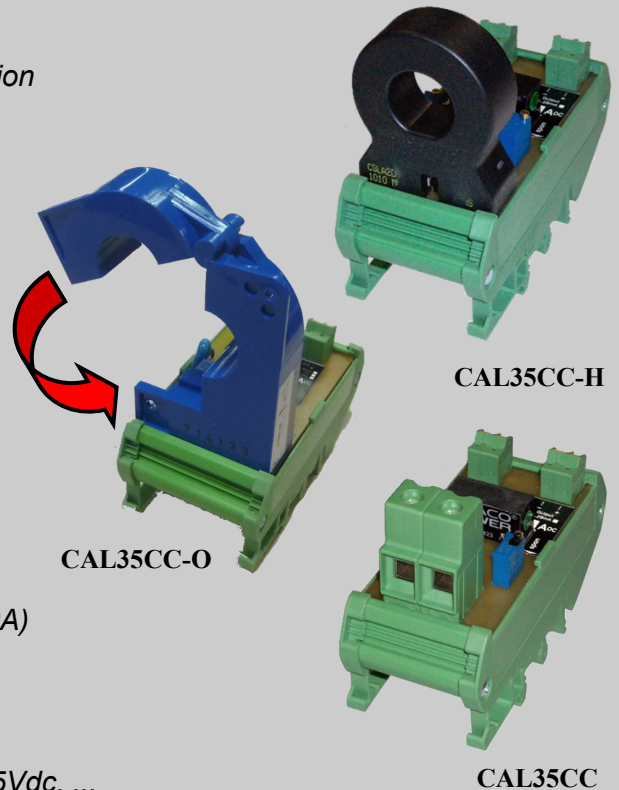


DC Current Transducer , Dc Current Sensor CAL35CC, CAL35CC-H, CAL35CC-O



- **DC Current input:**
from 1A to 1000 Adc (or +/- 1A to +/- 1000A)
Up to 50kHz bandwidth, optional TRMS measurement version
- **Hall effect Technology :**
through-hole design or terminal blocks design for input
- **Current or Voltage Output**
Unipolar or bipolar: 0 .. 4 .. 20mA, +/-20mA, +/-10V, ...
isolated from power supply
- **Direct shunt replacement**
isolated mV output (no heat dissipation)
- **CAL35CC**
screw terminals input 25mm² (5A....100A max)
- **CAL35CC-H closed through-hole input design**
max diameter (max current): 10 mm (100A), 15mm (300A),
26 mm (1000A), 32 mm (1000A)
- **CAL35CC-O split core sensor input design**
hole diameter 21 mm, current measure up to 1000A
- **Power supply:** 4.5...18Vdc, 18...36Vdc, 9...36Vdc, 18...75Vdc, ...



The CAL35CC transducer sensor allows direct current measurement up to 1000 A, replacing favorably shunts, reducing insertion losses and providing a formatted output signal (4..20mA, 0...10 V or mV). The split core sensor design is particularly suitable for the retrofit of existing installations and even allows installation without stopping the system.

Application: solar farm, wind power, batteries

- Defective solar panels detection
- Panels output power measurement
- Panels orientation regulation
- Battery Monitoring, motors DC current monitoring
- Welding

Description:

- Inputs:

Direct Current: unipolar or bipolar (all input range on demand)
Minimum range: 5 Adc (+/- 5Adc)
Maximum range: 1000 Adc (+/- 1000Adc)

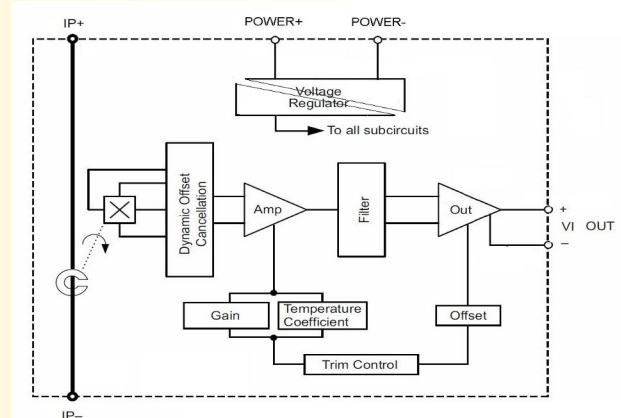
- Output signal:

