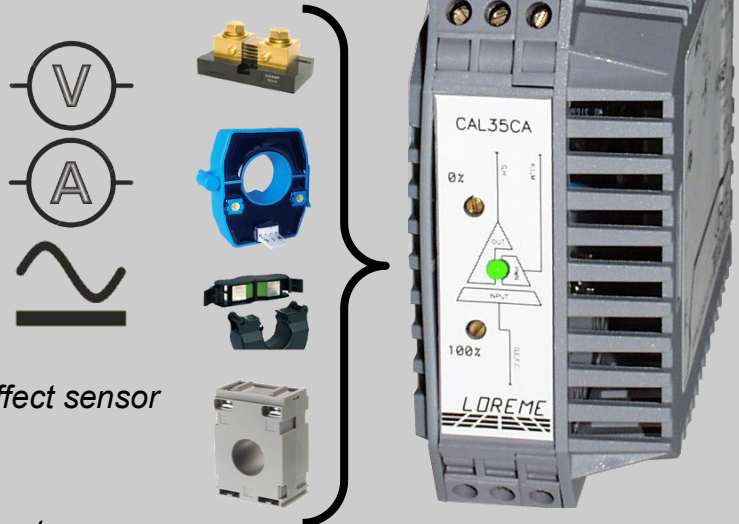


Transmitter for current and voltage measurement RMS (AC) or TRMS (AC+DC)

- **CAL35CA**
measure converter for alternative sinusoidal signals 50Hz, 60Hz and 400Hz (voltage or current)
- **CAL35CA/A**
Self-powered version (powered by measured signal)
- **CAL35RMS** True rms version (AC)
DC component suppressed
all type of signals up to 500kHz
PWM, Phase angle variation,
Wave train,
- **CAL35TRMS**
TRMS measure (AC + DC)
all type of signals up to 500kHz
- **CAL35TRMS-HALL**
TRMS measure (AC + DC) with Hall effect sensor
sensor power supply embedded
- **CAL35CA-Rogo**
converter with Rogowski coil sensor input



The CAL35CA series of converters transform alternative voltage or current signals in 0...4...20mA or 0...10V output signals proportional to input measurement.

DESCRIPTION:

Measures:

Alternative voltage from 100 mV to 600V.
Alternative current from 100uA to 5A on screw terminals
The RMS and TRMS versions are available on 2 models : 0 ... 50kHz and 0 ... 500kHz

Alternative currents from 5A to 150A on split-core current transformer type: Tio
(frequency range: 45 to 500 Hz).

Outputs:

- Current 0...4...20 mA.
- Voltage 0...10 V.
- Other outputs on request (0 ... 5V, ...).

Feature:

- DIN rail mounting (IP20 enclosure).
- Connecting on screw terminal blocks 2,5 mm².
- 3-way galvanic isolation (input/output/power supply).
- Standard linear or wide range switching mode power supply.
- Customised measure scale at the end of fabrication.
- Start and end scale adjustment possible by multi-turn potentiometers.
- Over-voltage or over-current protection.

Associated current sensors

[shunt](#) [current transformer](#) [Hall effect sensor](#) [Rogowski](#)



Version and order code :

[Request a quote](#)

- CAL35CA :**
 - Standard version, with linear power supply
 - Suitable for sinusoidal alternating signals measurement (50Hz, 60Hz, or 400Hz)
- CAL35CA-A:**
 - Powered by measure signal
 - output type 0...10...20 mA, max load of 550 Ohms or 0...10 V,.... (50Hz, 60Hz)
- CAL35RMS:**
 - True rms measure (AC) with DC component suppression for all not sinusoidal applications or needing a wide bandwidth
 - 0.25Hz ... 50kHz or 0.25Hz ... 500kHz
- CAL35TRMS:**
 - True rms measure (AC+DC) for all not sinusoidal applications or needing a wide bandwidth
 - 0.25Hz ... 50kHz or 0.25Hz ... 500kHz
- CAL35TRMS-HALL:**
 - True rms measure (AC+DC) for all not sinusoidal applications or needing a bandwidth up to 20kHz. (dependant of Hall effect sensor)
- CAL35CA-Rogo:**
 - model for Rogowski coil sensor input alternating signal measurement (50Hz, 60Hz, 400Hz)

INPUT	
Voltage range	0...100 mV to 0...500 V
Impedance	from 100 kOhms to 10 MOhms
continuous overload	2 VN
Power consumption	< 0.25 W
Current range	0...100uA to 0...5A
Impedance	0.05 ohms @ 5A
continuous overload	1.5 In
Peak overload	6 In during 3s
Power consumption	< 0.25 W @ 1A; < 1.25W @ 5A
Frequency range	15 - 500 Hz (CAL35CA) 0.25 Hz to 500 kHz (CAL35RMS) DC to 500 kHz (CAL35TRMS)
Integration time	5 ms to 60 s (CAL35RMS & TRMS) dependant of application
OUTPUT	
Current	0... (4) ... 20 mA
Max. load	800 Ohms
Voltage	0 - 10 V
Impedance	500 Ohms
Accuracy	+/- 0.5 %
Response time	< 10 ms + input integration time
Residual ripple (noise)	< 30 mV

POWER SUPPLY	
(to be defined at the order)	
230 Vac 50-60 Hz +/- 10 %, 2.3 VA	
115 Vac 50-60 Hz +/- 10 %, 2.3 VA	
20 to 70 Vac / Vdc, 2.3 VA	
80 to 265 Vac / Vdc, 2.3 VA	
9 to 30 Vdc, 2 W	
Reverse polarity protected	
ENVIRONMENT	
Operating temperature	-20 to 60 °C
Storage temperature	-25 to +85 °C
drift (% of full scale)	0.05 % / °C
Humidity	85 % not condensed
Weight	200 g
Vibrations strength	2 g p.p. at 100 Hz
Protection rating	IP20
Recommended mounting direction	Vertical
Dielectric strength	1500 Vac continuous
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 55011 group 1 class A
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	



WIRING AND OUTLINE DIMENSIONS:

