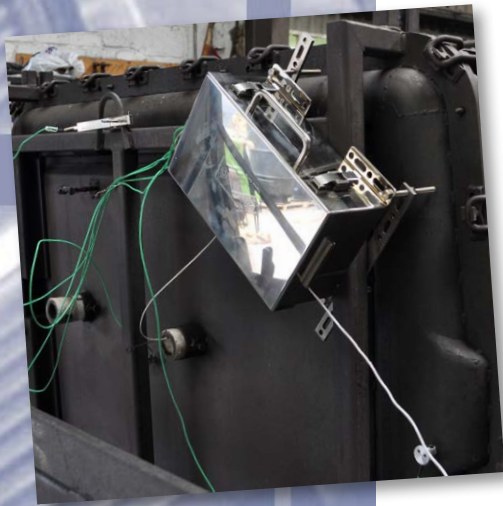




Fluke Process Instruments

RotoPaq Lite

the value rotomolding temperature profile solution



The DataPaq® RotoPaq Lite system is a purpose-built value temperature monitoring system designed for use in rotomolding applications used in the manufacture of domestic and commercial plastic products.

Using the DataPaq RotoPaq Lite system temperature measurement can be made throughout the complete heating and cooling cycle of the rotomolding process. Temperature data can be collected directly from inside the oven, mold surface or even internally within the mold. The temperature profile information gathered provides invaluable information to the phase transitions of the polymer on both heating and cooling. Such information permits the optimization and control of the process and guarantees both the quality of the end product and the efficiency of the manufacturing process.

Complete with data logger, thermal barrier and thermocouples, the system is attached to the rotating mold assembly collecting data safely through the continuous heating and cooling cycles. The temperature data recorded by the logger is transmitted from the process using radio telemetry (RF) so you can see in real time on the computer exactly what is happening in the mold. As well as being transmitted, data is stored in the memory of the data logger as a back-up which can be downloaded post process.

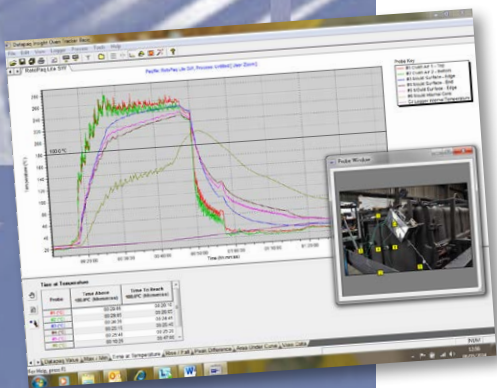
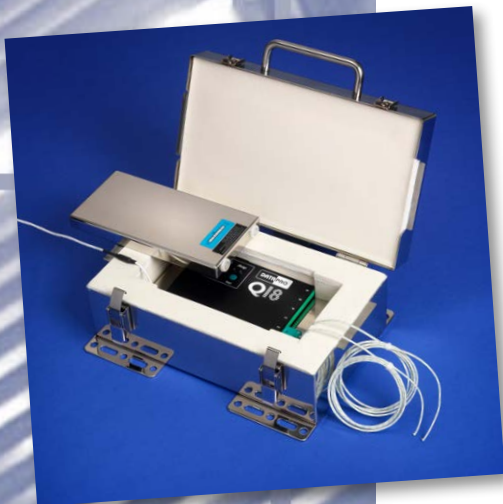
SYSTEM FEATURES

- Process measurement accuracy of $\pm 1.6^{\circ}\text{C}$ ($\pm 2.9^{\circ}\text{F}$)
- Up to 6 measurement channels with range of thermocouples to monitor the whole process comprehensively (oven, mold surface and interior)
- Rechargeable battery allowing cost efficient reliable daily operation
- Multiple high power RF transmissions per measurement maximizing confidence in data transfer efficiency
- Live data review and analysis via RF telemetry link of both process and RotoPaq system operation (data transfer efficiency, battery & temperature)
- Lightweight and compact to not only provide safe easy fitting onto different rotomold systems but allow efficient transportation
- Dual phase thermal protection to allow continuous safe operation over multiple cycles
- Data back-up in logger memory where RF telemetry use difficult or not necessary
- Comprehensive review, analysis and reporting of process information via Insight™ software

