Domestic water consumptions data acquisition device
MONITOR 2.0 PULSE
7200 series

Function
MONITOR 2.0 PULSE is a pulse acquisition device that, combined with a domestic hot and/or cold water meter with pulse output, enables measuring domestic water consumption for cost accounting for each dwelling. Consumption data can be collected via radio and processed directly by the building administrator/manager.

Product range
Code 720030 MONITOR 2.0 PULSE acquisition device. Complete with mounting kit
Code 720090 USB/radio transmission device + SW7200 software for reading and processing consumption data

Completion products
Code 7942.. Volume meter with pulse output for domestic cold water
Code 7942../C Volume meter with pulse output for domestic hot water

Features
- Acquires, stores and transmits consumption data from domestic water meters.
- Can be connected to a volume meter with pulse output.
- Suitable for different types of meters thanks to the possibility of programming the K value (litres/pulse) during installation.
- Radio transmitted domestic water consumption readouts from outside the apartment.

Advantages
- Fair allocation of domestic hot or cold water costs, based on consumption.
- Encourages the rationalization of individual consumption of energy and water.
- Allows transparency of consumption thanks to the daily logging, in addition to the monthly and annual ones.
- Installation requires neither masonry work nor connection to the mains.
- Ultra low-emission radio system, in line with European reference standards.

Dimensions

<table>
<thead>
<tr>
<th>Code</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Mass (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>720030</td>
<td>39</td>
<td>98</td>
<td>30.5</td>
<td>0.051</td>
</tr>
</tbody>
</table>
**Characteristic components**

1. Anti-tampering seal  
2. Acquisition device complete with PCB  
3. Protection for anti-tampering element (to be removed during installation)  
4. Display selection key  
5. Wall mounting screws  
6. Plastic plate for wall mounting  
7. Wall mounting wall anchors

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**Technical specifications**

3 V lithium battery (≈) maximum battery life 10 years (under normal usage conditions).

**Material**

Casing: PC, ABS

**Metering**

Measurement range: from 0 to 999999.999  
Count log: daily for 18 months and at the last 36 end of month  
Permissible range of values: from 1 to 1000 l per pulse  
Unit of measurement: m³ - kWh

**Certification**

Directive 1999/5/EEC (R&TTE)

**Display**

Display reading: display test, alarms and faults, current and previous period total consumption (with logging date), operating status, serial number.

**Transmission**

Two-way wireless transmission, ONLY enabled during readouts for 0.1 seconds, 868.0–868.5 MHz, 20 mW.

**Other specifications**

Fitted for centralised readouts by means of a building datalogger.  
Regular operating efficiency auto-check  
Selection key  
Protection class: IP 31 (mounted pulse acquisition device)  
Anti-tampering internal seal and microswitch  
Programmable annual logging date  
6-digit LCD display

**Ambient conditions**

Transport and warehouse storage temperature: 0–40°C  
Working temperature: 10–40°C  
Maximum non-condensing relative humidity: 65%

**Mounting kit components**

Wall mounting screws: galvanised steel  
Wall mounting wall anchors

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**Installation of MONITOR 2.0 PULSE code 720030**

Firstly use the special wall anchors supplied in the kit, install the plastic rear plate and then use the mounting screws.  
Connect the pulse output cable of the volume meter to the inputs with screw terminals (Fig. A) securing it as shown in the figure.  
Lastly, close the pulse acquisition device with the anti-tampering system (see instruction sheet).

The generic pulse must have no potential (volt free contact, maximum frequency 50 Hz).

**Important!**

To ensure the consumption acquisition device works properly it must not be positioned in direct contact with the pipes nor underneath them to avoid problems of condensation and moisture.
Warnings

Installation and user obligations. Installation, parameterisation and commissioning of the metering system and the individual devices must only be carried out by specialised installers. The specific installation manual must therefore be consulted during the installation process.

The user should not modify or tamper with individual devices. If indoor renovation or painting work is required, the final user must contact a specialised and certified installer to intervene on the system.

Safety information. Please read the simple safety standards below. Failure to observe these standards could result in a hazardous situation (i.e. may cause personal injury or damage possessions).

Hazardous malfunctioning. If the device emits any smoke, unusual odours or anomalous noise, do not touch it as it may cause burns. Contact the Service Centre or your installer for assistance.

Inappropriate use. Do not drop, hit or shake the device, as this may damage its internal circuits and components. Do not paint the device, do not insert any objects, keep the device dry, do not open or attempt to open the plastic shell, as doing so may damage the device, affect its operating features, or even cause personal injury. Only use the devices in accordance with the instructions provided in the corresponding documentation.

