

MICRO-CALCULATOR FOR ANALOG SIGNALS

μCAL



- 3 inputs insulated from one another (250 V), programmable as current or voltage input: 0-20 mA, ± 20 mA, 0-10 V, ± 10 V
- Calculation on 1, 2 or 3 inputs: +, -, x, /, >, <, sin, cos, ...
- Function integration on the calculation
- Special linearisation in 20 pts on each channel
- Supply for 19 V 60 mA sensor
- Insulated analog output, current or voltage (specify)
- 2 relay outputs (1NO 5A / 250 Vac)
- Universal power supply: 20 to 270 Vac and 20 to 300 Vdc
- Response time: 150 to 350 ms

Sensor rupture detection.

Insulation between input / outputs / supply.

Self-diagnosis

Mode gene: the analog output is piloted locally by the micro-console.

Function simulation of the display

Easy programming on front face with the LCD μconsole, or by the PC software SuperVision.

Programming with the LCD μconsole

This miniaturised micro-console for clipping on the front face of the instruments:

- the visualisation of the 3 measure channels, the calculation or the totaller and the status of the analog and relay outputs,
- the visualisation and the modification of the programming,
- the teleloading of programming files for duplication to other calculators.

Programming by PC: software SuperVision

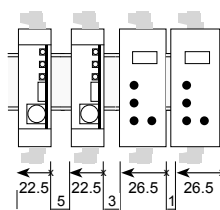
Programming software (Windows environment) allowing:

- the storage of configurations as files which can be consulted, modified, duplicated or loaded into the calculators,
- the edition and printing of files with or without a calculator connected.

♦ **CE** according to IEC 61000-6-4, IEC 61000-6-2 (industrial environment).

♦ Disturbance immunity according to the standard IEC 61000-6-2 (IEC 61000-4-3 level 3, IEC 61000-4-4 level 4, IEC 61000-4-6 level 3)

- Protection: Case / terminals = IP20
- Plug-off connectors for screwed connections (2.5 mm², flexible or rigid)
- Weight: 240 g (with packaging)
- Self-extinguishing case of black UL 94VO ABS.
- Mounting in switchbox: latching on symmetrical DIN rail.

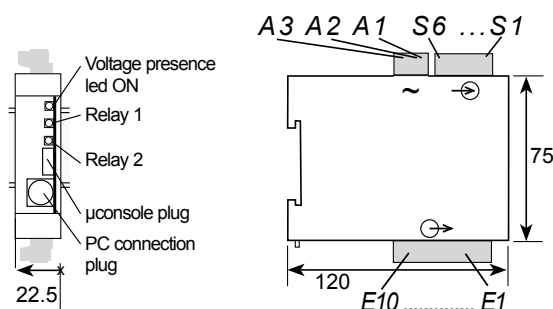


Dimensions: 22.5x75x120 mm
with μconsole: 26.5x80x130 mm

To allow the inserting of the μconsole: mount the instruments vertically (on horizontal DIN rail), leaving a 5mm space between each.

Operating T°: -10 to 50 °C
Storage T°: -20 to 70 °C

Dimensions



Features

Inputs

Types of INPUTS	Measure range adjustable from:	Permanent overload	Intrinsic error	Console resolution	Input impedance
mA 	±22 mA or -2 to +22 mA	±100 mA	<	10 μA	100 Ω
V 	±11 V or -1 to +11 V	± 50 V	± 0.05% of the MR	1 mV	500 KΩ
Supply for 2- wire sensor	19 V ±15% 60 mA*				
Special linearisation programming up to 20 points	on the 3 inputs				

MR measure range

* The distribution of the sensor supply to 2 or 3 inputs suppresses the insulation between these 2 or 3 inputs.

