

PROBE for room temperature and surface temperature INSIDE and OUTSIDE application



- **SPAI - CAL:**

Room temperature measure

- **SPAI - A:**

Room temperature measure
with LCD display

- **SPAE - CAL:**

Waterproof outside
temperature measure (IP 65)

- **SPAE-CNL/H:**

Waterproof outside
temperature measure (IP 65)
with HART transmitter

- **SPC01/CAL:**

Surface probe (piping)

- **Loop powered** (4 - 20 mA)
12 to 35 V power supply

SPAI-CAL



SPAE-CAL



SPAI-A



SPC-CAL



SPAE-CNL/H



These probes allow to measure the ambient temperature in a room and provide a 4-20 mA loop powered output signal. The measure element (Pt 100 platinum RTD probe) used ensures an excellent repeatability of the measures.

The inside versions, with small size and nice design, can be fixed very easily (wall fastening).

The outside versions (waterproof) ensure excellent conditions of reliability in hostile environment.

The contact version is particularly adapted to temperature measure on piping (thanks to its soleplate in aluminium).

FUNCTIONALITIES:

- inside version plastic box (IP20) wall fastening,
- outside version macro-lon box (IP65) wall fastening,
- connecting by screw connector,
- measure element Pt100,
- green led indicating voltage presence, red led sensor default (SPAI-CAL),
- display with a 4 digit LCD on SPAI-A,
- scale adjustment by potentiometers (except version SPAI-A adjustment by PC),
- high safety in case of sensor breaking (24 mA limitation, low safety on request),
- protected for reverse polarity,
- conformal coating.

MEASURE

Standard measure range: 0 to 50 °C
-30 to 70 °C
Response time: approx. 3 min
Accuracy: +/- 0.3 °C
The accuracy depends on compliance with the installation recommendations.

OUTPUT / POWER SUPPLY

Current (2 wires technology) 4 / 20 mA
Power supply 12 to 35 Vdc
Maximum load: 600 Ω to 24 Vdc
Load= (Vpwr.supply-12) / 0.02
Load influence: 0.05 % / 100 Ω
Power supply influence: 0.025 % / V

RECOMMENDED OPERATING CONDITIONS

Operating temperature: -30 to +70 °C
Storage temperature: -40 to +85 °C
Relative humidity: 85 % not condensed
Ambient temperature influence: < 0.01 % / °C (of full scale)
Weight: ~ 75g.
Protection rating: SPAI - CAL: IP20
SPAE - CAL: IP65
SPC - CAL: IP30

Electromagnetic compatibility

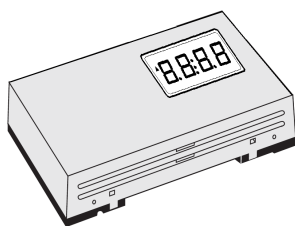
Generic standards: NFEN50081-2 / NFEN50082-2



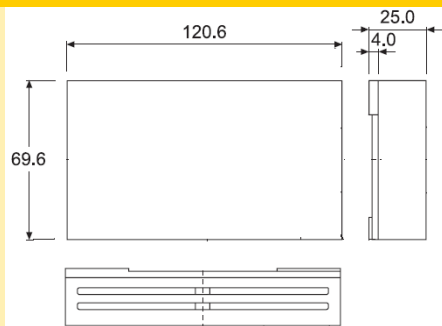
EN55011	meet	group 1 / class A		
EN61000-4-2	no influence	B	ENV50140	< +/- 5 % A
EN61000-4-4	< +/- 5 %	B	ENV50141	< +/- 10 % A
EN61000-4-5	< +/- 5 %	B	ENV50204	no influence A
EN61000-4-8	no influence	A		
EN61000-4-11	< +/- 5 %	B	DBT	73/23/CEE

WIRING AND OUTLINE DIMENSIONS:

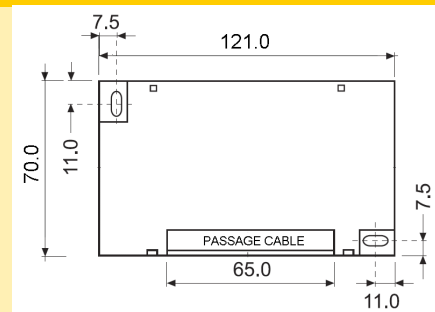
SPAI-A



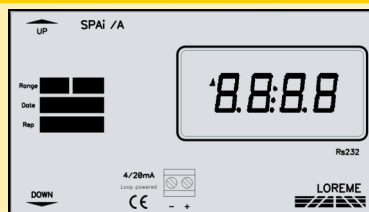
Outline dimensions



Mounting



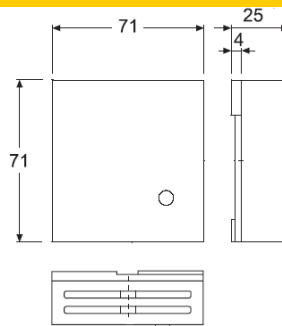
Wiring



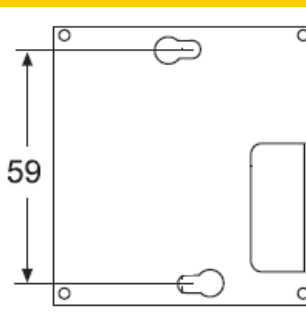
SPAI-CAL



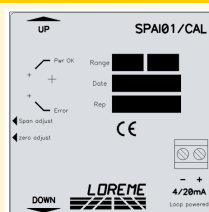
Outline dimensions



Mounting

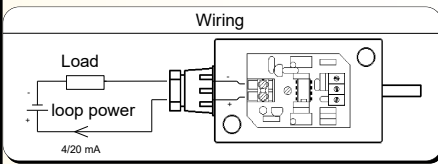
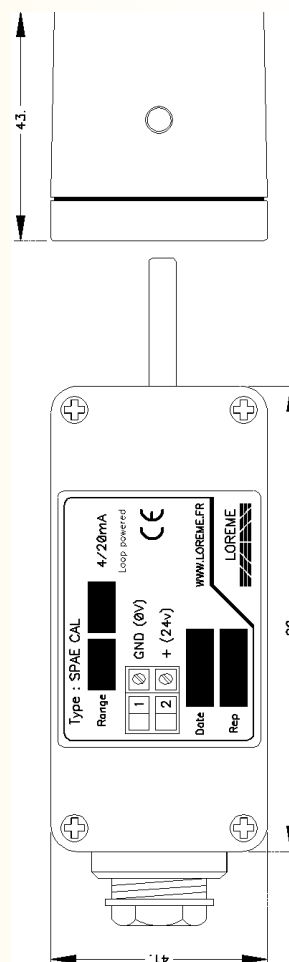


Wiring



SPC-CAL

SPAE-CAL



USING RECOMMENDATIONS:

The no compliance of the mounting orientation degrades the performances of device (SPAI01/CAL)
Avoid to install the box in a airstream or near heating systems. Do not expose to the direct radiance of sun.
In a harsh electromagnetic environment, it is recommended to connect the device with twisted wires.