

Probes and interchangeable boards for class 310 sensors

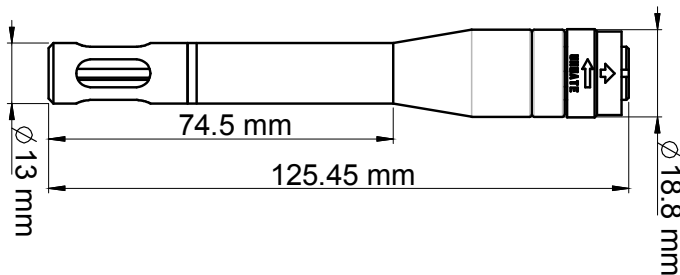


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HYGROMETRY/TEMPERATURE PROBES

> Stainless steel hygrometry/temperature probes

Interchangeable hygrometry and ambient temperature probe in stainless steel with stainless steel filter. Standard mounting probe 120 mm length with a watertight connector of 1/4 turn. In option : protective tips, filters. Supplied with adjustment certificate. Ref : **SHSI**



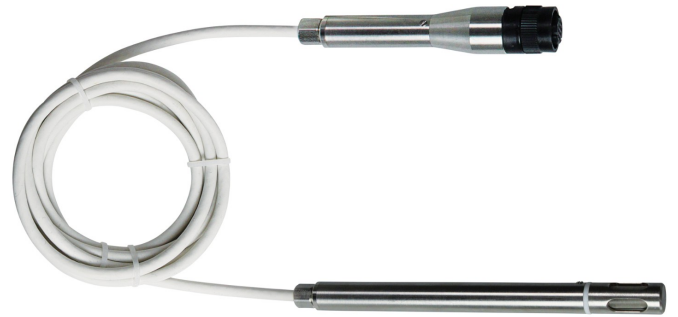
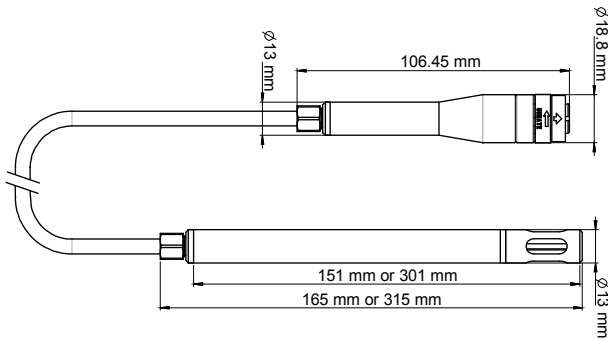
| | |
|--|--|
| Measuring ranges | From 0 to 100%RH and from -20 to 80 °C |
| Accuracy* | Hygrometry : - Accuracy (Repeatability, linearity, hysteresis) : ±1.5%RH (from 15°C to 25°C) - Factory calibration uncertainty : ±0.88 %RH - Temperature dependence : ±0.04 x (T-20) %RH (if T<15°C or T>25°C) Temperature Pt100 : ±0.3% reading ±0.25°C |
| Resolution | 0.1 %RH / 0.1 °C |
| Units of psychrometric measurements | Absolute humidity : 1 g/kg Dew-point temperature : 0.1° CTd / 0.1° FTd Wet temperature : 0.1° CTw / 0.1° FTw Enthalpy : 0.1 kJ/kg |

*All the accuracies indicated in this technical datasheet were stated in laboratory conditions, and can be guaranteed for measurements carried out in the same conditions, or carried out with calibration compensation.

Interchangeable hygrometry and temperature probe in stainless steel with stainless steel filter. Remote probe 150 mm length or 300 mm, 13 mm diameter. White silicone cable 2 m length with watertight connector 1/4 turn. In option : protection socket, filters. Supplied with adjustment certificate.

