

## Q18 Data Loggers

**The most advanced and versatile family of loggers from Datapaq**

These loggers go where no logger has gone before. Whether you need ultra low height, an incredibly narrow footprint, or up to 12 channels with rapid sampling, a Q18 logger is your best choice. Built with legendary Datapaq durability and accuracy, these loggers give years of reliable profiling.

- Ultra-fast USB connection
- Small footprint: less than 63.5 mm (2.5 in) wide, 12.7 mm (0.5 in) high
- Rapid charging

The environmentally friendly NiMH battery charges from flat to usable in five minutes. A full charge takes only two hours and lasts 150 runs. That eliminates daily recharging and the need to store batteries. And with 'hot data' protection, data cannot be accidentally erased before downloading.

## Thermal Barriers

Our lead free capable barriers are incredibly lightweight and are constructed of durable stainless steel that won't be damaged by forceful handling. Our most popular barrier weighs a mere 0.7 kg (1.6 lbs) and can handle 300°C (572°F) for over eight minutes. With a wide variety of barriers to choose from, we can easily customize a system to meet your specific needs.

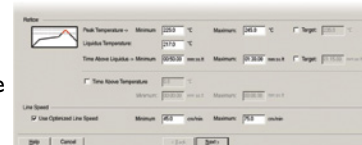


## System Enhancements

### Easy Oven Setup (EOS)

#### Automatic Recipe Definition

No more wasted assemblies. No more wasted time with trial-and-error profiling. EOS assures you get it right the first time. And, it's the fastest way to set up your reflow oven for new assemblies.



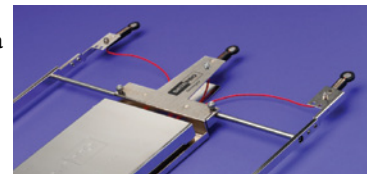
Three simple steps are required:

1. Profile the product in the reflow oven, enabling our software to calculate the thermal characteristics of the product or PCB assembly.
2. Enter the profile process limits using as much or as little detail as you require.
3. CLICK and the software will select the oven settings required to obtain the optimum profile for these limits.

### Surveyor™

#### Process Monitoring WITHOUT Test Boards

The Datapaq Surveyor provides an easy and accurate way to monitor the thermal performance of your reflow oven. With its special sensors, the Surveyor can identify out of tolerance conditions before they become a problem. This system eliminates the need for test boards, while simplifying your profiling process.



Consisting of an adjustable frame, fixed sensors and the all new surveyor software, this is the industry's most reliable oven performance monitor.

### Wave Solder Pallet

**Easy, accurate measurement without complicated tools**

Combine your Datapaq system with our wave solder pallet to get repeatable wave process information. Now it's easy to monitor the preheat chip and main waves of your machine. Insight software will analyze the parallelism, contact time, contact length and even the conveyor speed automatically. And you can view all these critical parameters in one easy-to-read report.



## Technical Specifications

### Q18 Data Logger

<b>Memory</b>	55,000 readings per channel
<b>Sampling Interval</b>	0.05 seconds to 10 minutes
<b>Accuracy</b>	±0.5°C (±0.9°F)
<b>Resolution</b>	0.1°C (0.2°F)
<b>Maximum Internal Operating Temperature</b>	85°C (185°F)
<b>Temperature Range</b>	-200°C to 1370°C (-328°F to 2498°F)
<b>Data collection start</b>	Start/Stop buttons, time or temperature trigger
<b>Battery</b>	Nickel Metal Hydride (NiMH) rechargeable
<b>Thermocouple</b>	Type K, Special Limits of Error ANSI MC 96.1

Part	Height	Width	Length	Weight	No. of Channels
DQ1812	20 mm (0.8 in)	60 mm (2.4 in)	237 mm (9.3 in)	0.4 kg (12.4 oz)	12
DQ1810	20 mm (0.8 in)	60 mm (2.4 in)	221 mm (8.7 in)	0.3 kg (10.5 oz)	10
DQ1860	11.7 mm (0.5 in)	106 mm (4.2 in)	150 mm (5.9 in)	0.4 kg (12.4 oz)	6
DQ1862	20 mm (0.8 in)	57 mm (2.2 in)	165 mm (6.4 in)	0.3 kg (10.5 oz)	6
DQ1861	12 mm (0.5 in)	62 mm (2.4 in)	302 mm (12 in)	0.4 kg (12.4 oz)	6