Unipolar or bipolar (mirror of the instantaneous input value except for the TRMS version: output of effective value)
- Output voltage, all range up to 10V max (+/-10V)
(possibility of mV output for direct shunt substitution with isolation)
- Current output: 0 ... 4 20mA (+/- 20mA)

Feature:

- Plastic profile for symmetrical DIN rail mounting.
Protection rating IP20
- Connection:
 - * Power supply and output on spring terminal
(1 mm² Max for wire section)
 - * Current circuit measurement:
Diameter depending on probe input range (CAL35CC-H)
21 mm maxi for through hole diameter (CAL35CC-O)
25 mm² maxi for screw terminals (CAL35CC)
- Green LED for indication of supply voltage.
- Trimmer for offset and span re-adjustment.
- Power supply protected against reverse polarity.
- Conformal coating.

Synoptic



Version and order code:

[Request a quote](#)

- CAL35CC** current input on terminal block 25mm² (100A max)
- CAL35CC-H-dxx** through-hole current input up to 1000A
xx : hole diameter (10,15,26,32) in mm
- CAL35CC-O** current input on split core sensor with
21 mm hole diameter, (range 20 A mini)
- CAL35CC-TRMS** TRMS measurement version

option /D : remote current sensor (RJ45 cable) 1 meter length maxi

Standard power supply : 18Vdc 36Vdc (default supply range)
Low voltage : 4.5Vdc.....18Vdc Ref. option: **-LWi**
extended standard : 9Vdc.....36Vdc Ref. option: **-Wi**
High voltage : 18Vdc.....75Vdc Ref. option: **-HWi**
other supply voltage on request (230Vac,...)

INPUT

Version with terminal block : CAL35cc

Current +/- 5Adc... +/- 100Adc
 Input impedance ~ 200 uOhms
 Accuracy +/- 0.7 % of full scale
 Standard response time < 50 ms
 In option, bandwidth up to 5KHz (-3 dB, 50Khz for mV)
 Typical response time at 90% 0.4 / cutoff frequency
 Admissible overcurrent (maxi.) 6 x I_N for 5 seconds

Through-hole version

Current: **CAL35cc-H** +/- 5Adc... +/- 1000 Adc
 Current: **CAL35cc-O** (split-core) +/- 20Adc... +/- 1000 Adc
 Input impedance not applicable
 Accuracy: **CAL35cc-H** +/- 0.8% of full scale
 Accuracy: **CAL35cc-O** (split-core) +/- 1.5% of full scale
 Standard response time < 50 ms
 Optionally, bandwidth up to 5KHz (-3 dB, 50Khz for mV)
 Typical response time at 90% 0.4 / cutoff frequency
 Admissible overcurrent (maxi.) 10 kA continuous

OUTPUT

TYPE SCALE
 Current 0 ... 4 ... 20 mA or +/- 20mA, ...
 Load 0500 Ohms
 Voltage (volts) 0 ..1...5....10 V or +/- 10V, ...
 output impedance 500 Ohms for 10V
 Voltage (mV) 0...50...100...500 mV
 output impedance 1 Kohms
 (Other output range on request)

POWER SUPPLY

standard: 18 to 36 Vdc Consumption: <1.5 VA
 (All possible nominal voltage from 5Vdc to 300 Vdc or Vac)
 reverse polarity protected.