Ref : SHDI-150 (probe 150 mm length)

SHDI-300 (probe 300 mm length)



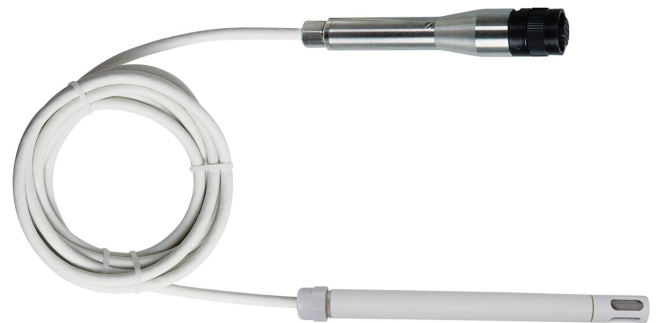
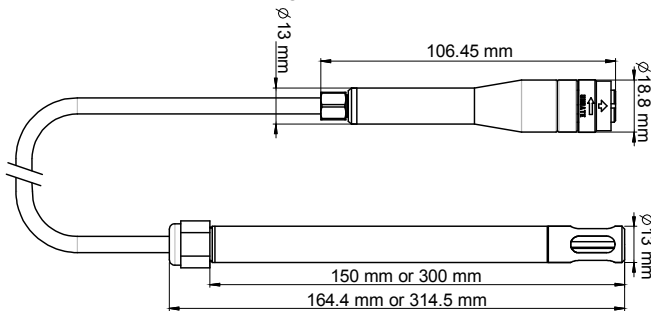
| | |
|--|---|
| Measuring ranges | From 0 to 100%RH and from -40 to +180 °C |
| Accuracy* | Hygrometry : - Accuracy (Repeatability, linearity, hysteresis) : $\pm 1.5\%RH$ (from 15°C to 25°C) - Factory calibration uncertainty : $\pm 0.88\%RH$ - Temperature dependence : $\pm 0.04 \times (T-20)\%RH$ (if $T < 15^\circ C$ or $T > 25^\circ C$) Temperature Pt100 : $\pm 0.3\%$ reading $\pm 0.25^\circ C$ |
| Resolution | 0.1 %RH / 0.1 °C |
| Units of psychrometric measurements | Absolute humidity : 1 g/kg Dew-point temperature : 0.1° CTd / 0.1° FTd Wet temperature : 0.1° CTw / 0.1° FTw Enthalpy : 0.1 kJ/kg |

➤ Hygrometry probe / polycarbonate temperature

Interchangeable hygrometry and temperature probe in polycarbonate with stainless steel filter. Remote probe 150 mm length or 300 mm, 13 mm diameter. White silicone cable 2 m length with watertight connector 1/4 turn. In option : protective tips, filters. Supplied with adjustment certificate.

Ref : SHDP-150 (probe 150 mm length)

SDHP-300 (probe 300 mm length)



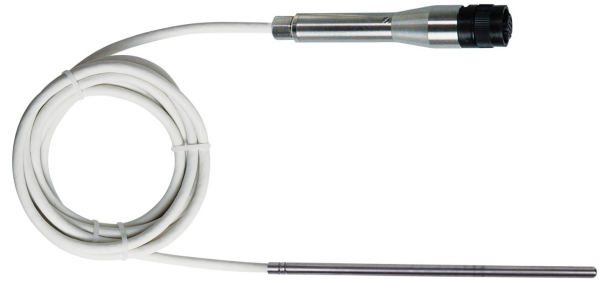
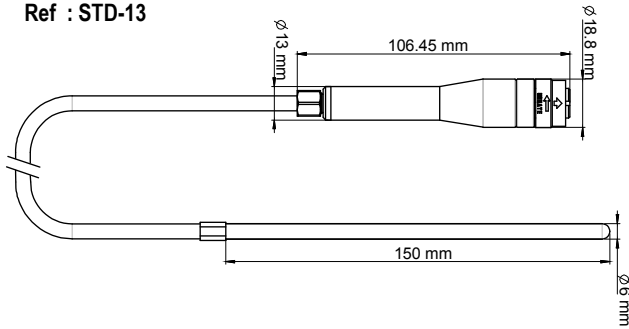
| | |
|--|---|
| Measuring ranges | From 0 to 100%RH and from -20 to +80 °C |
| Accuracy* | Hygrometry : - Accuracy (Repeatability, linearity, hysteresis) : $\pm 1.5\%RH$ (from 15°C to 25°C) - Factory calibration uncertainty : $\pm 0.88\%RH$ - Temperature dependence : $\pm 0.04 \times (T-20)\%RH$ (if $T < 15^\circ C$ or $T > 25^\circ C$) Temperature Pt100 : $\pm 0.3\%$ reading $\pm 0.25^\circ C$ |
| Resolution | 0.1 %RH / 0.1 °C |
| Units of psychrometric measurements | Absolute humidity : 1 g/kg Dew-point temperature : 0.1° CTd / 0.1° FTd Wet temperature : 0.1° CTw / 0.1° FTw Enthalpy : 0.1 kJ/kg |

