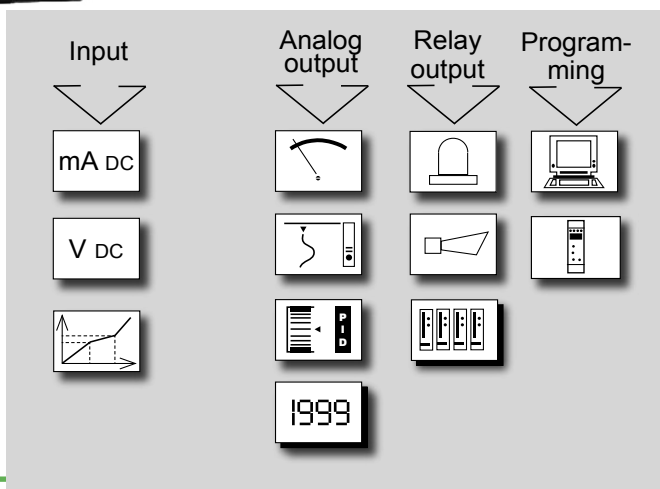


MICRO-CALCULATOR FOR ANALOG SIGNALS

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

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 connected 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, modified, duplicated or loaded into the calculators,
- the edition and printing of files with or without a calculator connected..

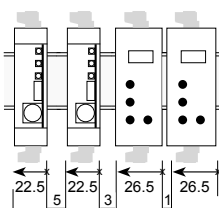
♦ **CE** according to IEC 61000-6-4, IEC 61000-6-2 (industrial environment).

♦ 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)



CONVERTERS

- 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.



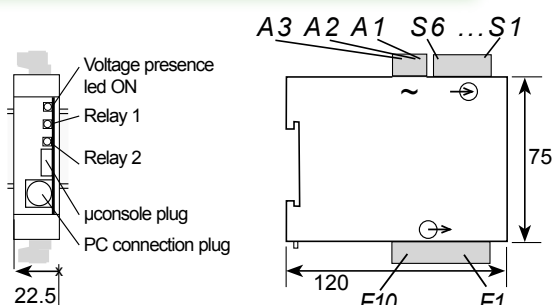
Dimensions : 22,5x75x120 mm
with μconsole : 26.5x80x130 mm

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 μ A	100 Ω
V 	±11 V or -1 to +11 V	± 50 V		1 mV	500 K Ω
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.
- 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 : $\sqrt{\quad}$, Sin, Cos, Tgt, Ctg, decimal Logarithm, napierian Logarithm, exponential, absolute value, reciprocal value.
- 6 operators: summ, subtraction, 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 $< 150 \text{ ppm}/^{\circ}\text{C}$.

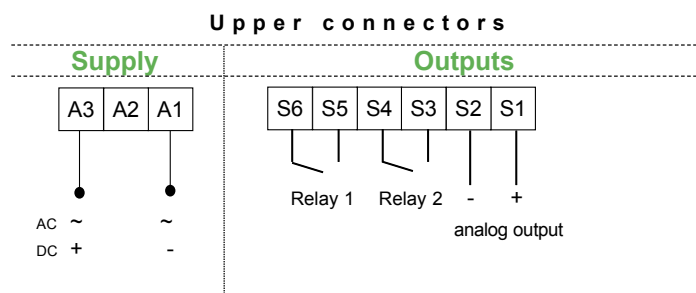
Outputs

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 k Ω
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:

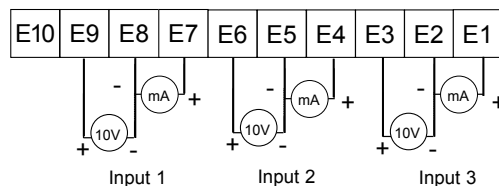
2 kV - 50 Hz - 1 min. between supply, input, analog output, relay outputs

Wiring

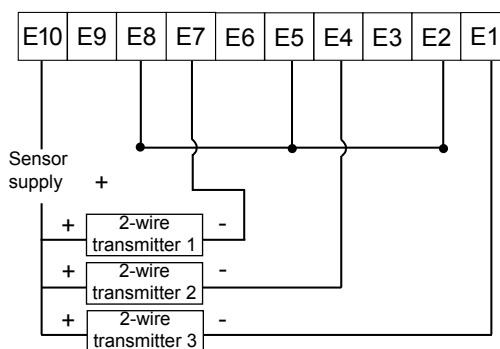


Lower connector

Inputs

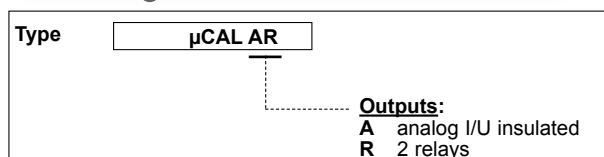


Inputs 2-wire transmitters



* 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.

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RCS Lyon 423-502-608 - Printed in France

Route de Brindas - Parc d'Activité d'Arbora - N°2
69510 SOUCIEU EN JARREST - FRANCE

Tél. : 04 78 16 04 04 Fax. : 04 78 16 04 05
Tel. Intern. : 33 4 78 16 04 04 Fax Intern. : 33 4 78 16 04 05

e-mail : info@sphere-net.com . [http : //www.sphere-net.com](http://www.sphere-net.com)

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Your representative