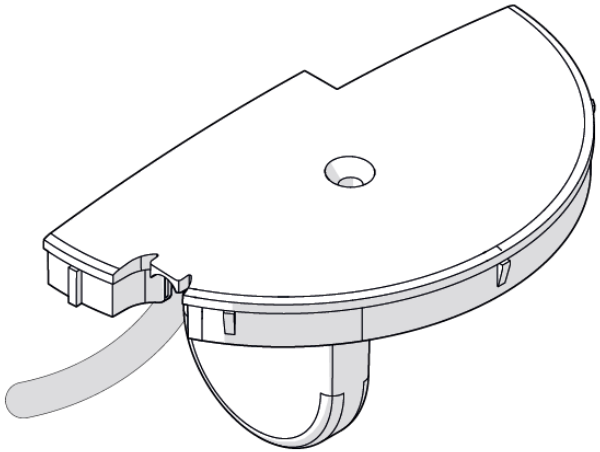
M-Bus Evo

Kit sensore ottico con uscita M-Bus

Istruzioni di installazione



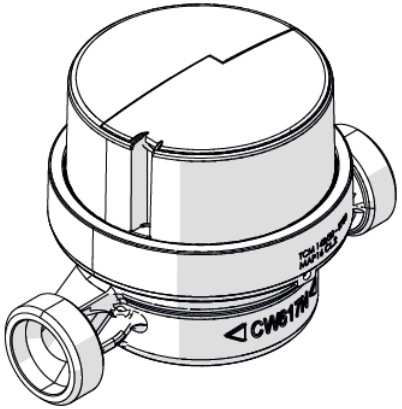
MADDALENA S.p.A.
Via G.B. Maddalena 2/4 33040 Povoletto (Udine)
Tel. +39 0432 634811 - www.maddalena.it

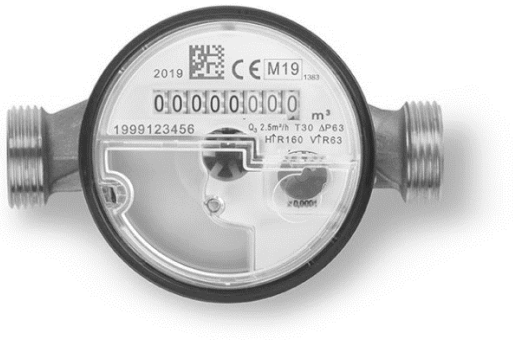
5000026C Rev. 3 04/2022
Salvo modifiche tecniche

Instrumentteam PLUS as

Descrizione

Il sensore ottico M-Bus Evo è progettato per l'interfacciamento con il contatore per acqua Maddalena CD SD PLUS EVO/ SJ EVO.

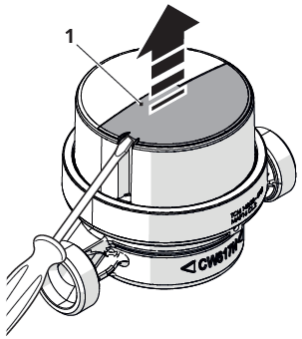
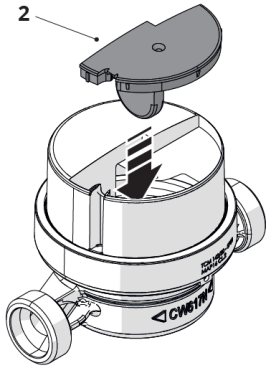
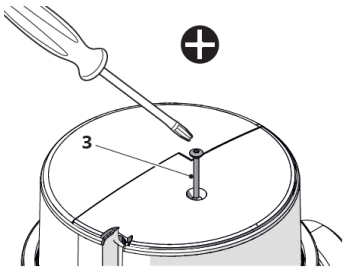
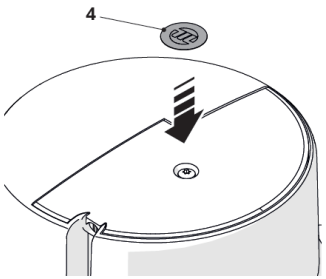




Il dispositivo rileva la rotazione della lancetta dei litri e invia la lettura a un sistema standard M-Bus.
Durante il funzionamento, il modulo è alimentato dalla rete M-Bus. Una batteria integrata ne garantisce il funzionamento anche durante la disconnessione temporanea dalla rete M-Bus.

