

CAP-OSI

for DC current or voltage



The CAP-OSI has got an **intrinsic safety output**:

This is an associated equipment, placed in safe area. It has an input for connection to a sensor placed in safe area only and a standardized output which can go to the hazardous area.

This instrument has obtained a **UE** examination certificate of the type according to the prescriptions of the standards EN 60079-0 (2006), EN 60079-11 (2007), EN 60079-26 (2007), EN 61241-0 (2006) and EN 61241-11 (2006) according to the directive ATEX 2014/34/UE: marking Ex II(1)GD, [Exia]IIC and [Ex iaD]

• **Type:**

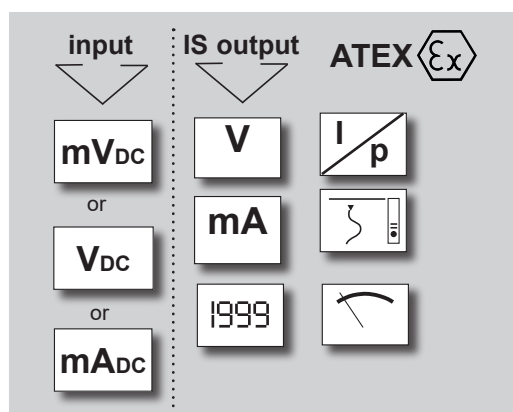
The CAP-OSI is an insulated measure transmitter which accepts in INPUT a DC magnitude (voltage or current) and then converts it into a standardized OUTPUT signal:
0-10VDC or 0/4-20 mADC of INTRINSIC SAFETY

• **Accessibilities:**

- Reduced casing
- Plug-off connectors for screwed connectings
- Internal selection of the input caliber and the type of output by jumper behind the front face.

• **Functions:**

- Galvanic partition:
output / [input, supply]: 3.8 kV
- Broad supply span
- Low response time: 10ms



Applications

- IS barrier for analog signals.
- Command of the positionners.
- Display, regulation, recording, watching of signals.

Environment

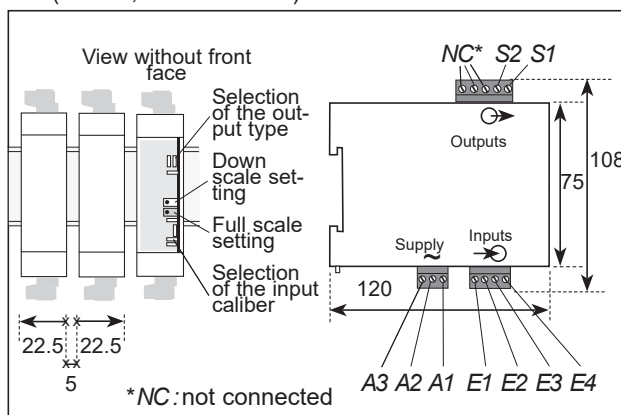
- Operating temperature: -10 to +60°C.
- Storage temperature: -30°C to +80°C.
- CE according to IEC 61000-6-4, IEC 61000-6-2 (in industrial environment).
- Disturbance immunity according to the standard IEC 61000-6-2 (IEC 61000-4-3 level 3, IEC 61000-4-4 level 4, IEC 61000-4-6 level 3)



The friendly interface

Description

- **Housing:** (H x L x D) 75 x 22.5 x 120 mm (H=108, with terminals)



- **Protection:** Case / terminals: IP 20
- **Housing:** Self-extinguishing case of black UL 94VO ABS, for latching on symmetrical DIN rail (mount the instruments vertically and provide a 5 mm space between each). Plug-off connectors for screwed connectings (2.5mm² flexible or rigid).
- **Weight:** 130g (with packaging).



