

- **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...

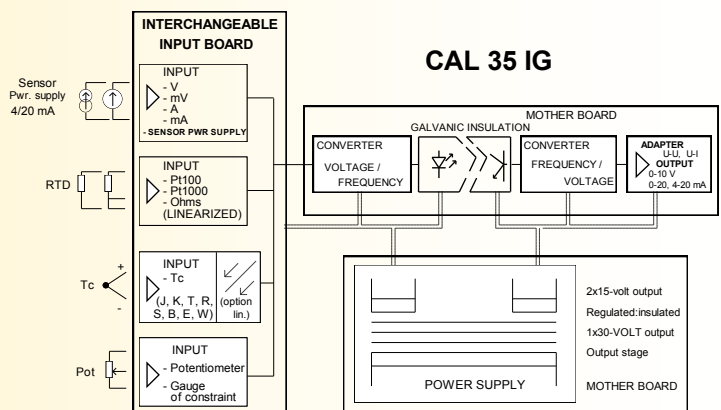
**- Outputs:**

- 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 mm<sup>2</sup>).

**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)	
<b>CAL35IG:</b>	
230 Vac 50-60 Hz +/-10 %	2 VA
115 Vac 50-60 Hz +/-10 %	2,3 VA
<b>CAL30IG:</b>	
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:**