*All the accuracies indicated in this technical datasheet were stated in laboratory conditions, and can be guaranteed for measurements carried out in the same conditions, or carried out with calibration compensation.

TEMPERATURE PROBES

Interchangeable temperature probe Pt100 1/3 DIN of general use, contact tip 6 mm diameter, 150 mm length, IP65. Grey silicone cable 2 m length with watertight connector 1/4 turn. Supplied with adjustment certificate.

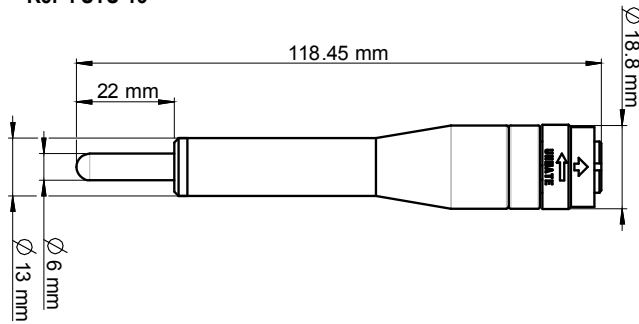
Ref : STD-13



| | |
|-------------------------|-----------------------|
| Measuring ranges | From -50 to +180 °C |
| Accuracy* | ±0.3% reading ±0.25°C |
| Resolution | 0.1 °C |

Interchangeable temperature probe of general use Pt100, 1/3 DIN type STS-13, contact tip 6 mm diameter, 22 mm length. Range from -20 to +80 °C. Direct output on connector for C310 sensors, CPE310 (with adapter) and large display CA310. Supplied with adjustment certificate.

Ref : STS-13

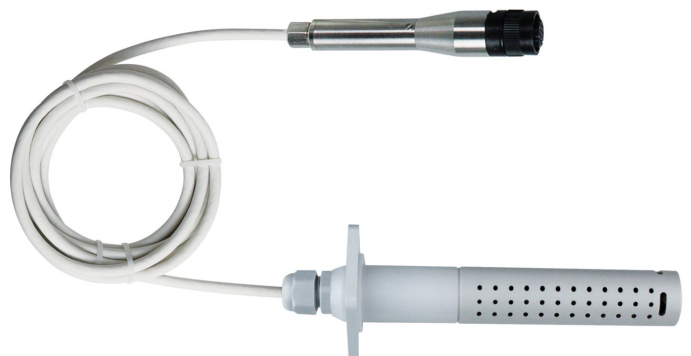
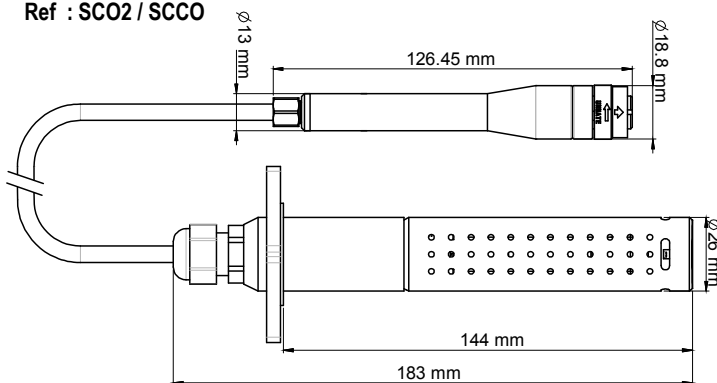