### Standard System Thermal Barriers

Part	Height	Width	Length	Weight	Time @ Temperature (mins)		
					@ 200°C (392°F)	@ 250°C (482°F)	@ 280°C (536°F)
<b>DQ1812 Suitable Thermal Barriers</b>							
TB2081	28 mm (1.1 in)	88 mm (3.4 in)	274 mm (10.17 in)	0.6 kg (1.3 lbs)	10	8	7
TB2082	35 mm (1.3 in)	88 mm (3.4 in)	274 mm (10.17 in)	0.7 kg (1.5 lbs)	13	11	10
<b>DQ1810 Suitable Thermal Barriers</b>							
TB2061	28 mm (1.1 in)	88 mm (3.4 in)	258 mm (10.1 in)	0.6 kg (1.3 lbs)	10	8	7
TB2062	35 mm (1.3 in)	88 mm (3.4 in)	258 mm (10.1 in)	0.7 kg (1.5 lbs)	13	11	10
<b>DQ1860 Suitable Thermal Barriers</b>							
TB2064	20 mm (.79 in)	133 mm (5.2 in)	210 mm (8.2 in)	0.6 kg (1.3 lbs)	9	8	6
TB2015	25 mm (.98 in)	133 mm (5.2 in)	210 mm (8.2 in)	0.7 kg (1.5 lbs)	13	10	9
TB2065	29 mm (1.1 in)	133 mm (5.2 in)	210 mm (8.2 in)	0.7 kg (1.5 lbs)	13	11	10
<b>DQ1862 Suitable Thermal Barriers</b>							
TB2020	28 mm (1.1 in)	84 mm (3.3 in)	223 mm (8.7 in)	0.5 kg (1.1 lbs)	10	8	7
TB2021	35 mm (1.3 in)	84 mm (3.3 in)	223 mm (8.7 in)	0.65 kg (1.4 lbs)	13	11	10
<b>DQ1861 Suitable Thermal Barriers</b>							
TB2066	20 mm (.79 in)	88 mm (3.4 in)	334 mm (13.1 in)	0.65 kg (1.4 lbs)	8	6	6
TB2067	25 mm (.98 in)	88 mm (3.4 in)	334 mm (13.1 in)	0.65 kg (1.4 lbs)	11	10	8
TB2068	29 mm (1.1 in)	88 mm (3.4 in)	334 mm (13.1 in)	0.8 kg (1.8 lbs)	13	11	10




Datapaq designs and manufactures over 100 thermal barriers. Call with your process details to select the barrier specific to your application.

### THE DATAPAQ GUARANTEE

Each Datapaq system is supported with a full one year warranty. Complementing the warranty, we offer a yearly service and re-calibration contract, which includes free software updates and loan equipment for guaranteed peace of mind.\*

\* Dependent on country.

## The Worldwide Leader in Temperature Profiling

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A Fluke Company

# Thermal Barriers

for Q18 data loggers (6, 10, and 12 channel)

Our lead free, rugged barriers are incredibly lightweight and are constructed of durable stainless steel that is not easily damaged by forceful handling. Our most popular barrier weighs only 0.7 kg (1.6 lb) and can survive temperatures of 300°C (572°F) for over eight minutes.

Datapaq® thermal barriers routinely withstand the harshest industrial environments. They are made of the same insulation used in an airplane's 'black box' and are proven to protect your data logger run after run, day after day.

## THERMAL BARRIERS SUITABLE FOR 6 CHANNEL DATA LOGGER – DQ1860

### TB2064 – LOW HEIGHT THERMAL BARRIER

A low height barrier for profiling ovens with very tight clearances. If rapid re-use is required or a longer than standard process is to be profiled, then consider TB2015 or TB2065.

<b>Weight</b>	0.6 kg (1.3 lb)		
<b>Dimensions (H x W x L)</b>	20 x 133 x 210 (0.8 in x 5.2 in x 8.3 in)		
<b>Thermal Duration</b>			
Temperature	200°C (392°F)	250°C (482°F)	280°C (536°F)
Duration (mins)	9	8	6

### TB2015 – STANDARD THERMAL BARRIER

The standard workhouse barrier used in thousands of facilities worldwide. If height is limited, consider the TB2064. If very frequent, heavy use is planned, consider the TB2065.

<b>Weight</b>	0.68 kg (1.5 lb)		
<b>Dimensions (H x W x L)</b>	25 x 133 x 210 (1.0 in x 5.2 in x 8.3 in)		
<b>Thermal Duration</b>			
Temperature	200°C (392°F)	250°C (482°F)	280°C (536°F)
Duration (mins)	13	10	9

### TB2065 – LONG DURATION THERMAL BARRIER

Designed for longer duration and higher temperature processes. The choice when frequent profiling is needed and cool down time is limited.

<b>Weight</b>	0.68 kg (1.5 lb)		
<b>Dimensions (H x W x L)</b>	29 x 133 x 210 (1.1 in x 5.2 in x 8.3 in)		
<b>Thermal Duration</b>			
Temperature	200°C (392°F)	250°C (482°F)	280°C (536°F)
Duration (mins)	13	11	10

## THERMAL BARRIERS SUITABLE FOR 6 CHANNEL NARROW DATA LOGGER – DQ1862

### TB2020 – LOW HEIGHT, NARROW THERMAL BARRIER

For profiling small products where oven width and height are limited.