Technical features at 23°C

INPUTS	Voltage	9 voltage calibers from 100mV to 150 Vdc uni or bi-directionnal. input resistance: 100KΩ for V < 1V (terminals E2 / E3) 1MΩ for V ≥ 1V (terminals E2 / E4)		Integrated supply for 2-wire sensor 20V +/-15% I max.: 25 mA Fine settings by multi-turn potentiometers. Possibility to achieve shifted scales.	
	Current	5 current calibers from 5 to 40mA uni or bi-directionnal. input resistance: 20Ω			
OUTPUTS	 INTRINSIC SAFETY				
	Current	0-20mA, 4-20mA, (Lr* < 650Ω)		Voltage	0-10V (Lr* > 2kΩ)
POWER SUPPLY	2 Versions:	High or low voltage (specify on order)		Power draw:	on load < 4 VA (2W) empty < 3 VA (1.3W)
	High voltage	90...265 VAc 50/60/400 Hz & 88 ...350 VDC			
	Low voltage	20...40 VAc 50/60/400 Hz & 20...64 Vdc			
TRANSFER	Accuracy rating	: ≤ 0.2		Response time	: ≤ 250ms [Tr]
	Ripple	: ≤ 0.5%		Pass-band	: 1.5 Hz (-3 decibels) [Bp = 0.35/Tr]
	Galvanic partition	: output / [input, power supply] 3.8kV eff. 50Hz 1min. input / supply 2kV eff. 50Hz 1min.		Temperature coefficient:	≤ 0.015%/°C
OPTIONS	Shifted or inverted scales.		Shorter response time: > 10 ms Longer response time: < 40 s		

*Lr: load resistance

ELECTRICAL PARAMETERS RELATED TO THE INTRINSIC SAFETY

Terminals	Uo (Vdc)	Io (mA dc)	Po (mW)	Lo (mH)	Co (μF)
S1, S2	24.1	105	640	3	0,120
Um < 375 Vdc and Um < 265 Vac					

Coding

CAP-OSI

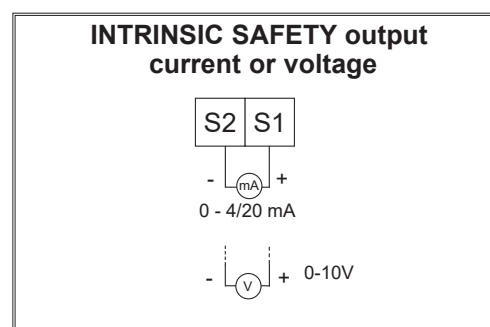
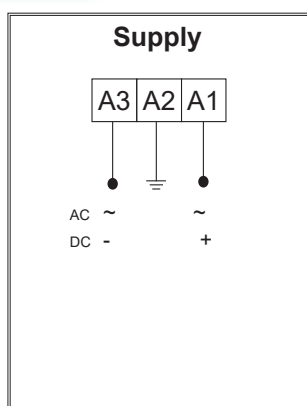
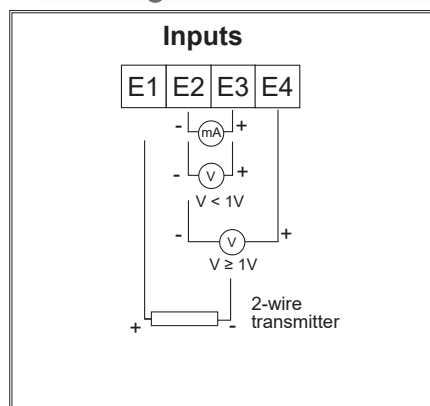
Power supply: High or low voltage (specify)

(2): high voltage : 90...265 VAC or 88...350 VDC
(3): low voltage : 20...40 VAC or 20...64 VDC

Order example:

For a **CAP-OSI** supplied in 230 V / 50Hz,
request reference: **CAP-OSI 2**

Wiring



This appliance is dedicated to industrial applications. It has to be installed in an electrical switchbox, or equivalent.

SFERE . Société Française d'Etudes et de Réalisations Electroniques

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