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 5 A / 250 Vac)
- Universal power supply: 20 to 270 Vac and 20 to 300 Vdc
- Response time from 150 to 350 ms

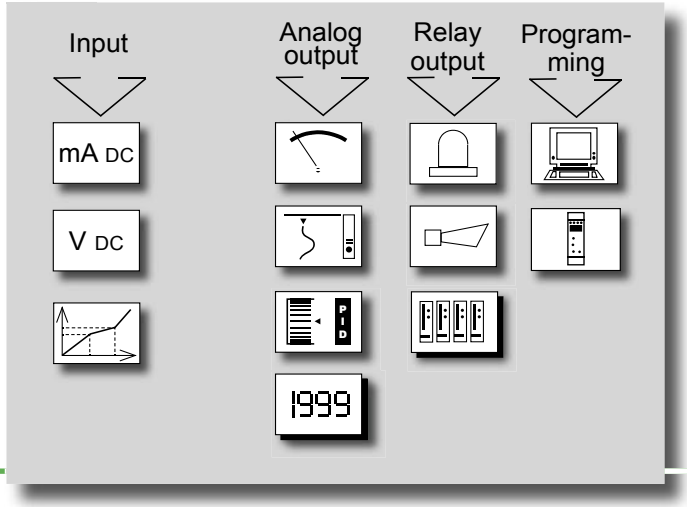
Sensor rupture detection.

Insulation between input / outputs / supply.

Self-diagnosis

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

Function simulation of the display



CONVERTERS

Easy programming on front face with the LCD micro-console or with the PC software MCVision.

Programming with the LCD micro-console

This miniaturised micro-console connnected on the front face of the instruments allows:

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

Programming by PC: MCVision

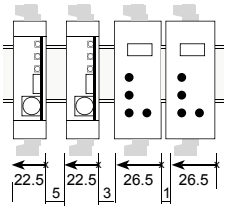
Software for programming (Windows environment) allowing:

- the storage of configurations as files which can be consulted, modifed, 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 connectings (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.

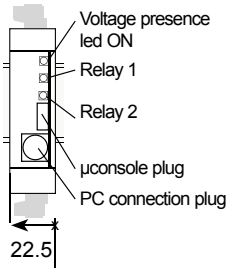


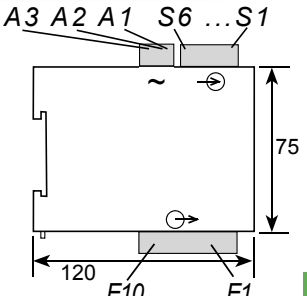
Dimensions : 22,5x75x120 mm
with µconsole : 26.5x80x130 mm

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





CA
CO/98

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	< ±0.05% of the MR	10 µA	100 Ω
V♣	±11 V or -1 to +11 V	± 50 V		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 programable on each input.
- Sampling time programmable: 20 ms or 100 ms per 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 : √, Sin, Cos, Tgt, Ctg, decimal Logarithm, napierian Logarithm, exponential, absolute value, reciprocal value.
- 6 operators: summ, substraction, multiplication, division, greater, smaller.
- 5 intermediate registers + 1 final register.
- Function integration on the calculation with programmable time basis and saving of the totaller.
- Thermic drift < 150 ppm/°C.

Outputs

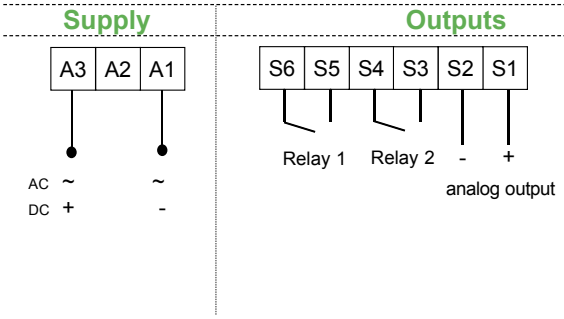
Code	Types of **OUTPUTS**		Features
A	1 analog	Current	Programmable on 1 input, on the calculation or the totaller Current: direct or reversed 0-20 mA Load impedance ≤ Lr 600 Ω
		Voltage	Voltage: direct or reversed 0-10 V Load impedance ≥ Lr 500 kΩ
R	2 relays (1NO) alarm or pulses		2 setpoints per relay, 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)
			For use as pulse output in mode totaller

Galvanic partition:

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

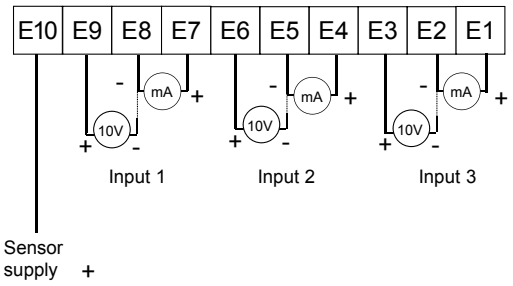
Wiring

Upper connectors



Lower connector

Inputs



Coding

Type **µCAL AR**

Outputs:
A analog I/U insulated
R 2 invertig relays

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.

SFERE . Société Française d'Etudes et de Réalisations Electroniques
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