

# Cyble™ Sensor ATEX

## A Smart Pulse Transmitter for Gas Meters

The Cyble Sensor ATEX has been designed specifically for gas utilities needing to connect electronic devices with a LF pulse input, such as volume converters to a gas meter. It can be mounted at any time onto any Itron meter equipped with an Itron universal totaliser. It provides a completely flexible solution for current or future remote reading technologies.

### Principle of Operation

The Cyble Sensor ATEX works as follows:

- > A Cyble target is fitted as a standard into the Itron universal totaliser. It rotates proportionally to the registered volume of gas.
- > 3 coils fitted in the Cyble Sensor ATEX detect the rotation of the target by measuring the change of induction in front of each coil.
- > An electronic board records the complete rotation of the target. This detects and compensates for any backflows: the meter index and remote register are identical. When a complete rotation is validated, a pulse is sent out at the output of the Sensor.

### Applications

The Cyble Sensor ATEX can be mounted onto the Itron Fluxi 2000/TZ, Delta and MZ meters.

It can be used to ensure reliable transmission of the non-corrected volume from the meter to the Itron Corus volume converter or to any volume converter using a standard low frequency input.

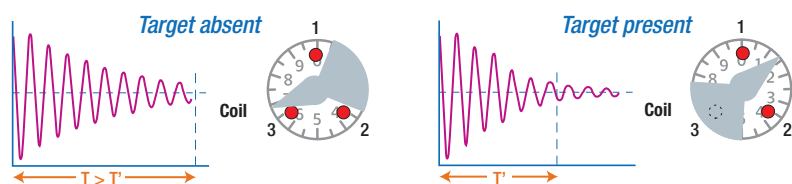
The Cyble M-Bus, RF and Coder presented are also available for other applications.

They can also be used to ensure a reliable remote reading of the meter.



> Universal totaliser fitted as standard with the Cyble target

- > High reliability for remote reading.
- > Magnetic tampering is impossible.
- > Easily retrofittable (no breaking of seals) onto meters equipped with the Itron universal totaliser.
- > 10 years Itron Cyble experience; 1 million installed onto Itron water meters (as of September 2006).



### Technical Specifications

Intrinsic safety approval	L.C.I.E. 06 ATEX 6044 X
Intrinsic safety level	⊕ II 1 G Ex ia IIC T3
Signal output	- $U_i \leq 15$ Volt - $i_i \leq 900$ mA - No polarisation to be observed: wires white and yellow - Type dry contact equivalent - Anti-tampering (AT): wires grey and green.
Cable length	5 m
Power supply	Lithium battery - not replaceable Life time > 12 years (in normal applications within the specified temperature range)
Working temperature	-25°C to +55°C
Storage temperature	-25°C to +55°C
Protection	IP68
E.M.C standards	EN 61000-6-2, EN 61000-6-3, EN 60947-5-6



*Others types of Cyble sensors available for use in non-ATEX areas.*

**Cyble Sensor 5 wires:**

it provides the same functionalities as the Cyble Sensor ATEX and additionally has:

- 1 signal for the flow direction
- 1 pulse output without backflow compensation

**Cyble M-Bus:**

it can be used to integrate the Itron gas meters into a M-Bus network. In addition to the meter reading, Cyble M-Bus also provides smart functions such as database management. It provides all relevant data compliant to EN 1434.

**Cyble RF:**

it provides all benefits of a wireless solution; higher data acquisition speed and complete accessibility to all meters even if the customer is absent.

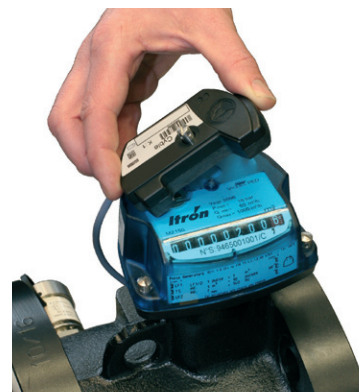
Characteristics: Protocol: RADIAN  
Frequency carrier: 433.82 Mhz

*For more details about these 3 Cyble Sensors, please consult the relevant brochures produced by the Itron Water division online at [www.itron.com](http://www.itron.com)*



> *Fluxi 2000/TZ fitted with the universal totaliser and the Cyble Sensor ATEX*

> *Installation of the Cyble Sensor ATEX onto the meter:*



1) *Mounting*



2) *Screwing*



3) *Sealing*

**About Itron Inc.**

*Itron Inc. is a leading technology provider to the global energy and water industries. Our company is the world's leading provider of metering, data collection and utility software solutions, with nearly 8,000 utilities worldwide relying on our technology to optimize the delivery and use of energy and water. Our products include electricity, gas and water meters, data collection and communication systems, including automated meter reading (AMR) and advanced metering infrastructure (AMI); meter data management and related software applications; as well as project management, installation, and consulting services. To know more, start here: [www.itron.com](http://www.itron.com)*

*For more information, contact your local sales representative or agency.*



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