Accessories. Only use the accessories supplied or those specifically approved by CALEFFI S.p.A.

Radio interference. Devices communicating via radio are subject to interference that could affect their operation. Avoid intense electromagnetic fields near the devices.

Hearing aids. Radio devices may interfere with some hearing aids.

Medical equipment. The use of any receiver/transmitter devices may interfere with the operation of medical equipment that is not fitted with suitable protection. Consult a doctor or the manufacturer of the medical equipment to find out whether it is compatible with the wireless device.

Cleaning. Use a clean, soft cloth slightly dampened with a mild detergent solution to clean the device, making sure no liquids get inside it. Do not use solvents, corrosive or abrasive chemicals, aggressive detergents, alcohol, petrol, turpentine, spray products, etc.

Qualified assistance. Only qualified and authorised personnel may install and service the devices.

Completion codes

7942
Volume meter for domestic hot / cold water (MI001).
With pulse output. Complete with fittings

Conforms with directive 2004/22/EC (MI001)

Domestic cold water (max. 30°C)

<table>
<thead>
<tr>
<th>Code</th>
<th>Size (inch)</th>
</tr>
</thead>
<tbody>
<tr>
<td>794204</td>
<td>1/2&quot;</td>
</tr>
<tr>
<td>794205</td>
<td>3/4&quot;</td>
</tr>
<tr>
<td>794206</td>
<td>1&quot;</td>
</tr>
</tbody>
</table>

Domestic hot water (30–90°C)

<table>
<thead>
<tr>
<th>Code</th>
<th>Size (inch)</th>
</tr>
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<tbody>
<tr>
<td>794204/C</td>
<td>1/2&quot;</td>
</tr>
<tr>
<td>794205/C</td>
<td>3/4&quot;</td>
</tr>
<tr>
<td>794206/C</td>
<td>1&quot;</td>
</tr>
</tbody>
</table>

7200
USB/radio device + SW7200 software for reading and processing consumption data.
Two-way wireless communication 868.0–868.5 MHz, 20 mW.
Software developed in Microsoft® Windows environment.

Code

7200 USA" radio device + SW7200
**Possible faults and solutions**

<table>
<thead>
<tr>
<th>Problem/Fault</th>
<th>Likely cause</th>
<th>Operations to be performed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missing seal</td>
<td>Tampering</td>
<td>Contact certified installer</td>
</tr>
<tr>
<td>Device position has changed since installation</td>
<td>Tampering, impact or similar</td>
<td>Contact certified installer</td>
</tr>
<tr>
<td>The display shows alert code <code>FL88BB</code> or <code>Fr88BB</code></td>
<td>Internal self-test has detected a fault</td>
<td>Contact an authorised installer and quote code <code>FL88BB</code> or <code>Fr88BB</code></td>
</tr>
<tr>
<td>Low operating consumption values are shown</td>
<td>Volume meter replacement</td>
<td>This is not a fault. When you replace a volume meter the count of the acquisition device must be realigned with that of the new meter whose consumption will be lower than that of the previous one</td>
</tr>
<tr>
<td>No information on display when key pressed</td>
<td>Internal problem</td>
<td>Contact certified installer to have the device checked</td>
</tr>
</tbody>
</table>

**Consumption data acquisition** via USB/radio device or datalogger.

**Hydraulic adjustment of the heating system**

The application of thermostatic control heads, where not already present, prompts balancing of the risers in the central heating system. Every riser should, for example, be equipped with a differential pressure regulator (140 series) combined with a pre-regulation and shut-off valve (142 series). It is also advisable to use thermostatic valves with pre-setting.

It is wise to entrust the heating engineer with the assessment of any adjustments to the central heating system.

**SPECIFICATION SUMMARY**

**Code 720030**

MONITOR 2.0 PULSE consumption data acquisition device for use with systems featuring hot and/or cold water pulse meters, with the following features: 6-digit display for viewing consumption data; operating temperature range 10–40°C; protection class IP 31 (mounted acquisition device); electric supply via 3 V lithium battery (—) maximum life 10 years (under normal display and radio transmission usage conditions); two-way radio transmission 868.0–868.5 MHz, 20 mW; initial parameterisation of the device and consumption data readouts via USB/radio device; fitted for centralised readouts by means of a building datalogger.

We reserve the right to make changes and improvements to the products and related data in this publication, at any time and without prior notice.