ENVIRONMENT

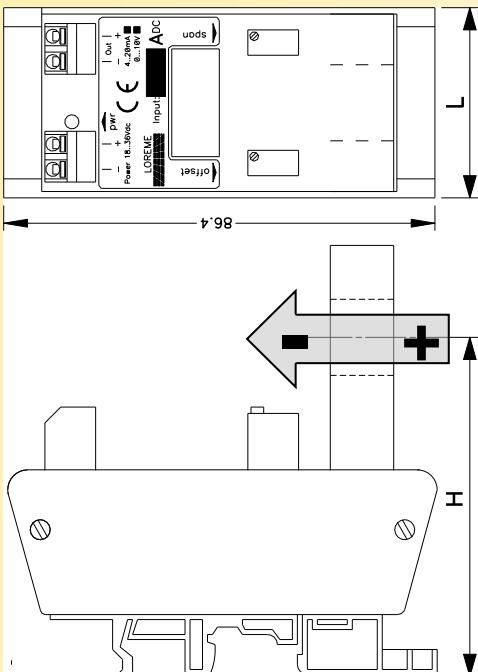
Operating temperature: - 25 °C+ 65 °C
 Storage temperature: - 40 °C+85 °C
 drift: ~ 0.015% / ° C
 Humidity 85% non condensed
 Weight ~ 150 gr.
 Protection rating IP20
 Dielectric Strength:
 (Input / Power supply / Output) 2000 Vrms continuous
 (3500 Vrms / 1 min)
 (Power supply / Output) 500 Vrms continuous (24Vdc)
 (3500 Vrms / 1 min) (230Vac)
 MTBF (MIL HDBK 217F) > 1 200 000 Hrs @ 25°C
 MTBF (MIL HDBK 217F) > 1 000 000 Hrs @ 40°C
 Life time > 200 000 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 clips | |
| EN 61000-4-5 CWG | EN 61000-4-12 ring wave | |
| EN 61000-4-6 RF | EN 61000-4-29 DC clips | |

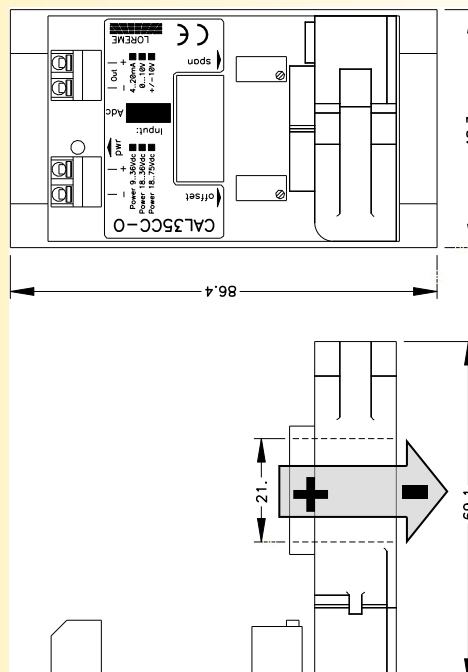


WIRING AND OUTLINE DIMENSIONS:

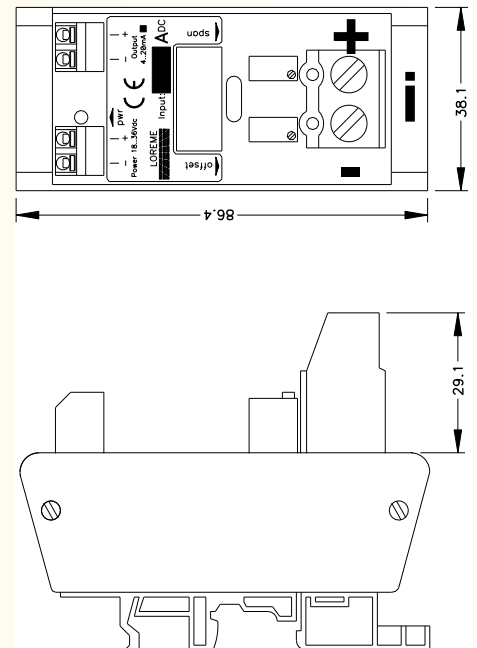


CAL35CC-H
(through-hole sensor)

Diameter: 10mm H= 60mm L=38mm
 Diameter: 15mm H= 63mm L=38mm
 Diameter: 26mm H= 69mm L=68mm
 Diameter: 32mm H= 75mm L=95mm



CAL35CC-O
(split-core sensor)
Diameter : 21mm



CAL35CC
(Screw terminal block)
25mm² max