Domestic water consumptions data acquisition device
MONITOR 2.0 PULSE
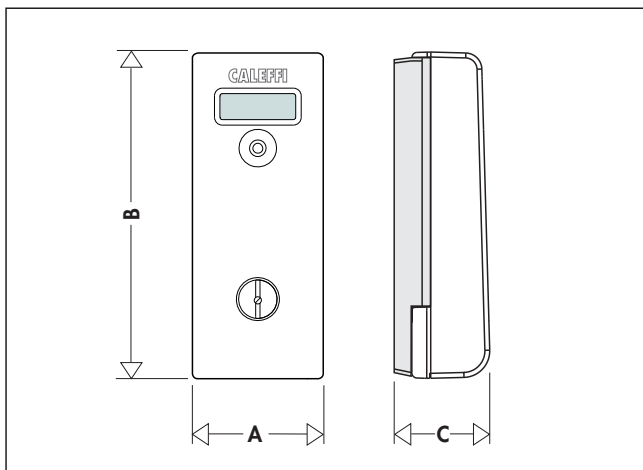
7200 series

ANAB ACCREDITED BSI ISO 9001 FM 21654 ICIM ISO 9001 No. 0003

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
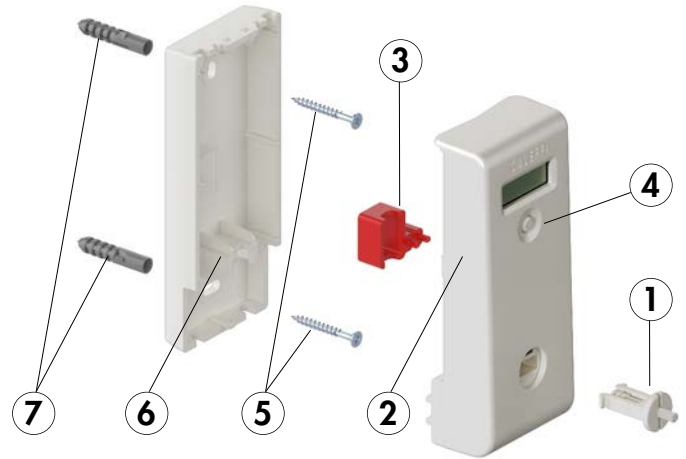
Features

- 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.

CE 0470

Dimensions

Code	A	B	C	Mass (kg)
720030	39	98	30,5	0,051

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

Technical specifications

3 V lithium battery ($\overline{}$) 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	

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).
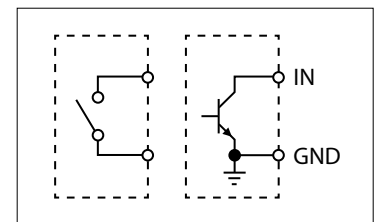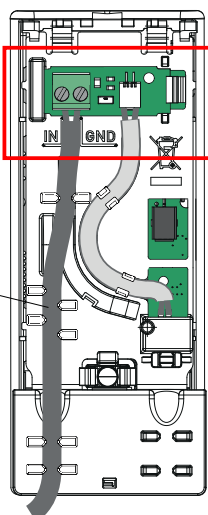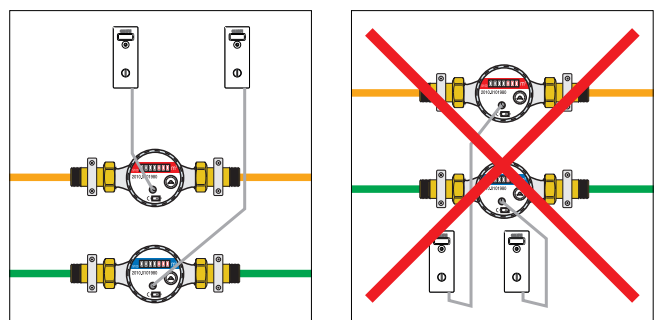

Important!
To ensure the consumption acquisition device works properly it must not be positioned in direct contact with the pipes nor underneath them to avoid problems of condensation and moisture.

