

➔ Measuring System SELECTIVE V5

Prepared for taking up both PTP® electronics with real time data transmission via Bluetooth™

The **measuring board SELECTIVE V5** and **measuring electronics PTP®** make an ideal and versatile instrument for process recording, analysis and optimisation available.

The **measuring board SELECTIVE V5** has eight thermocouples of the highest accuracy class. These are placed permanently stable on specially designed measuring fields. The measuring board is used to check the system parameters and their optimisation in the soldering system.

Due to the integrated calibration holes at the corner positions, the measuring board can also be used for the mechanical calibration of the soldering system.

The **PTP® measuring system** is designed as a real-time Bluetooth con-

nection between the transmitter module TX and receiver module RX, and has an optimum design for the wave and selective processes. Exclusive use of standard interfaces makes maximum flexibility possible. A built-in Li-ion battery guarantees at least four hours of continued use and requires 30 minutes to be recharged on average. The

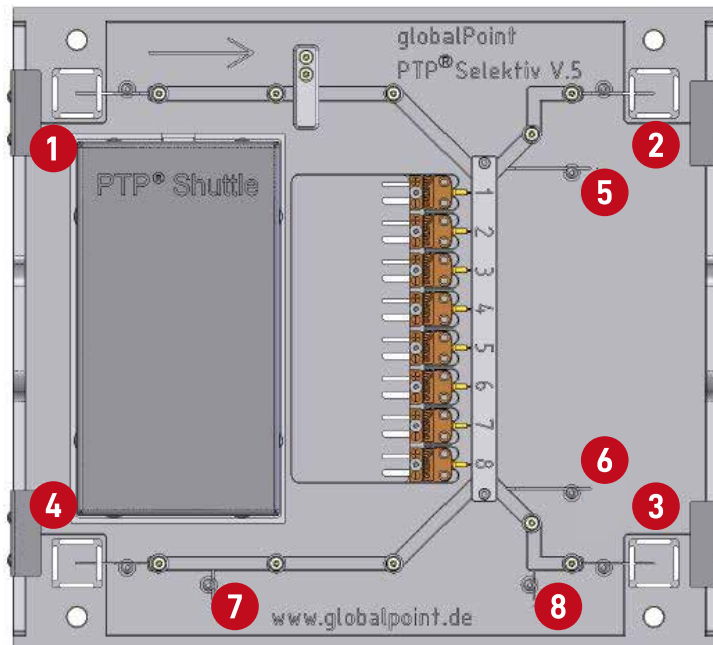
integrated battery charge display and monitoring of the electronics internal temperature guarantees maximum safety and interruption-free operation.

The **PTP® software** provides outstanding solutions for parameter calculation, process evaluation, profile comparison and documentation.

TECHNISCHE DATEN

Maximum ambient temperature for 20s [°C]	350
Long time ambient temperature [°C]	280 - 300
Size (standard board) [WxL]	300 x 330 mm
Max height with shuttle (from conveyor/pin chain)	≤ 37 mm
Tolerance of thermal sensors [°C], K-Type, class 1, IEC 584	≤ ±1.5
After Calibration [°C] (option)	≤ ±0.2
Max. temperature K-type plug connector green [°C]	220
Max. temperature K-type thermal cable PTFE isolation [°C]	260

OVEN CHECK UP



For the basic oven check-up should preferably be used all thermocouples 1 to 8. The measurement of the preheating profile of a selective soldering machine is done with thermocouples 1, 2, 3 and 4. It is recommended to determine the solder temperature with sensors 5 to 8. The contact time for a correct measurement should be ≥ 2 seconds.

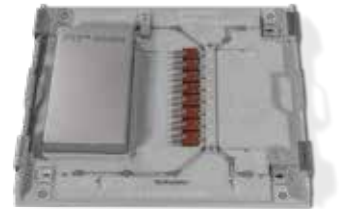
In addition, the movement speed of the axes can be measured. For X-direction thermocouples 7 to 8 and a nozzle movement speed of 4 mm/s are used. For Y-direction thermocouples 5 to 6 and a nozzle movement speed of 4 mm/s are used.

Furthermore, the 4 holes at the corners can be used for a mechanical check of the machine. This check can help to detect a rotation of the axis system.

In the process of a manufacturing shift the atmosphere temperature as a function of the system workload can vary strongly. These fluctuations can quite affect the results of measurement at the measuring standards.

For all measurements (apart from 1, 2, 3 and 4) it is recommended mostly to switch off the fluxing module. That's the best way to avoid solder sticking on the sheathed thermocouples.

CONTENT OF DELIVERY



1x Measuring board with integrated modules:

- > 4 x sensors preheating temperature / PCB below and above
- > 2 x sensors solder contact X-direction (speed and temperature)
- > 2 x sensors solder contact Y-direction (speed and temperature)
- > 1 x thermo-protection-cover for electronics

1x Documentation (Manual and description of Measuring Pallet)

1x Thermo-Protection for electronics

1x 8 K-type thermo cables for the connection contact-strip to electronics

Option: Delivery of customized measuring boards on request!