| | |
|-------------------------|-----------------------|
| Measuring ranges | From -20 to +80 °C |
| Accuracy* | ±0.3% reading ±0.25°C |
| Resolution | 0.1 °C |

CO₂ PROBES / TEMPERATURE AND CO/TEMPERATURE

Interchangeable CO₂ and temperature probe or CO and temperature in ABS V0. Remote probe 160 mm length, 26 mm diameter. White PVC cable 2 m length with watertight connector 1/4 turn. Supplied with mounting flange and adjustment certificate.

Ref : SCO2 / SCCO



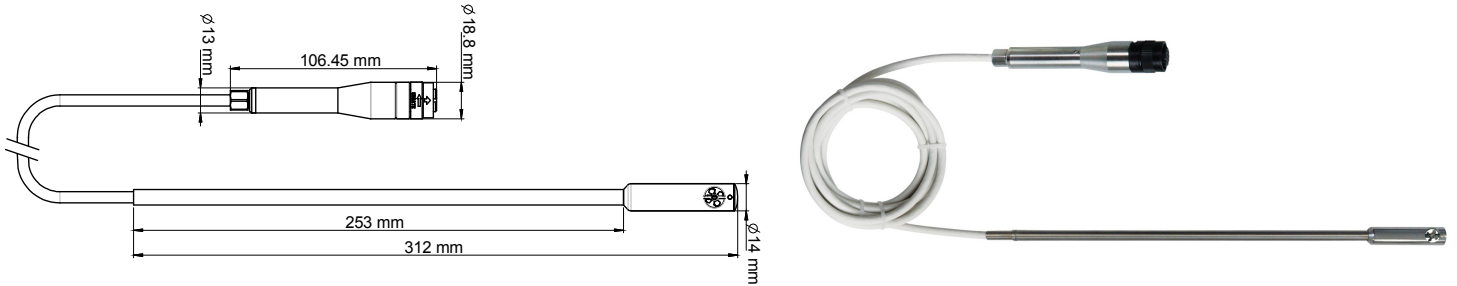
| | CO ₂ Probe – temperature | CO Probe – temperature |
|-------------------------|---|--|
| Measuring ranges | From 0 to 5000 ppm and from 0 to 50 °C (other range available in CO ₂ : from 0 to 20 000 ppm) | From 0 to 500 ppm and from 0 to 50 °C |
| Accuracy* | CO ₂ : from 0 to 5000 ppm : ±3% of the reading ±50ppm from 0 to 20 000 ppm : ±5% of the reading ±100 ppm Temperature CTN : ±0.3 °C | CO : ±3 ppm or 3% of the measured value Temperature CTN : ±0.3 °C |
| Resolution | 0.1 ppm / 0.1 °C | 0.1 ppm / 0.1 °C |

*All the accuracies indicated in this technical datasheet were stated in laboratory conditions, and can be guaranteed for measurements carried out in the same conditions, or carried out with calibration compensation.

AIR VELOCITY AND TEMPERATURE PROBES

➤ SVH-14 : Ø14 mm vane probe

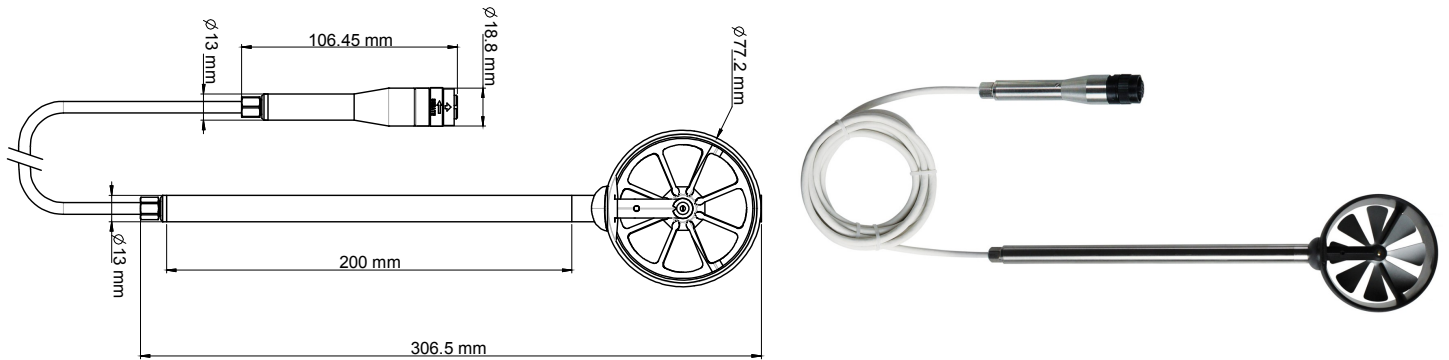
Interchangeable air velocity and temperature remote with Ø 14 mm vane, 300 mm length, white PVC cable 2 m length with watertight connector 1/4 turn.



| | |
|-------------------------|--|
| Measuring ranges | From 0 to 25 m/s / from -20 to +80 °C / from 0 to 99999 m ³ /h |
| Accuracy* | Air velocity : from 0.8 to 3 m/s : ±3% of the reading ±0.1m/s ; from 3.1 to 25 m/s : ±1% of the reading ±0.3m/s Temperature Pt100 : ± 0.4% reading ± 0.3°C / Flow : ± 3% reading or ± 0.03*sheath surface (cm ²) |
| Resolution | 0.1 m/s / 0.1 °C / 0.1 m ³ /h |

➤ SVH-70 : Ø70 mm vane probe

Interchangeable air velocity and temperature remote probe with Ø 70 mm vane, 200 mm length, white PVC cable 2 m length with watertight connector 1/4 turn.

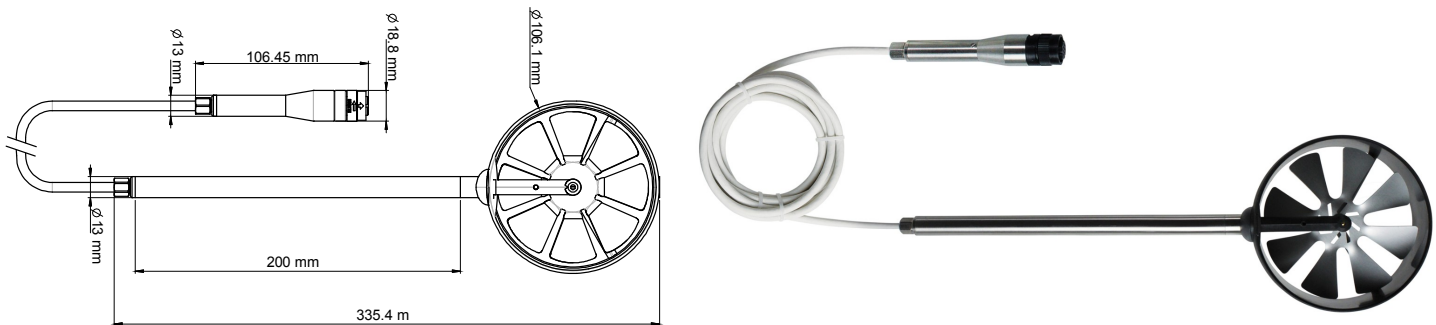


| | |
|-------------------------|--|
| Measuring ranges | From -5 to 35 m/s / from -20 to +80 °C / from 0 to 99999 m ³ /h |
| Accuracy* | Air velocity : from 0.4 to 3 m/s : ±3% of the reading ±0.1m/s ; from 3.1 to 35 m/s : ±1% of the reading ±0.3m/s Temperature Pt100 : ± 0.4% reading ± 0.3°C / Flow : ± 3% reading or ± 0.03*sheath surface (cm ²) |
| Resolution | 0.1 m/s / 0.1 °C / 0.1 m ³ /h |

*All the accuracies indicated in this technical datasheet were stated in laboratory conditions, and can be guaranteed for measurements carried out in the same conditions, or carried out with calibration compensation.

➤ SVH-100 : probe Ø100 mm wind vane

Interchangeable air velocity and temperature remote probe with Ø 100 mm vane, 200 mm length, white PVC cable 2 m length with watertight connector 1/4 turn.

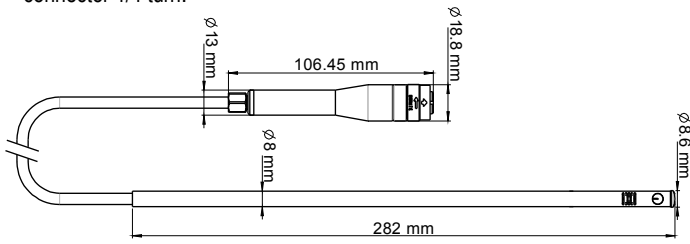


| | |
|-------------------------|--|
| Measuring ranges | From -5 to 35 m/s / from -20 to +80 °C / from 0 to 99999 m ³ /h |
| Accuracy* | Air velocity : from 0.3 to 3 m/s : ±3% of the reading ±0.1m/s ; from 3.1 to 35 m/s : ±1% of the reading ±0.3m/s Temperature Pt100 : ± 0.4% reading ± 0.3°C / Flow : ± 3% reading or ± 0.03*sheath surface (cm ²) |
| Resolution | From -5 to -3 m/s : 0.1 m/s ; from -3 to 3 m/s : 0.01 m/s ; from 3 to 35 m/s : 0.1 m/s 0.1 °C / 0.1 m ³ /h |

*All the accuracies indicated in this technical datasheet were stated in laboratory conditions, and can be guaranteed for measurements carried out in the same conditions, or carried out with calibration compensation.

➤ **SVS : hot-wire probe**

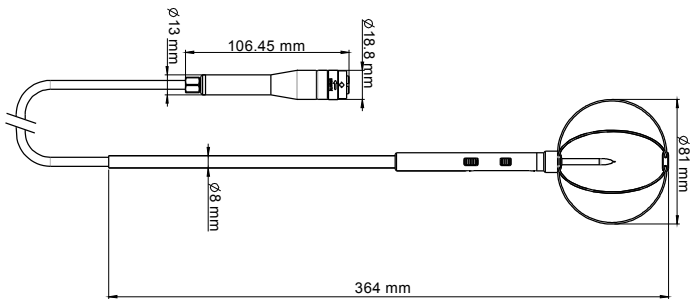
Interchangeable air velocity and temperature remote hot-wire probe in stainless steel 300 mm length, 8 mm diameter, white PVC cable 2 m length with watertight connector 1/4 turn.



| | |
|-------------------------|--|
| Measuring ranges | From 0 to 30 m/s / from -20 to +80 °C / from 0 to 99999 m ³ /h |
| Accuracy* | Air velocity : from 0 to 3 m/s : ±3% of the reading ±0.03 m/s ; from 3.1 to 30 m/s : ±3% of the reading ±0.1 m/s Temperature Pt100 : ± 0.3% reading ± 0.25°C / Flow : ± 3% reading or ± 0.03°sheath surface (cm ²) |
| Resolution | 0.1 m/s / 0.1 °C / 0.1 m ³ /h |