- Scale factor, cut off, filter, unit independently programmable on each input.
- Programmable sampling time: 20 ms or 100 ms, for each channel.
- Calculation possible from 1, 2 or 3 variables using constants mathematical functions and intermediate calculations.
- 10 constants or coefficients programmable from ± 0.001 to ± 9999 + constant π .
- Functions: $\sqrt{}$, Sin, Cos, Tgt, Ctg, decimal logarithm., napierian logarithm, exponential, absolute value, reverse.
- 6 operators: summ, subtraction, multiplication, division, upper, lower.
- 5 intermediate registers + 1 final register.
- Function integration on the calculation with programmable time basis and saving of the totaller.
- Thermic drift $< 150 \text{ ppm}/^{\circ}\text{C}$.

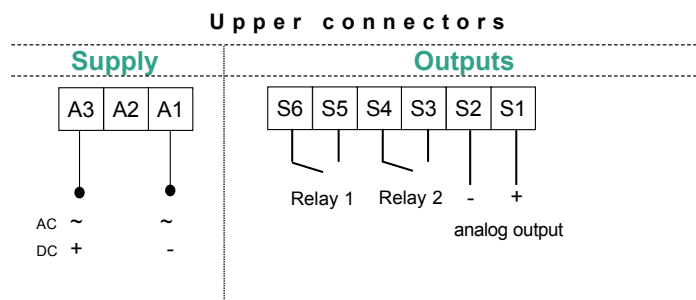
Outputs

Code	Types of OUTPUTS	Features
A	1 analog Current Voltage	Programmable on 1 input, on the calculation or the totaller Current: direct or reversed 0-20 mA Load impedance $\leq$ Lr 600 Ω Voltage: direct or reversed 0-10 V Load impedance $\geq$ Lr 500 kΩ
R	2 relays (1NO) alarm or pulses	2 setpoint per relay,configurable on 1 input, on the calculation or the totaller. Hysteresis programmable from 0 to 100%. Time delay programmable from 0 to 25 sec. (5A/250 VAC on resistive load)
		Use as pulse output or in mode totaller

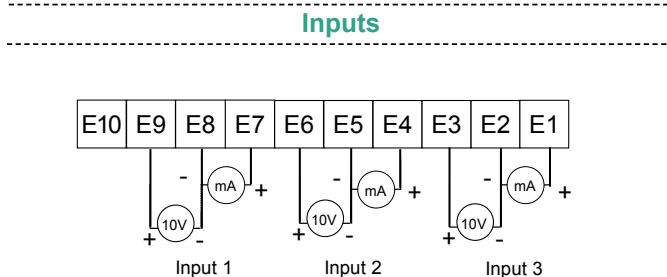
Galvanic partition:

2 kV - 50 Hz - 1 min. between supply, input, analog output, relay outputs

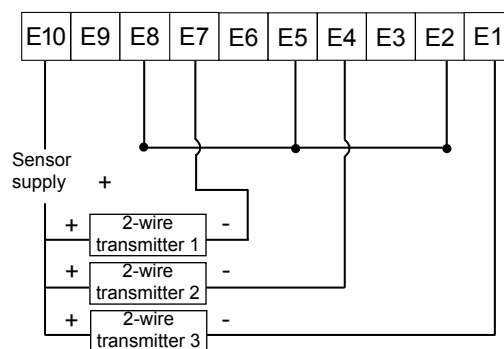
Wiring



Lower connector

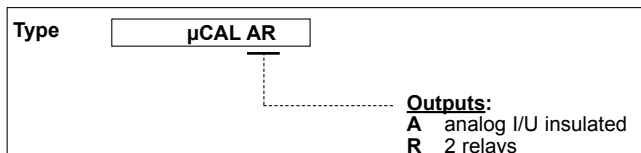


Inputs 2-wire transmitters



* The distribution of the sensor supply to 2 or 3 inputs suppresses the insulation between these 2 or 3 inputs.

Coding



Power supply:

20 to 270 VAC 50/60/400 Hz and 20 to 300 Vdc

Power draw : 3.5 W max. 6.5 VA max.
Dielectric withstanding: 2 kV - 50 Hz - 1 min.

your representative



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