

- **All process and temperature inputs**
 (Volt, mV, mA, power supply sensor, potentiometer, frequency)
 (Thermocouple, PT100, ...)
- **CAL30IG:** 24/48 Vdc power supply (to be specified)
- **CAL35IG:** 115/230 Vac power supply (to be specified)
- **Bipolar output possible:** +/-20mA, +/-10V
- **Triple galvanic insulation**
- **Fast version** response time < 100uS (to specify)
 Band- pass up to 20 KHz



CAL35IG



CAL30IG

The CAL30IG and CAL35IG measure converters allow to transform, to adapt and to insulate a lot of different of analog signals.

- Inputs:

- Non-linearized thermocouples with internal compensation,
- Linearized platinum probes, Pt100, Pt1000..., 2, 3, 4 wires,
- Symmetrical voltage, mV, V, alternative and direct,
- Symmetrical current, mA, A, alternative and direct,
- 2, 3 or 4 wires resistance,
- Potentiometer, 0.2 V, 1 V, 10 V potentiometer reference,
- 4 wires strain gauge, switchable sensitivity, 5 V power supply,
- Sensor power supply ,4/20 mA transmitter in loop powered,
- NTC, PTC, ... input

- Special inputs:

- Sum of 2 non-insulated inputs, mA, V, Tc, Pt100 2 wires,
- Difference of 2 non-insulated inputs, mA, V, Tc, Pt100 2 wires,
- Mean of 2 non-insulated inputs, mA, V, Tc, Pt100 2 wires,
- Selection of a maximum or minimum value on 2 inputs, mV, V, mA,
- Frequency divider...

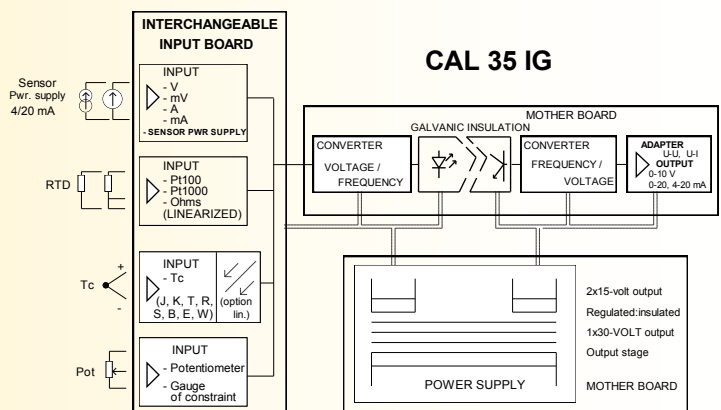
- Outputs:

- Voltage, unipolar or symmetrical output,
- Current, unipolar or symmetrical output,
- Frequency output,
- mV and thermocouple output,
- High sensor breaking security (low version in order)

General characteristics:


- Symmetrical and asymmetrical DIN rail mounting,
- Green LED indicating the presence of power supply voltage,
- Adjustments of start and end of scale with potentiometers,
- Customized scales,
- Interchangeable measurement board according on the type of sensor used,
- Connection with screw-terminals (section of the wires up to 4 mm²).

Synoptic:



| INPUT | |
|---|--|
| TYPE | RANGE |
| Voltage mV, V, ac, dc Impedance | +/- 5 mV min / +/- 1000 V max. > 1 MOhms |
| Current mA, A, ac, dc Impedance | +/- 500 µA min. / +/- 5 A max. 50 Ohms (mA), 0.25 Ohms (1 A), 0.05 Ohms (5 A) |
| Thermocouple - B, E, J, K, R, S, T... type - Cold junction compensation - Zone of compensation | ~ 100°C min./max.limit of couple (acc. to the couple type) -10 / 60 °C |
| RIDPROBE - Pt 100, Pt 1000... type - 2-, 3- or 4-wires input - Linearization | 30 °C min. / 800 °C max. Accuracy max. of 0.2 °C |
| Accuracy | +/- 0.25 % of the full scale |
| Response time | < 200 ms |
| optional pass-band | 600 Hz...20 kHz (at -3 dB) |
| OUTPUT | |
| Current max. load | -20 ... 0 ... 4 ... 20 mA 700 Ohms |
| Voltage min. load | -10 ... 0 ... 10 V 1000 Ohms |
| Frequency min. load | 0 ... 10 Hz ... 50 kHz 1000 Ohms |
| Amplitude on request | +/- 10 V max. |
| Other outputs on request | |

| AUXILIARY | |
|----------------------------------|---|
| Sensor power supply | 19 V (smoothed) |
| for power supply voltage rating | |
| Stain gauge power supply | 5 V (regulated) |
| Potentiometer reference | 200 mV, 1 V, 10 V |
| (according on the potentiometer) | |
| POWER SUPPLY | |
| (to specify at the order) | |
| CAL35IG: | |
| 230 Vac 50-60 Hz +/-10 % | 2 VA |
| 115 Vac 50-60 Hz +/-10 % | 2,3 VA |
| CAL30IG: | |
| 10 to 30 Vac-dc | 2 VA |
| 20 to 70 Vac-dc | 2 VA |
| 80 to 265 Vac-dc | 2 VA |
| RECOMMENDED OPERATING CONDITIONS | |
| Temperature | |
| Operating | -10 °C at 60 °C |
| Storage | -20 °C at +85 °C |
| Influence | ~ 0.01 % / °C |
| Relative humidity | 85 % not condensed |
| Weight | CAL30IG: 92 g CAL35IG: 210 g |
| Protection | IP20 |
| Dielectric strength | 1500 Vac continuous (Inputs/Power Supply./Outputs) |

| Electromagnetic compatibility | | | | |
|--|--------------|-------------------|----------|----------------|
| Generic standards: NFEN50081-2 / NFEN50082-2 | | | | |
|  | | | | |
| EN55011 | meet | group 1 / class A | | |
| EN61000-4-2 | no influence | B | ENV50140 | < +/- 5 % A |
| EN61000-4-4 | < +/- 5 % | B | ENV50141 | < +/- 10 % A |
| EN61000-4-5 | < +/- 5 % | B | ENV50204 | no influence A |
| EN61000-4-8 | no influence | A | | |
| EN61000-4-11 | < +/- 5 % | B | DBT | 73/23/CEE |

WIRING AND OUTLINE DIMENSIONS:

