

# PRO 131.2 PRO 135.2

## 2-CHANNEL HANDHELD METER / DATA LOGGER FOR THERMOCOUPLE PROBES

#### INTRODUCTION

**PRO 131.2** and **PRO 135.2** are dual channel high class professional handheld meters for thermocouple probes with a rich set of features, high grade robustness and operating comfort for safe and reliable use.

PRO 135 also has data logging capability.



#### Display

The multilingual large dot matrix/clear text LCD has ergonomic wide-angle visibility from daylight to darkness, thanks to the backlight. It displays either large scale values, statistical data or the chart of a variable measurement history.

The HOLD feature allows freezing the measurements on display, while the REL

feature allows showing the measurement against the measured value. °C, °F and K units of measurement are available.

If two probes are connected, the instrument calculates and shows the difference between the measurement of the two channels.

On demand, the display of the internal device temperature (reference junction) can also be switched on.

#### Data Logging (only PRO 135.2)

Large storage capacity: up to 1 million data, file system based.

The logged data are store in CVS files that can be easily viewed connecting the instrument to a PC via USB: the instrument is seen by the PC as a mass storage device, the data can be read oud and evaluated without software necessarily needed. Automatic log with configurable interval.

The instruments integrate a Real Time Clock: date and time of each logged sample are stored.

#### **Alarm**

Configurable alarm thresholds and optionally hysteresis can be set. LCD indication and buzzer activation when thresholds are exceeded.

### CONFIGURATION & MEASUREMENT Probes

Any K, J, T, N, R, S, B and E standard thermocouple probe can be connected. Wide range of probes available.

Configurable surface correction factors can be set for use in combination with Senseca contact probes, for the best measuring accuracy.

#### Connection to PC

Via the USB C port, for viewing or downloading the files stored in the instrument internal memory (only PRO 135.2) or connecting to the application software **ProXware**.

#### **Statistics**

Detection of MIN, AVG (average) and MAX. The user can clear the statistical info to start a new statistical calculation.





#### **HIGHLIGHTS**

- 2-channel for type K, J, T, N, R, S, B, E thermocouple probes
- Display of the difference and of internal temperature
- Fast and accurate
- Backlit dot matrix/clear text display, multilingual
- Life chart display
- Data logger with read out via USB (only PRO 135)
- Statistical functions Min, Avg, Max
- Acoustic/optic alarm with high/ low thresholds and optional hysteresis
- Built-in foldable stand and magnet for flexible operation
- Shock and impact proof
- Optionally available DAkkS/ ACCREDIA certificate

#### Measurement specifications

Measuring range K: -220.0...+1372.0 °C / -364.0...+2501.6 °F

J: -200.0...+1100.0 °C / -328.0...+2012.0 °F N: -200.0...+1300.0 °C / -328.0...+2372.0 °F

S: -50...+1750 °C / -58...+3182 °F T: -200.0...+400.0 °C / -328.0...+752.0 °F E: -60.0...+850.0 °C / -76.0...+1562.0 °F B: +300...+1750 °C / +572...+3182 °F R: -50...+1750 °C / -58...+3182 °F

Resolution  $0.1\,^{\circ}\text{C}/0.1\,^{\circ}\text{F}$  o  $1\,^{\circ}\text{C}/1\,^{\circ}\text{F}$  depending on TC type

(see meas. ranges)

 $\pm$ (0.2 °C + 0.2% of measured value)  $\pm$  1 digit (J, K, N, T, E) Accuracy

 $\pm$ (1 °C + 0.4% of measured value)  $\pm$  1 digit (S, B, R)

±0.3 °C Cold junction

accuracy

4 mes/s

Measurement rate Long-term drift ±0.1 °C/anno Max cable length <30 m

#### Type K thermocouple probes

AX131-D3-130-L01-S-MF Immersion probe, large handle, Ø3 mm, 1 m silicone cable, mini flat pin plug. Art.No. 486731

AX131-I1.5-130-L01-S-MF

Insertion probe, large handle, Ø1,5 mm, 1 m silicone

cable, mini flat pin plug. Art No. 486828

AX131-I3-130-L01-S-MF

Insertion probe, large handle, Ø3 mm, 1 m silicone cable, mini flat pin plug.

Art No. 486829

AX131-M3-150-L01-S-MF

Immersion probe, large handle, Ø3 mm, mineral insulated, 1 m silicone cable, mini flat pin plug.

Art No. 486822

AX131-S15-HA-L01-S-MF Surface probe with spring band, fast, large handle, Ø15 mm, not potential-free, length 120 mm, head Art No. 486852

angled, 1 m silicone cable, mini flat pin plug.

AX131-S15-HS-L01-S-MF Surface probe with spring band, fast, large handle,

Ø15 mm, not potential-free, length 130 mm, head Art No. 486854 straight, 1 m silicone cable, mini flat pin plug.

AX131-S15-TA-L01-S-MF Surface probe with spring band, fast, large handle,

Ø15 mm, not potential-free, length 127+60 mm, Art No. 486853 sensor tube angled, 1 m silicone cable, mini flat pin

AX131-S8-HS-L01-S-MF

Surface probe with coil spring, compact, large handle, Ø8 mm, not potential-free, length 130 mm, Art.No. 486856 ceramic head straight, 1 m silicone cable, mini flat

pin plug.

#### **Ordering codes**

PRO 131.2  Art.No. 486119	2-channel handheld temperature meter for thermocouple probes. Supplied with 4 x AA alkaline batteries.
PRO 135.2	2-channel handheld temperature meter/data logger for
Art.No. 486118	thermocouple probes. Supplied with 4 AA alkaline batteries, USB cable and software downloadable from Senseca website.
Probes have	to be ordered separately.



#### **General specifications**

Channels 2 Miniature female flat-pin TC

connectors, internal temperature

Up to 1 million data sets, file system Storage capacity (only PRO 135.2) based. Each data set includes date/

time stamp and measurement. Data are stored in CVS files.

Logging type (only PRO 135.2) Automatic with manual start/stop

Logging interval

1, 5, 10, 15, 30 s / 1, 2, 5, 10, 15, 20,

(only PRO 135.2) 30 min / 1 hour

Clock User settable RTC

Max. drift 1 min/month @ 25 °C

140 x 160 dot matrix backlit LCD / Display

visible area 42 x 50 mm

Multiple choice of measurement

screens:

• Large digit single value

Multi-row

• Statistical info (Min/Avg/Max)

Chart view

User interface Multilingual

PC connection USB C

Mass Storage Device (only PRO

135.2)

Power supply 4 x AA alkaline batteries

External 5 Vdc via USB C (power

adapter or PC USB port)

Power 20 mA typ.

consumption

Batterv

> 150 h typ. continuous operation

autonomy

Auto power off User configurable

Automatically disabled if external

power is connected

Operating -5...50 °C

conditions 0...85 %RH non-condensing -25...65 °C (without batteries) Storage

temperature

Protection IP 67 (except probe connection)

degree **IK 04** 

 $170\,x\,78\,x\,38\,mm$ Dimensions

Weight 320 g ca.

Housing material ABS, TPE (side protection)

Polyester (front panel)



**TC** connectors

V 2.0