SYSTEM BENEFITS

Affordable temperature monitoring system maximizing the full potential of your rotomold systems

- Improved product quality with fewer rejects or product recalls
 - No warping
 - No pinholes/bubble/surface imperfections
 - No discoloration
 - Guaranteed impact resistance
 - No release problems
- Rapid live fault finding reducing rework or process downtime
- Improved productivity through live profile temperature cycle management
- Quicker confident set-up for new products, polymer materials and mold designs
- Accurate profile data for use with computer process simulation programs
- Reduced cycle times improving energy efficiency/operating costs
- Live process compensation possible with climatic changes
- Comprehensive process validation for customers or legislation



TECHNICAL SPECIFICATIONS

TM2I TRANSMITTER (TXI401)

Transmitter fitted inside data logger

DQ1860, Q18 Logger	6 Type K, 85°C Operation
Frequency Ranges*	Euro 434.065-434.740 MHz / USA 463.525-463.975 MHz
Operating Temperature Range	0°C to 85°C
Transmission Range	200 m (656 ft) "in open field conditions"
Sampling Interval Range	1 sec to 10 min
Interleaving Limits	4
Approvals*	EU-CEPT/ERC/70-03E / USA-FCC CFR 47 Part 90

* Contact Datapaq for frequency ranges for other approved countries

TM2I PRIMARY RECEIVER (EURO RX4200, USA RX4100)

Primary receiver with integral USB comms to PC. Powered by CH0070. Equipped with type N RF-connector.

Dimensions (H x W x L)	44 x 139 x 98 mm
Frequency	To match transmitter
Antenna	Desktop 15 cm
Operating Temperature	0°C to 50°C
Status Display	2 line 16 character backlit LCD

THERMAL BARRIER

Stainless steel construction with hinged lid and mounting brackets

Barrier Model	TB5012-RP
Heat Sinks	2 x TB1001
Weight (barrier with heat sinks)	7.35 kg (16.2 lb)
Weight (complete installed system)*	8.4 kg (18.5 lb)
Dimensions (H x W x L)	117 x 244** x 321 mm (4.6 x 9.6** x 12.6 in)
Suitable Logger	DQ1860 or DQ1860-TM

Temperature	100°C (212°F)	150°C (302°F)	200°C (392°F)	250°C (482°F)	300°C (572°F)
Duration (hrs)*	11.5	6.5	4.5	3.5	3

* including barrier, logger and mount bracket fixing kit ASS012

** widest dimension including handle and mount brackets

THERMOCOUPLES

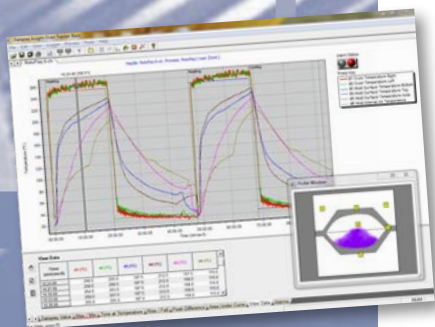
Range of thermocouple options

- Internal mold temperature monitoring: mineral insulated or glass fibre exposed junction probes
- Mold surface: magnetic surface probes for steel; taped exposed junction probes for aluminum
- Oven ambient: exposed junction or magnetic / clip air probes

INSIGHT SOFTWARE "BASIC"

Data review analysis and reporting for standard and RF operation

- Automatic intelligent RF frequency selection and set-up
- Real time tool detailing quality of data transmission for logger / receiver and system status information
- Auto scrolling of profile graph as data is received and plotted
- Full flexibility of zoom functions and profile selection
- Real-time data analysis: maximum temperature, ramp rates / raw data, time at temperature and peak difference, area under curve, overlay templates
- Event markers log events at the precise point they happen on the profile
- Alarm set-up: live data QA checks with auto alerts
- Real-time system status: battery, memory, logger temperature
- Auto saving of data to PC as run completed
- Comprehensive hardcopy reporting options including .pdf or data export
- Upgrade options to Insight Professional with Open Communication Protocol (OPC) capability
- Targeted local languages available



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Worldwide Service

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