Water



ERH

Electronic Register - Hybrid

Your benefits

- Enhanced Data:
  Provides consistent, secure, high-resolution data for water consumption to help detect leaks and backflow to avoid potential revenue loss
- Reliable Design:
  Constructed with the highest-grade materials the register is ideally suited to challenging submetering applications
- Increased Security:
  Built with tamper-resistant features such as magnetic tamper indicators and bestin-class Advanced Encryption Standards to provide submetering professionals with peace of mind
- NFC Tap and go:
  Simple commissioning process
- Several critical event flags:
  Improved operational efficiency

Properties

- Fully electronic, solid-state register with no moving parts
- Ultra LowPower magnet field detection
- Integrated NFC configuration interface
- Data security via AES-128-bit end-to-end encryption over 2 independent security layers
- Integrated LoRaWANTM wireless communication transceiver
- Communication status display
- Display of alarms with respective alarm codes
- Typical battery lifetime up to 10 years
- 18 monthly volume key date values
- Different units and resolutions in display representable
- ADR (adaptive data rate) support gives higher transmission intervals with consistent battery life
- FCC ID approval

Applications

- Wireless connectivity with Truety by means of LoRaWAN head-end systems approved by GWF
- Provides superior water supply insight - encoded billing data and critical events
- Use with all GWF multijet and singlejet water meters

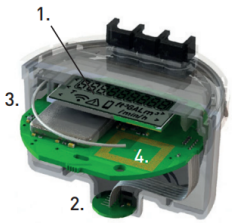
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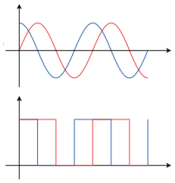
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Electronic Register - Hybrid - Technology



1. LCD
2. Sensors
3. Communication antenna
4. NFC interface

Signal Processing:



- The ERH register is designed to detect the rotations of either two or four-pole magnets. Its electronic filter protects it from external magnetic disturbances, while two sensors filter and digitally convert the magnetic field.
- A highly efficient microcontroller is responsible for determining the rate and direction of flow while also having the capability to detect a range of events and alarms, such as backflow. Furthermore, the LCD display allows for maximum flexibility when viewing the measurement data.
- Lastly, the ERH register is fitted with an energysaving, access-protected NFC interface for parameterization and activation, as well as a wireless communication transceiver for LoRaWAN 915 MHz.

Technical Data

Ambient conditions	
Operational temperature	+ 41 °F to + 149 °F
Transport & Storage temperature	-4 °F to + 158 °F
Register protection class	IP67

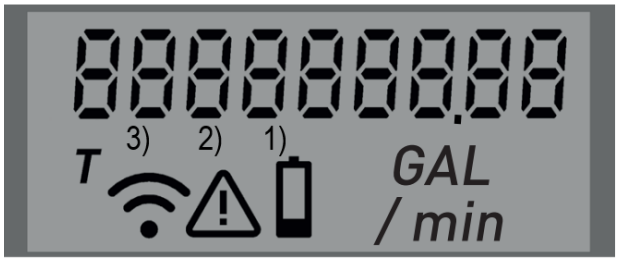
Power supply	
Lithium/Mangan battery (not replaceable)	3 V DC
Typical battery lifetime (depending on environment and configuration conditions)	Up to 10 years

Approval	
FCC ID: 2A4F7-ERH	-

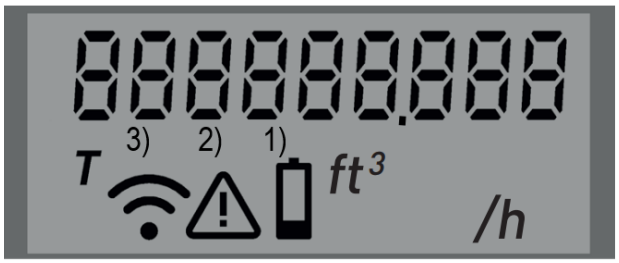
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Display	
Volume unit	GAL or ft^3
LCD	9 digits
Volume resolution	0.01 GAL or 0.001 ft^3
Flow rate unit	GAL/min or ft^3 /h
Test bench mode	T
Low battery Icon	1)
Alarm Icon	2)
Radio indicator (On/Off) and LoRaWAN connectivity status	3)

GAL



ft3



LoRaWAN specifications	
Regional parameters (Frequency band)	US902-928 MHz ISM Band (902 - 928 MHz)
Transfer protocol (payload)	GWF specific
Radiated power	max. 20 dBm (100 mW)
Class	A
ADR (Adaptive data rate)	Yes
Activation type	OTAA

Information data package	
DevEUI	70B3D538700000AB
Meter manufacturer	GWF
Medium	Water
Meter S/N	23132356
Absolute meter reading (down to 15 min values)	359.76 GAL
Remaining battery life	Years
Alarms	Meter alarms, Low Battery, Burst pipe, Potential leak, Backflow, No Usage, Max. flow rate exceeded, Min./ Max. temperature

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