Il sensore è compatibile anche con altri contatori della serie Modularis previa verifica di compatibilità.

Istruzioni di installazione

1	2
Rimuovere il coperchio trasparente del contatore; pulire la superficie in corrispondenza della lancetta se necessario. 	Inserire il sensore nella sede premendo fino a livello della superficie della calotta. 
3	**4**
Serrare la vite. 	Sigillare la vite con l'etichetta fornita. 

Collegamento alla rete M-Bus

Il modulo viene fornito disattivato. Per attivarlo è sufficiente collegare i fili alla rete M-Bus. Una volta effettuato il collegamento, attendere qualche giro della lancetta dei litri prima dell'avvio del conteggio (autotaratura).

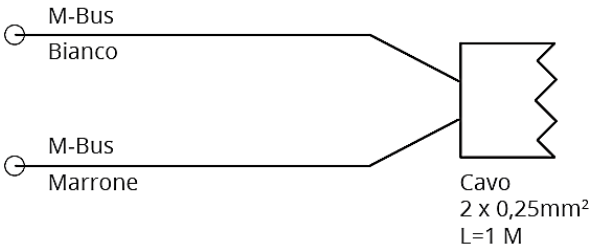
Programmazione

La programmazione si effettua tramite i software MBus Tool (www.maddalena.it) o MBConf (www.relay.de).

Parametri di default:

- Baud rate: 2400
- Indirizzo primario: 0
- Medium: water
- Lettura iniziale: 0
- Lettura periodica: primo giorno del mese

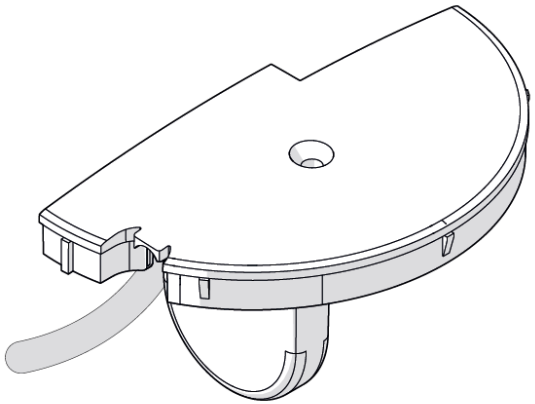
Schema collegamenti



Dati tecnici

- Sensore elettronico di tipo ottico immerso in resina
- Grado di protezione: IP68
- Uscite: M-Bus standard (EN 13757)
- Fattore impulsi: 1 impulso = 1 litro, max: 2 imp/sec
  (max 10 imp/sec per versione Q_3>4m^3/h)
- Allarmi gestiti: presunta perdita, reflusso, nessun consumo
- Temperatura d'esercizio: -10 °C ÷ +55 °C
- Temperatura di immagazzinaggio: -20 °C ÷ +70 °C
- Durata della batteria con alimentazione M-Bus: fino a 12 anni
- Durata della batteria senza alimentazione M-Bus: 18 mesi
  (6 mesi per versione Q_3>4m^3/h)
- Norme di riferimento: EN 61000, EN 14154-3, EN 13757-2 e 3

M-Bus Evo
Optical sensor kit with M-Bus output
Fitting instructions



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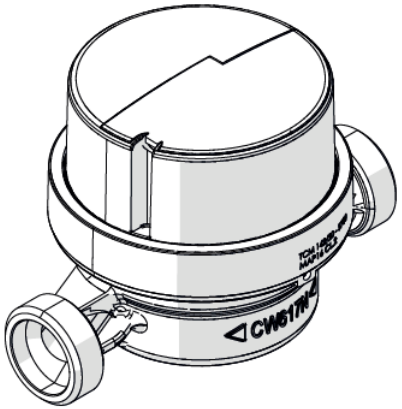
5000026C Rev. 3 04/2022
Subject to technical change