Fig. A

Volume meter pulse output cable

Warnings

Installation and user obligations. Installation, parameterisation and commissioning of the metering system and the individual devices must only be carried out be 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 which 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

tech. broch. 01211

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

Conforms with directive 2004/22/EC (MI001)

ACS

Domestic cold water (max. 30°C)

Code	
794204	1/2"
794205	3/4"
794206	1"

Domestic hot water (30–90°C)

Code	
794204/C	1/2"
794205/C	3/4"
794206/C	1"

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
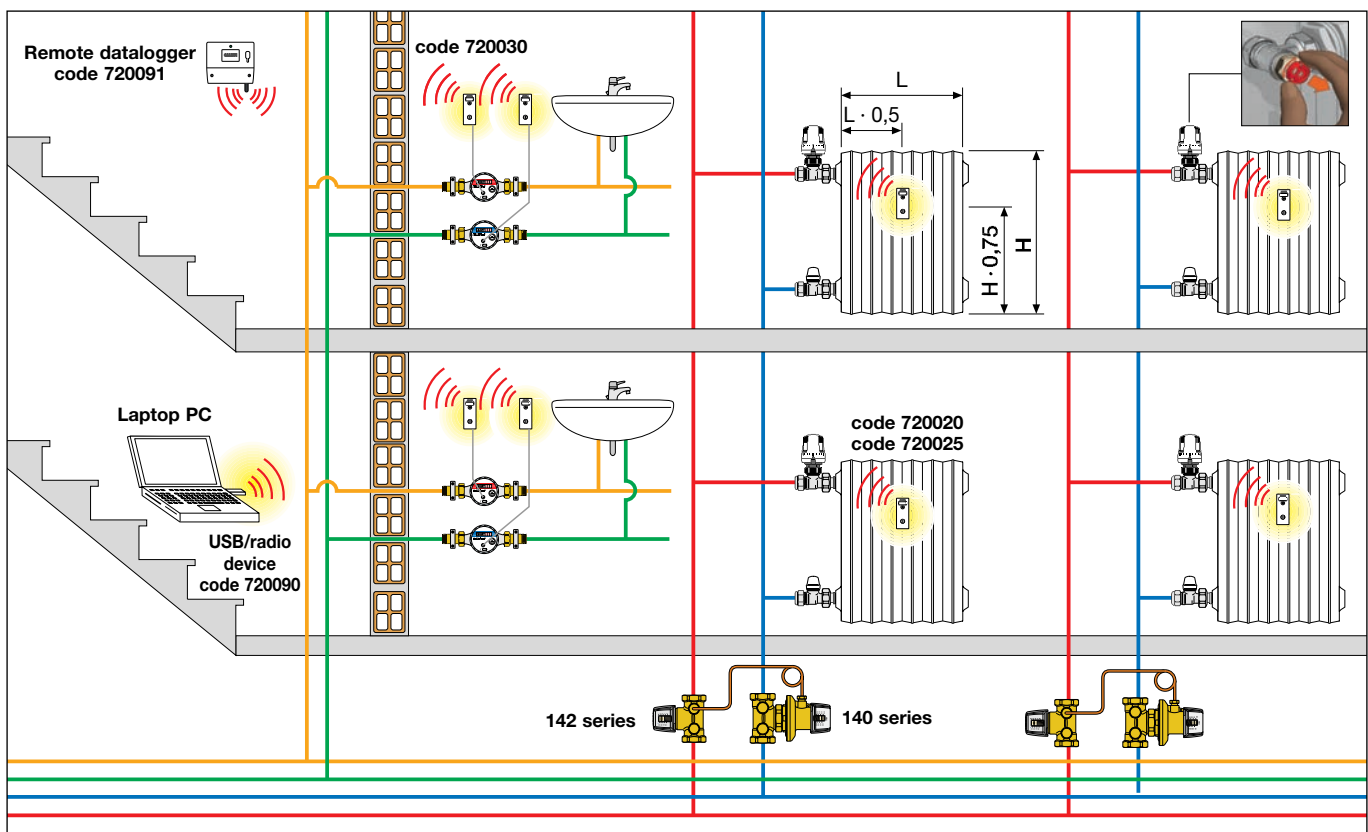Microsoft® Windows environment.

CE 0470

Code	
720090	USB/radio device + SW7200

Possible faults and solutions

Problem/Fault	Likely cause	Operations to be performed
Missing seal	Tampering	Contact certified installer
Device position has changed since installation	Tampering, impact or similar	Contact certified installer
The display shows alert code FL8888 or Fr8888	Internal self-test has detected a fault	Contact an authorised installer and quote code FL8888 or Fr8888
Low operating consumption values are shown	Volume meter replacement	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
No information on display when key pressed	Internal problem	Contact certified installer to have the device checked

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.