To make the most of their resources, today's natural gas providers need accurate, reliable metering to measure usage, and they need to operate as efficiently as possible. The result of more than 100 years of diaphragm metering experience combined with patented Cyble communications technology, Itron's “c” series meters provide high-quality measurement and communications flexibility for today and tomorrow.

**KEY BENEFITS**

- Proven technology - over 4.8 million devices installed worldwide, with a maximum variance of 200 liters per 4,000,000 liters (99.996%)
- Compliant with international and local regulations
HIGH RELIABILITY

With the unique, patented principle of Cyble technology, the meter index and the remote index are always identical. The integrity and the reliability of this data is key for use in billing applications:

» The register is equipped with a non magnetic target. Hence, magnetic tampering is impossible and the meter is insensitive to 2.5 Tesla (non-magnetic metal plated sector)

» The Cyble target does not influence the metrology of the meter. The register is insensitive to vibrations (to send an output signal, a complete revolution must be completed).

TARGET DETECTION

Cyble MIU measures the dampening of the Electromagnetic field:

If there is no Target in front of the coils of the Cyble MIU, the generated oscillation is self damped within a time $T$. When the Target is in front of a coil of the Cyble MIU, the induction creates a surface current in the Target (called an eddy current) which has the effect of opposing the induction and therefore damps the oscillation faster, within time $T' < T$.

**Building Blocks of Itron’s ECO series**

The “c” series is part of Itron’s complete “eco” portfolio which addresses today’s and future energy resource and environmental challenges.

**Key Advantages of “c” series**

» Ready for smart metering
» Can be retrofitted on site without recalibration of meter
» Reliability of an electronic switch (no wear or bouncing)
» Principle proven on the field with 20 years experience
» Pre-equipment is immune to magnetic tampering

**Cyble Sensor ATEX**

Cyble Sensor generates pulses similar to the one generated by Reed Relays. The main differences that the pulses coming from Cyble Sensor are:

» Electronically generated (hence perfectly squared shape)
» Not sensitive to magnets (Reed Relays generate pulses with magnets turning under a mechanical relay)
» Can take into account the direction of the flow (backflows).
» Up to 4 signals can be created including flow direction and cable cut (depending on the version).

**“c” series portfolio**

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<tr>
<td>M-Bus Cyble</td>
<td>92x57x35</td>
<td>Cyble module with M-Bus protocol to facilitate the integration of Itron meters into an M-Bus network.</td>
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<tr>
<td>Cyble Sensor ATEX</td>
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<tr>
<td>M-Bus Cyble OMS</td>
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<td>Cyble module with wired communication interface and OMS specification.</td>
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<td>Cyble module with radian protocol and AnyQuest Enhanced features for mobile meter reading.</td>
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<tr>
<td></td>
<td>10000m³/h</td>
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</tbody>
</table>

For more information on the meters with Cyble totaliser, contact your local sales representative.
ASSOCIATED SYSTEMS

Mobile Meter Reading - AnyQuest

AnyQuest is a mobile data collection solution comprised of multiple components working together to create and collect enhanced data. It includes high performance radio modules, rugged handheld terminals, user-friendly mobile reading software and host software to transfer data from and to third party systems.

Fixed Network Application - EverBlu

EverBlu is more than just an Automatic Meter Reading system. It opens the way for a wide range of applications in the fields of customer relationship management, distribution asset optimization, and demand-side management.

Itron offers a wireless mesh point-to-multipoint communication system adapted to all kinds of urban and suburban environments. It is suitable for multi-energy applications involving water, gas and heat metering.

Advanced wireless meter modules create accurate data. The system automatically collects these data and is designed with automatic node path reconfiguration to achieve maximum reliability. Hence providing energy and water providers with comprehensive valuable information.

Advanced Meter Infrastructure

Wired and wireless Fixed Network System

M-Bus, specified in a European norm, has become the system of choice when building small scale network systems for all meter types (water, gas, heat and electricity).

Used by utilities as well as service companies, Itron M-Bus Cyble modules offer the best of M-Bus standard with an user-friendly interface. It provides access to the advanced data collected from Itron meters.

CYBLE MODULES

AnyQuest Cyble

The Itron AnyQuest Cyble radio module offers superior reading distance and enhanced data captures. These additional data enable the utility to improve productivity and bring extra services to customers.

EverBlu Cyble

The EverBlu Cyble is compatible with EverBlu fixed network for daily data transmission or on-request meter reads. In gas applications, EverBlu Cyble transmits not only the 24 hourly meter reading indexes, but also advanced information such as tampering alarms, etc. Alternatively, its data can also be collected using AnyQuest mobile reading system. Thus allowing upgradability from one system to the other.

M-Bus Cyble

Cyble communication modules have been designed to meet the requirements of all gas management utilities wanting to read their gas meters remotely. The Itron Cyble M-Bus module offers enhanced data such as 13 fixed date readings, back flow and leakage detection. Cyble M-Bus facilitates the integration of Itron gas meters into an M-Bus network.

wM-Bus Cyble OMS

The wireless M-Bus Cyble OMS collects data from metering devices for electricity and gas as well as heat and water consumption. It can communicate to or with a MUC via one of the primary communication interfaces to transfer subsets of this data to the ‘AMM back office systems’ for billing, servicing or other purposes.
AVAILABLE CYBLE METERS

Residential

GALLUS steel casing version
GALLUS alu casing version
RF1
ACD G1.6 steel casing version

Commercial & Industrial

ACD G10-G16
G25-G100
Delta Rotary Meters
MZ Quantometers
Fluxi 2000/TZ
Turbine Meter Range

Smart Meters “c” series

The Itron Smart “c” series meters are the result of combining more than 100 years of diaphragm meter engineering experience with the latest high quality electronic and communication technologies.

Our company is the world’s leading provider of smart metering, data collection and utility software systems, with over 8,000 utilities worldwide relying on our technology to optimize the delivery and use of energy and water.

To realize your smarter energy and water future, start here: www.itron.com

For more information, contact your local sales representative or agency:

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