Description

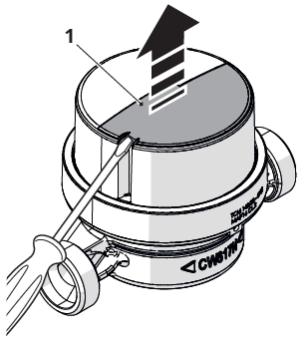
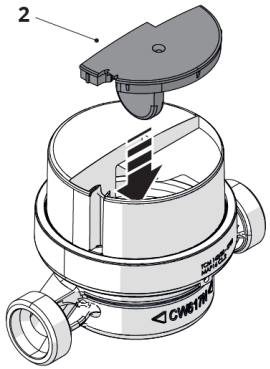
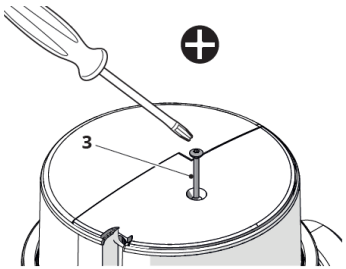
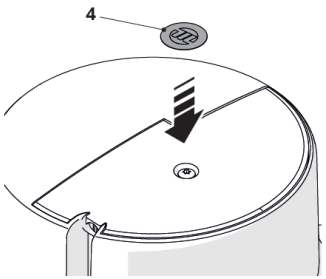
The M-Bus Evo optical sensor is designed for usage with Maddalena CD SD PLUS EVO/ SJ EVO water meters.



The device detects the revolutions of the litre pointer. The reading is then sent to a standard M-Bus system.
During operation, the module is supplied with power by the M-Bus network. A built-in battery provides power supply when the meter is temporarily not connected to the M-Bus network.

The sensor is also suitable for usage with the meters of the Modularis series. Please check for compatibility with your meter.

Fitting instructions

1	2
Detach the transparent lid from the meter; if necessary, clean the surface over the pointer. 	Fit the sensor. Press until it is even with the cover surface. 
3	4
Tighten the screw. 	Seal the screw with the label provided. 

Connection to the M-Bus network

The device is deactivated upon delivery. Activation is accomplished by connecting the wires to the M-Bus network. After connection, allow a few revolutions of the pointer before it starts counting (self-calibration).

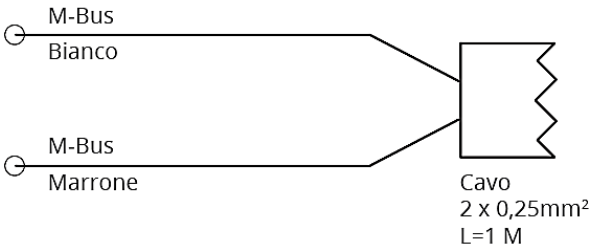
Configuration

The device is configured via the MBus Tool software (www.maddalena.it) or the MBConf software (www.relay.de).

Default settings:

- Baud rate: 2400
- Primary address: 0
- Medium: water
- Initial reading: 0
- Periodic reading: first day of the month

Cable connections



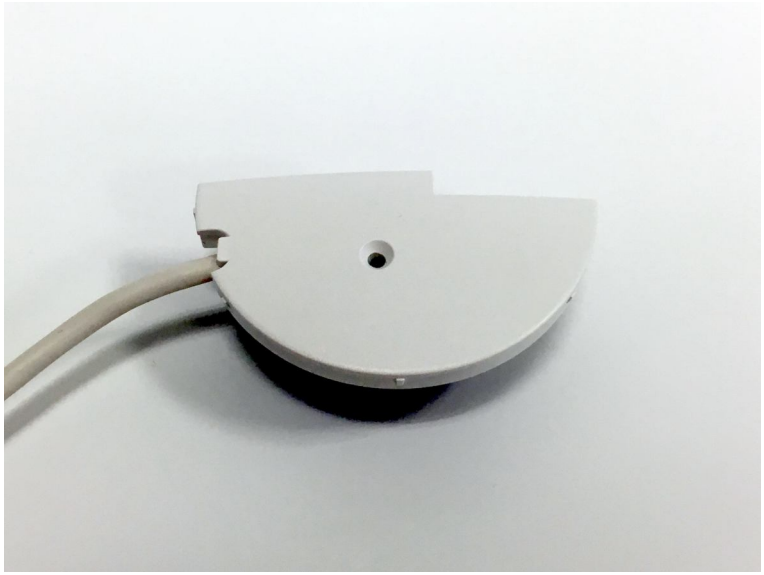
Technical specifications

- Electronic sensor encapsulated in potting compound
- Protection rating: IP68
- Pulse outputs: M-Bus (EN 13757)
- Pulse ratio: 1 pulse = 1 litre, max: 2 pulse/sec
  (max. 10 pulse/sec for version Q3>4m3/h)
- Alarms: suspected leak, backflow, no consumption
- Operating temperature: -10 °C ÷ +55 °C
- Storage temperature: -20 °C ÷ +70 °C
- Battery service life with M-Bus power supply: up to 12 years
- Battery life without M-Bus power: 18 months
  (6 months for version Q3>4m3/h)
- Reference standards: EN 61000, EN 14154-3, EN 13757-2 and 3

