	+/- 0.5 %
		Response time	< 200 ms (for 63% of step)
		Residual ripple (noise)	< 20 mV
		ENVIRONMENT	
		Operating temperature	-10 to 60 °C
		Storage temperature	-25 to +85 °C
		Influence (% of the full scale)	0.05 % / °C
		Relative humidity	85 % not condensed
		Weight	200 g
		Vibration resistance	2 g p.p at 100 Hz
		Protection rating	IP20
		Recommended assembly direction	Vertical / horizontal
		Dielectric strength	2000 Vac (CAL45CA) 5000 Vac (CAL45CAD)
		(Inputs/Outputs)	
		MTBF (MIL HDBK 217F)	> 4 000 000 Hrs @ 25°C
		Life time	> 170 000 Hrs @ 30°C
		Electromagnetic compatibility 2014/30/UE / Low Voltage Directive 2014/35/UE	
		Immunity standard for industrial environments EN 61000-6-2	Emission standard for industrial environments EN 61000-6-4
		EN 61000-4-2 ESD	EN 61000-4-8 AC MF
		EN 61000-4-3 RF	EN 61000-4-9 pulse MF
		EN 61000-4-4 EFT	EN 61000-4-11 AC dips
		EN 61000-4-5 CWG	EN 61000-4-12 ring wave
		EN 61000-4-6 RF	EN 61000-4-29 DC dips
		EN 55011 group 1 class A	
			
Using frequency range	dc or 20...1000 Hz(CAL45CA) 40...500 Hz (CAL45CA-D)		

WIRING AND OUTLINE DIMENSIONS:

CAL45CA



CAL45CAD