<b>Weight</b>	0.5 kg (1.1 lb)		
<b>Dimensions (H x W x L)</b>	28 x 84 x 223 (1.1 in x 3.3 in x 8.8 in)		
<b>Thermal Duration</b>			
Temperature	200°C (392°F)	250°C (482°F)	280°C (536°F)
Duration (mins)	10	8	7

### TB2021 – NARROW THERMAL BARRIER

Narrow for limited width with enough insulation for rapid re-use. If height is limited, then consider the TB2020.

<b>Weight</b>	0.65 kg (1.4 lb)		
<b>Dimensions (H x W x L)</b>	35 x 84 x 223 (1.3 in x 3.3 in x 8.8 in)		
<b>Thermal Duration</b>			
Temperature	200°C (392°F)	250°C (482°F)	280°C (536°F)
Duration (mins)	13	11	10





## THERMAL BARRIERS SUITABLE FOR 6 CHANNEL SUPER SLIM DATA LOGGER – DQ1861

### TB2066 – LOW HEIGHT, SLIM THERMAL BARRIER

Created to profile very narrow and low height assemblies.

<b>Weight</b>	0.65 kg (1.4 lb)		
<b>Dimensions (H x W x L)</b>	20 x 87 x 328 (0.8 in x 3.4 in x 12.9 in)		
<b>Thermal Duration</b>			
Temperature	200°C (392°F)	250°C (482°F)	280°C (536°F)
Duration (mins)	8	6	6

### TB2067 – STANDARD SLIM THERMAL BARRIER

Standard height, yet slim for frequent profiling of narrow processes. If height is limited, consider the TB2066. If very heavy use is planned, consider the TB2068.

<b>Weight</b>	0.75 kg (1.7 lb)		
<b>Dimensions (H x W x L)</b>	25 x 87 x 328 (1.0 in x 3.4 in x 12.9 in)		
<b>Thermal Duration</b>			
Temperature	200°C (392°F)	250°C (482°F)	280°C (536°F)
Duration (mins)	11	10	8

### TB2068 – LONG DURATION SLIM THERMAL BARRIER

For longer duration and higher temperature processes, or when frequent profiling is needed and cool down time is limited.

<b>Weight</b>	0.8 kg (1.8 lb)		
<b>Dimensions (H x W x L)</b>	29 x 87 x 328 (1.1 in x 3.4 in x 12.9 in)		
<b>Thermal Duration</b>			
Temperature	200°C (392°F)	250°C (482°F)	280°C (536°F)
Duration (mins)	13	11	10

## THERMAL BARRIERS SUITABLE FOR 10 CHANNEL DATA LOGGER – DQ1810

### TB2061 – LOW HEIGHT 10 CHANNEL THERMAL BARRIER

Designed for convection or IR soldering processes where height is restricted and 10 thermocouple channels are needed.

<b>Weight</b>	0.6 kg (1.3 lb)		
<b>Dimensions (H x W x L)</b>	28 x 87.5 x 257.5 (1.1 in x 3.4 in x 10.1 in)		
<b>Thermal Duration</b>			
Temperature	200°C (392°F)	250°C (482°F)	280°C (536°F)

### TB2062 – STANDARD 10 CHANNEL THERMAL BARRIER

Provides optimum insulation in a compact package, suitable for frequent use.

<b>Weight</b>	0.68 kg (1.5 lb)		
<b>Dimensions (H x W x L)</b>	35 x 87.5 x 257.5 (1.4 in x 3.4 in x 10.1 in)		
<b>Thermal Duration</b>			
Temperature	200°C (392°F)	250°C (482°F)	280°C (536°F)
Duration (mins)	13	11	10

## THERMAL BARRIERS SUITABLE FOR 12 CHANNEL DATA LOGGER – DQ1812

### TB2081 – LOW HEIGHT 12 CHANNEL THERMAL BARRIER

Designed primarily for use in convection or IR reflow soldering processes, where the process height is restricted and 12 thermocouple channels are required.

<b>Weight</b>	0.6 kg (1.3 lb)		
<b>Dimensions (H x W x L)</b>	28 x 88 x 274 (1.1 in x 3.4 in x 10.7 in)		
<b>Thermal Duration</b>			
Temperature	200°C (392°F)	250°C (482°F)	280°C (536°F)
Duration (mins)	10	8	7

### TB2082 – STANDARD 12 CHANNEL THERMAL BARRIER

Designed primarily for use in convection or IR reflow soldering processes.

<b>Weight</b>	0.7 kg (1.4 lb)		
<b>Dimensions (H x W x L)</b>	35 x 88 x 274 (1.3 in x 3.4 in x 10.7 in)		
<b>Thermal Duration</b>			
Temperature	200°C (392°F)	250°C (482°F)	280°C (536°F)
Duration (mins)	13	11	10

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