M-Bus Evo

Kit de capteur optique avec sortie M-Bus

Instructions d'installation



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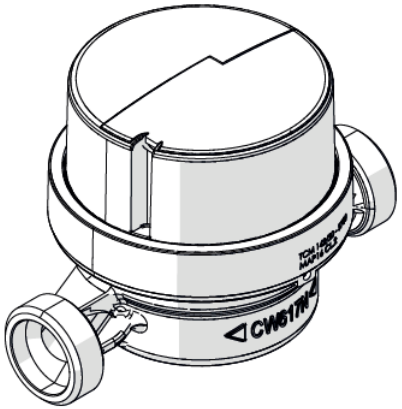
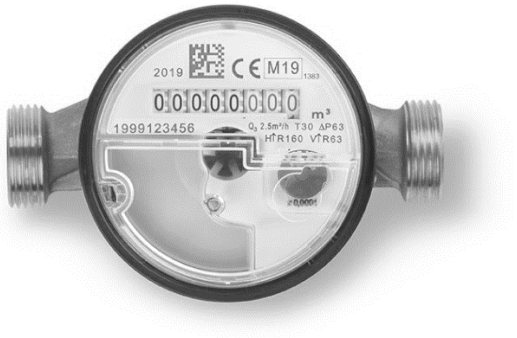
Sous réserve de modifications techniques

Description

Le capteur optique M-Bus Evo est conçu pour l'interfaçage avec le compteur d'eau Maddalena CD SD PLUS EVO/ SJ EVO.

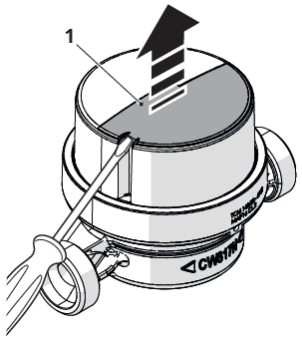
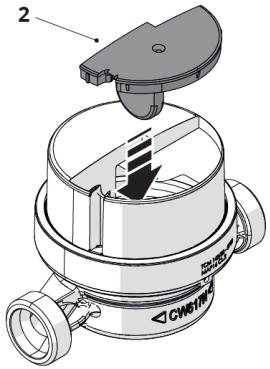
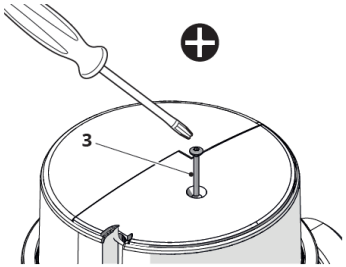
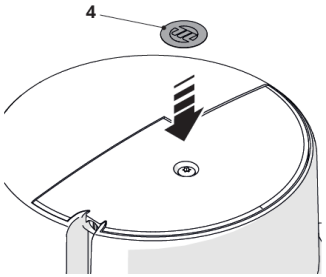




L'appareil détecte la rotation de l'aiguille marquant les litres puis envoie la lecture vers un système standard M-Bus.
Durant le fonctionnement, le module est alimenté par le réseau M-Bus. Une batterie intégrée en garantit le bon fonctionnement, même lors de la déconnexion temporaire du réseau M-Bus.

Le capteur est également compatible avec les autres compteurs de la série Modularis après avoir vérifié la compatibilité.

Instructions d'installation

1	2
Retirer le couvercle transparent du compteur; nettoyer la surface à l'emplacement où se trouve l'aiguille le cas échéant. 	Insérer le capteur dans le logement prévu à cet effet en appuyant jusqu'au niveau de la surface de la calotte. 
3	4
Serrer la vis. 	Sceller la vis avec l'étiquette fournie. 

Connexion au réseau M-Bus

Le module est fourni désactivé. Pour activer ce dernier, il suffit de raccorder les fils au réseau M-Bus. Une fois la connexion effectuée, attendre que l'aiguille marquant les litres effectue quelques tours avant le démarrage du comptage (auto-étalonnage).

