The Q-tag® Quad
The Q-tag® Quad is a temperature monitoring indicator which measures reliably and precisely environmental temperature in which it is situated. It will compute up to 4 individual alarms according to the programmed conditions. Triggered alarms will be displayed on the LCD with simple and easy to understand symbols.

Alarm explanation
ALM 1 ▲ Single-event alarm "high"
ALM 2 ▲ Cumulative alarm "high"
ALM 3 ▲ Cumulative alarm "low" or “high”
ALM 4 ▲ Single-event alarm "low"

Operating instructions

1) State of delivery / Sleep Mode
Q-tag® Quad is shipped in its so-called "Sleep Mode". This will be observed by the constantly flashing dot (running indicator) on the display.

2) Activation of the Q-tag® Quad
Please always verify the expiry date prior to using any device (see "Expiry Code Explanation").
The device is activated by pressing the START-button for at least 2 seconds.
The active recording is shown by the ✓ (OK symbol) and the flashing dot on the display.

Note (only for standard Version):
Prior to start make sure that the device is not yet activated, otherwise it will stop.
To avoid accidental deactivation of the device, the stop function is locked for about 1 minute after the activation.
3) Start delay time (optional)
If a start delay time has been programmed, it will be activated the moment you press the START-button for at least 2 seconds. The start delay time is not visible. Temperature measurement will only start after completion of the start delay time.

Note: To avoid accidental deactivation of the device, the stop function is locked during the start delay time.

4) Temperature recording
Placing the Q-tag® Quad
The activated monitor must be placed immediately in its predetermined location. It is recommended to place the device as close to the supervised goods as possible. This is an important prerequisite to ensure the temperatures observed by the device are as close to the product temperature as possible.

Note: It is recommended to "precondition" the device for about 30 minutes to the desired mean temperature before use, especially if no start delay time has been programmed. This is to insure against false readings during start up.

5) Display indication during temperature recording

<table>
<thead>
<tr>
<th>Display examples of temperature recording:</th>
<th></th>
</tr>
</thead>
</table>
| **OK Display**                            | A ✓ (OK symbol) is indicated during normal operation as long as no alarms have been recorded.  
The monitored goods have not been exposed to temperature and time conditions outside the pre-set alarm parameters |

| ALARM Display                             | This ✓ (OK symbol) will be replaced by a ✘ (ALARM symbol) as soon as any alarm has been triggered. Additional arrows are shown in the left display area to indicate which limit has been violated.  
The monitored goods have been exposed to temperature and time conditions outside the pre-set alarm parameters. The ALARM indication cannot be cancelled nor reset |

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6) End of temperature recording / Stop Mode  
(only for standard Version)

The Q-tag® Quad may be stopped if the recording shall be finished, e.g. if a shipment has reached its final destination.

To do so, the STOP-button shall be pressed for at least 2 seconds. The running indicator disappears. A  (OK symbol) or a  (ALARM symbol) and alarm flags remain stable for at least 3 month.

Explanation of terms

Sleep Mode
This is the state of delivery of the device. It is the lowest current consumption state of the Q-tag® Quad. The device is not activated and no data recording is made.

Start delay time (optional)
The start delay is an optional functionality. If a start delay has been factory preset, the Q-tag® Quad starts recording the temperature after the completion of the start delay time.

Technical Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage condition (inactive)</td>
<td>0 °C to +30 °C</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-30 °C to +55 °C</td>
</tr>
<tr>
<td>Display visible</td>
<td>-10 °C to +55 °C</td>
</tr>
<tr>
<td>Accuracy of temperature measurement</td>
<td>+/- 0.8 °C (-30 °C to -20 °C)</td>
</tr>
<tr>
<td></td>
<td>+/- 0.5 °C (-20 °C to +40 °C)</td>
</tr>
<tr>
<td></td>
<td>+/- 0.8 °C (+40 °C to +55 °C)</td>
</tr>
<tr>
<td>Accuracy of time measurement</td>
<td>+/- 30 minutes/year</td>
</tr>
<tr>
<td>Temperature measurement interval</td>
<td>every minute</td>
</tr>
<tr>
<td>Operating lifetime and shelf life</td>
<td>Up to 5 years – expiry date printed on label</td>
</tr>
<tr>
<td>Protection class</td>
<td>IP67</td>
</tr>
</tbody>
</table>

Expiry Code Explanation

Sample: EXP 2017-02               Means that the expiry date of the Q-tag® Quad is February 2017
Important

Activation / Manipulation

The Q-tag® Quad is activated by pressing the START-button for more than 2 seconds. To avoid manipulation this activation process cannot be reversed. If a device has been started by mistake it must be replaced.

Liability

The manufacturer shall not be held liable:

- if the device was used beyond the manufacturer’s given limitations.
- for any claims due to the improper storage and use of the device.
- for any problems with the temperature controlling and / or cooling unit.
- for the bad quality of any monitored goods.
- for incorrect readings if the device was used beyond its expiry date.

Battery

The Q-tag® Quad contains a CR Lithium battery. Please pay strict attention to the following points:

- The housing of the Q-tag® Quad must never be opened nor destroyed.
- Do not expose the Q-tag® Quad to temperatures above the allowed range (fire, oven, micro waves, etc.). It may cause injuries.
- Always keep the Q-tag® Quad out of the reach of children.
- The battery complies with IATA DGR Packaging Instruction 970 Section II and is therefore not considered as dangerous good.
- Dispose or recycle the Q-tag® Quad in accordance with the WEEE 2012/19/EU guidelines or your local regulations. The device may also be returned to the manufacturer for proper recycling.
- The end of the battery life is indicated by the expiry date of the device. Accuracy and proper function of the device cannot be assured beyond this date.

Useful life

The devices can be used up to 5 years after production date (expiry date printed on label) on the condition that:

- the button is not pressed for very long time, e.g. if jammed between the goods in a shipment.
- storage and operation of the device remains inside the recommendations of the manufacturer, especially very low temperatures shall be avoided.

Attention

The Q-tag® Quad monitors temperature exposure and not the product quality. Its purpose is to signal if product quality evaluation or testing is required.

Subject to change. Please note that all information in this document is correct at the time of publication. Due to our policy of continuous product development, we reserve the right to change this information without prior notice.

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