

Technical Data

Datapaq® SelectivePaq

Measure the Selective Soldering Process Easily and Repeatably

The Datapaq SelectivePaq is designed specifically for use in the confined space of the miniature wave selective soldering process. Combining the new four channel Datapaq Q18 micro data logger with a thermal enclosure and the optional sensor array PA1650, it is a complete solution for monitoring the stability of the selective soldering process.



To monitor this process has been a challenge on machines where the space is limited and the profiler must transit through the process measuring temperatures from the product.

The new Datapaq SelectivePaq addresses this size challenge while

Selective soldering is replacing hand or wave soldering, as it allows greater flexibility in component layouts and produces more consistent joint quality.

addresses this size challenge while retaining the full functionality and flexibility of a reflow profiler. The optional PA1650 selective soldering sensor array can be used to measure process repeatability using both dip solder and preheat sensors.

Datapaq SelectivePaq system

SYSTEM FEATURES

The smallest volume electronics industry profiler on the market can ride through the process with the product to obtain real product temperatures during the selective soldering process.

Used in combination with the PA1650 selective soldering sensor array, the Datapaq SelectivePaq measures both the preheat temperature and dip soldering stability.

The system is supplied with the full Datapaq Reflow Insight™ software and data analysis and includes:

- Maximum slopes
- Maximum temperatures
- Wave contact times



TECHNICAL SPECIFICATIONS



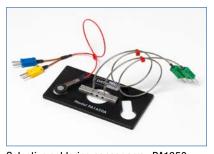
Thermal barrier Datapaq TB2088



Data logger Datapag DQ1804



Thermocouple Datapag PA1610



Selective soldering sensor array PA1650

THERMAL BARRIER TB2088

The Datapaq TB2088 thermal barrier is designed to protect the data logger from the process heat and ensures maximum stability for the measuring circuits. At only 20 mm (0.79 in) high and 40 mm (1.57 in) wide it is the smallest system on the market.

Dimensions (h×w×l) $20 \times 40 \times 180 \text{ mm} (0.79 \times 1.57 \times 7.09 \text{ in})$

Weight 0.3 kg (0.66 lbs)

DATA LOGGER DQ1804

The Datapaq DQ1804 micro data logger is housed in an aluminum case machined from a solid block providing a rugged, but lightweight enclosure. It can measure temperature at up to 20 times per second from four type K thermocouple inputs. The logger makes use of the latest micro-miniature connectors to save space and weight while maintaining ruggedness.

Number of channels 4

Sample interval 0.05 to 10 min

Measurement range -200 to 1370 °C (-328 to 2498 °F)

Resolution 0.1 °C (0.2 °F) **Accuracy** ±0.5 °C (±0.9 °F)

Dimensions (h×w×l) $17 \times 35 \times 149 \,\mathrm{mm} (0.67 \times 1.38 \times 5.87 \,\mathrm{in})$

Weight 155 g (0.34 lbs)

THERMOCOUPLES

Fast response PA1610 thermocouple fitted with micro miniature plug

 $\begin{array}{lll} \textbf{Length} & 0.5\,\text{m} \ (20\,\text{in}) \\ \textbf{Wire diameter} & 0.2\,\text{mm} \ (32\,\,\text{AWG}) \\ \textbf{Temperature range} & 0-265\,^{\circ}\text{C} \ (32-509\,^{\circ}\text{F}) \\ \end{array}$

Accuracy $\pm 0.4 \%$ or $\pm 1.1 ^{\circ}$ C (2.0 °F) ANSI MC96.1 special limits of error.

Selective solder process sensor array PA1650 with micro miniature plugs

The process sensor carrier plate machined from aluminum with one preheat sensor PA1651 and two dip solder sensors PA1630 provides repeatable measurements of the selective soldering machine's performance. It is supplied complete with depth setting gauge and hex key.

Height 4 mm (0.16 in)

Total height 50 mm (2 in) with cables

Width 65 mm (2.56 in) **Length** 120 mm (4.72 in)

DATAPAQ INSIGHT REFLOW SOFTWARE

The Datapaq SelectivePaq is used in conjunction with Datapaq Insight reflow software that combines ease of use with ability to conduct full data analysis when needed. The Datapaq Insight software can be used to monitor reflow, wave, vapor and selective soldering. All are supported by wizards to guide users step-by-step through the process, ensuring accurate consistent analysis.

Fluke Process Instruments

Americas

Everett, WA USA Tel: +1 425 446 6780 sales@flukeprocessinstruments.com

EMEA

Cambridge, UK
Tel: +44 1223 652 400
sales@flukeprocessinstruments.co.uk

China

Beijing, China Tel: +86 10 6438 4691 sales@flukeprocessinstruments.com.cn

Asia East and South

India Tel: +91 22 2920 7691 Singapore Tel: +65 6799 5596 sales.asia@flukeprocessinstruments.com

Worldwide Service

Fluke Process Instruments offers services, including repair and calibration. For more information, contact your local office.

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