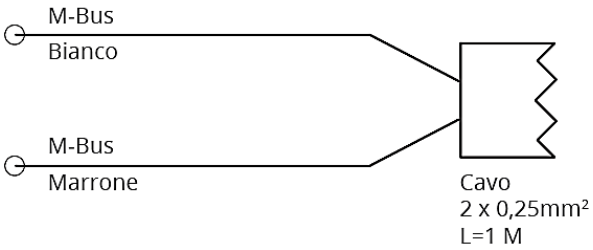
Programmation

La programmation s'effectue par l'intermédiaire des logiciels MBus Tool (www.maddalena.it) ou MBConf (www.relay.de).

Paramètres par défaut:

- Débit en bauds: 2400
- Adresse primaire: 0
- Medium: water (Moyenne: eau)
- Lecture initiale: 0
- Lecture périodique: premier jour du mois

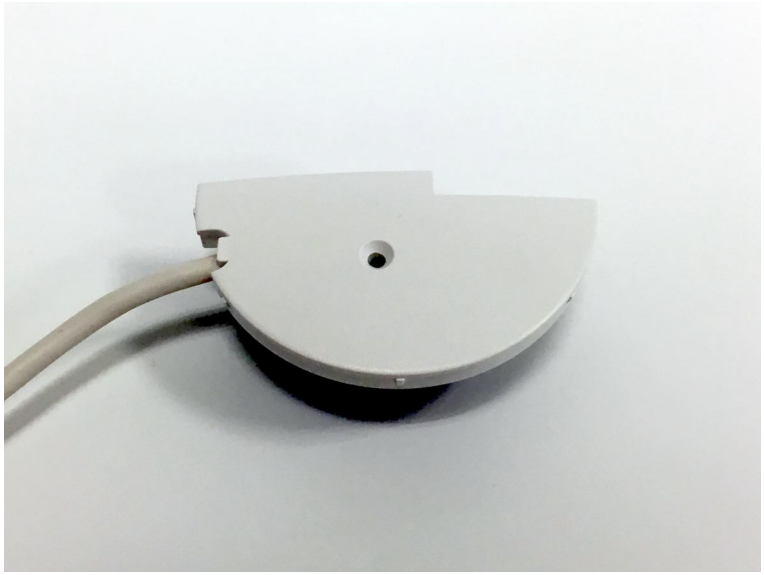
Schéma des connexions



Données techniques

- Capteur électronique de type optique immergé dans de la résine
- Degré de protection: IP68
- Sorties: M-Bus standard (EN 13757)
- Facteur impulsions : 1 impulsion = 1 litre, max : 2 imp/s
  (max. 10 imp/s pour version Q3>4 m³/h)
- Alarmes gérées: perte présumée, refoulement, aucune consommation
- Température de service -10 °C ÷ +55 °C
- Température de stockage -20 °C ÷ +70 °C
- Autonomie de la batterie alimentée par M-Bus: jusqu'à 12 ans
- Autonomie de la batterie sans alimentation M-Bus : 18 mois
  (6 mois pour version Q3>4 m³/h)
- Normes de référence: EN 61000, EN 14154-3, EN 13757-2 et 3

M-Bus Evo
Optische Sensorik-Einheit mit M-Bus-Ausgang
Installationsanleitung



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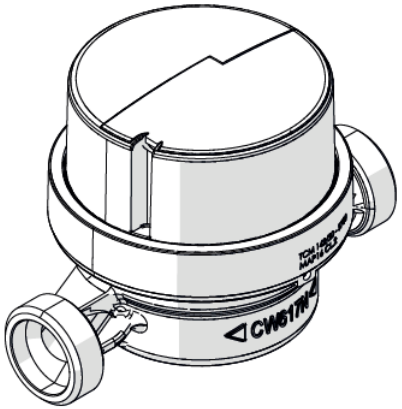
Technische Änderungen vorbehalten