➤ **SVO : omnidirectional probe**

Interchangeable air velocity and temperature remote omnidirectional hot-wire probe in stainless steel 300 mm length, 8mm diameter, white PVC cable 2 m length with watertight connector 1/4 turn. Supplied with carrying case and tripod.



| | |
|-------------------------|--|
| Measuring ranges | From 0 to 5 m/s / from 0 to +50 °C |
| Accuracy* | Air velocity : ± 3% reading ± 0.05 m/s / Temperature Pt100 1/3 DIN : ± 0.3% reading ± 0.25°C |
| Resolution | 0.01 m/s / 0.1 °C |

*All the accuracies indicated in this technical datasheet were stated in laboratory conditions, and can be guaranteed for measurements carried out in the same conditions, or carried out with calibration compensation.

EXTENSIONS FOR PROBES



R310-5 : Extension of **5 m** for interchangeable probes class 310



R310-10 : Extension of **10 m** for interchangeable probes class 310

INTERCHANGEABLE BOARDS

> Pressure boards SPI-2

Interchangeable pressure board with electrovalve and terminal for K thermocouple probe for C310 and CA310 sensors. Supplied with pressure fitting and silicone tubes.

Ref : SPI2-100

SPI2-500

SPI2-1000

SPI2-10000

- Pressure

| | |
|----------------------|--|
| Measuring ranges | SPI2-100 : from -100 to +100 Pa SPI2-500 : from -500 to +500 Pa SPI2-1000 : from -1000 to +1000 Pa SPI2-10000 : from -10000 to +10000 Pa |
| Accuracy* | SPI2-100 : $\pm 0.2\%$ of the reading ± 0.8 Pa SPI2-500 : $\pm 0.2\%$ of the reading ± 2 Pa SPI2-1000 : $\pm 0.2\%$ of the reading ± 2 Pa SPI2-10000 : $\pm 0.2\%$ of the reading ± 10 Pa |
| Admissible removal | SPI2-100 / SPI2-500 / SPI2-1000 : 21 000 Pa SPI2-10000 : 69 000 Pa |
| Units and resolution | 1 Pa / 0.1 mmH ₂ O / 0.01 mbar / 0.01 inWG / 0.01 mmHG / 0.1daPa / 0.001 kPa / 0.01 hPa |

- Temperature K thermocouple

| | |
|----------------------|--|
| Measuring ranges | From -200 to +1300 °C (according to the probe) |
| Accuracy* | ± 1.1 °C or $\pm 0.4\%$ of the read value ¹ |
| Units and resolution | 0.1 °C / 0.1 °F |

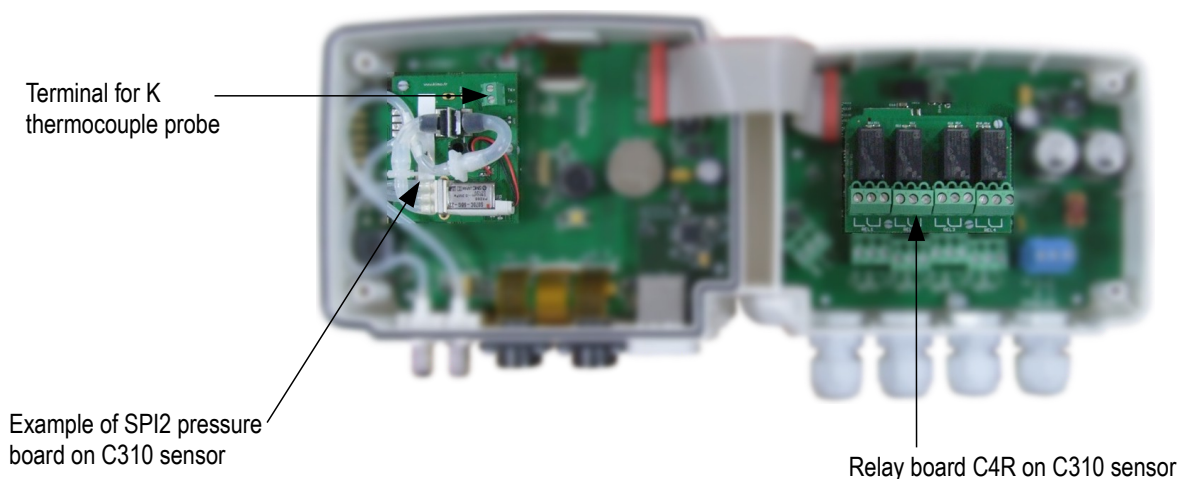
These pressure boards SPI2 for C310 and CA310 sensors have a temperature compensation of the gain from 0 to 50°C and an autocalibration process which guarantee over time an excellent stability and a perfect reliability of the measurement as much in low as high range.

Autocalibration principle : the microchip of the sensor manages an electrovalve which compensates possible remotes of the sensitive element over time. The compensation is insured by a permanent adjustment of the zero. The differential pressure measurement is then independant from the environmental conditions of the sensor.

Electrovalve lifetime : 100 millions of cycles

Advantage : no zero remote

Periodicity of the autocalibration : **detchable** or from 1 to 60 min.



Interchangeable atmospheric pressure board for **C310** and **CA310** sensors, range 800-1100 hPa. Supplied with pressure fitting and silicone tube.

Ref : SPI2-ATMO

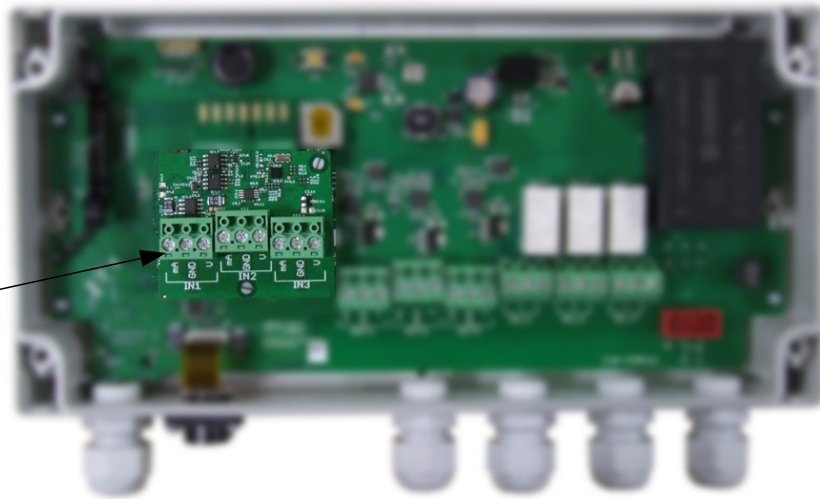
| | |
|----------------------|----------------------------|
| Measuring ranges | From 800 to 1100 hPa |
| Accuracy* | ± 2 hPa |
| Units and resolution | 0.1mbar / 0.1mmHG / 0.1hPa |

^{*}All the accuracies indicated in this technical datasheet were stated in laboratory conditions, and can be guaranteed for measurements carried out in the same conditions, or carried out with calibration compensation.
¹The accuracy is expressed by a gap in °C, or by a percentage of the read value. Only the bigger value is held.

➤ Current / Voltage boards

Interchangeable board, 3 current / voltage analogic input: 0-20 mA / 4-20 mA et 0-2,5 V / 0-5 V / 0-10 V, with terminal, **CA310 sensor**.

Ref : MVA



Example of MVA current / voltage board on CA310 sensor

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Once returned to KIMO, required waste collection will be assured in the respect of the environment in accordance with European guidelines relating to WEEE.

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