Beschreibung

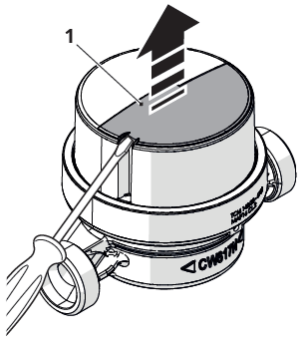
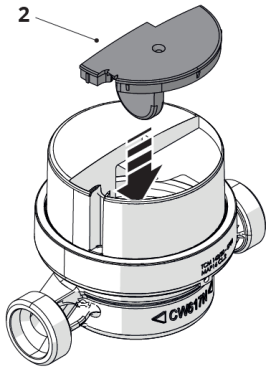
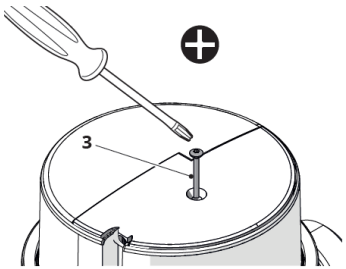
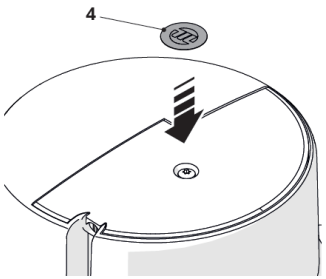
Der optische M-Bus Evo Sensor ist darauf abgestimmt, mit dem Maddalena SD PLUS EVO CD/ SJ EVO Wasserzähler verbunden zu werden.



Das Gerät erfasst die Drehbewegung des Literzeigers und sendet das Leseergebnis an ein M-Bus-Standard-System.
Während des Betriebs wird das Modul über das M-Bus-Netzwerk mit Strom versorgt. Ein integrierter Akku sorgt für einen unterbrechungsfreien Betrieb während der vorübergehenden Trennung vom M-Bus-Netzwerk.

Der Sensor ist auch kompatibel mit anderen Zählern aus der Modularis-Serie; eine vorherige Kompatibilitätsprüfung ist empfehlenswert.

Installationsanleitung

1	2
Die transparente Abdeckung des Zählers entfernen; die Oberfläche über dem Zeiger reinigen, falls nötig. 	Den Sensor an der vorgesehenen Stelle einsetzen und bis auf die Höhe der Schutzkappenoberfläche drücken. 
3	4
Schraube anziehen. 	Die Schraube mit dem gelieferten Etikett versiegeln. 

Anschluss an das M-Bus-Netzwerk

Die Einheit wird deaktiviert geliefert. Um sie zu aktivieren, einfach die Drähte an das M-Bus-Netzwerk anschließen. Wenn der Anschluss hergestellt ist, einige Drehbewegungen des Zeigers abwarten, bevor die Zählung (Selbstkalibrierung) aktiviert wird.

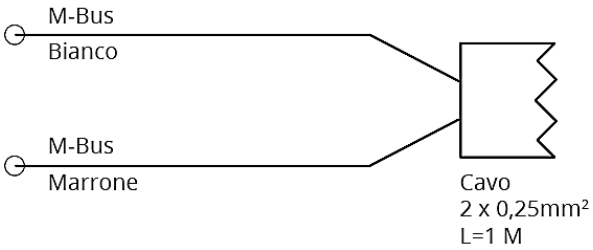
Programmierung

Die Programmierung erfolgt über die MBus Tool software (www.maddalena.it) oder MBConf (www.relay.de).

Standardparameter:

- Baudrate: 2400
- Primäre Adresse: 0
- Medium: Wasser
- Ausgangswert: 0
- Periodisches Ablesen: erster Tag des Monats

Schaltplan



Technische Daten

- In Harz eingegossener optoelektronischer Sensor
- Schutzart: IP68
- Ausgänge: M-Bus-Standard (EN 13757)
- Impulsfaktor: 1 Impuls = 1 Liter, max.: 2 Imp/Sek
  (max. 10 Imp/Sek in der Ausführung Q3>4m3/h)
- Fehlermeldungen: mögliche Leckage, Rückfluss, kein Verbrauch
- Betriebstemperatur: -10 °C bis +55 °C
- Lagertemperatur: -20 °C bis +70 °C
- Akkulaufzeit mit M-Bus-Anschluss: bis 12 Jahre
- Lebensdauer der Batterie ohne M-Bus-Einspeisung: 18 Monate
  (6 Monate in der Ausführung Q3>4m3/h)
- Referenzstandards: EN 61000, EN 14154-3, EN 13757-2 und 3

Instrumentteam PLUS as