Intelis™ gFlex™

Ultrasonic Smart Gas Meter for prepayment and post-payment systems - NFC and STS with eTC

Itron's Intelis™ gFlex™ is the reliable, secure and accurate smart metering solution helping utilities improve their cash flow by offering prepayment and-post payment capabilities without needing to invest in a communication infrastructure. Integrated into an easy-to-deploy SaaS prepayment solution, Intelis gFlex helps utilities ensure their revenue and reduce financial exposure.

KEY BENEFITS

Ensures energy payment to utilities

With Intelis™ gFlex™, end-users prepay the energy they consume, securing upfront revenue for utility companies. Combining different payment modes and credit loading Intelis gFlex improves debt management and prevention, enhances cash conversion cycle and increases customer satisfaction.

Makes gas networks easy to manage

Intelis™ gFlex™ simplifies the day-to-day management of the gas network. Leveraging ultrasonic technology, the Intelis platform requires less on-site maintenance while maintaining a higher level of accuracy over time.

Enhances customer experience

Intelis™ gFlex™ offers customers the flexibility to purchase the amount of Gas they need and choose the payment channel that is most convenient for them. End-users can then manage their budget more effectively, getting their consumption data delivered in real-time via text, mobile applications, or email.

ITRON'S SMART PREPAYMENT SOLUTION

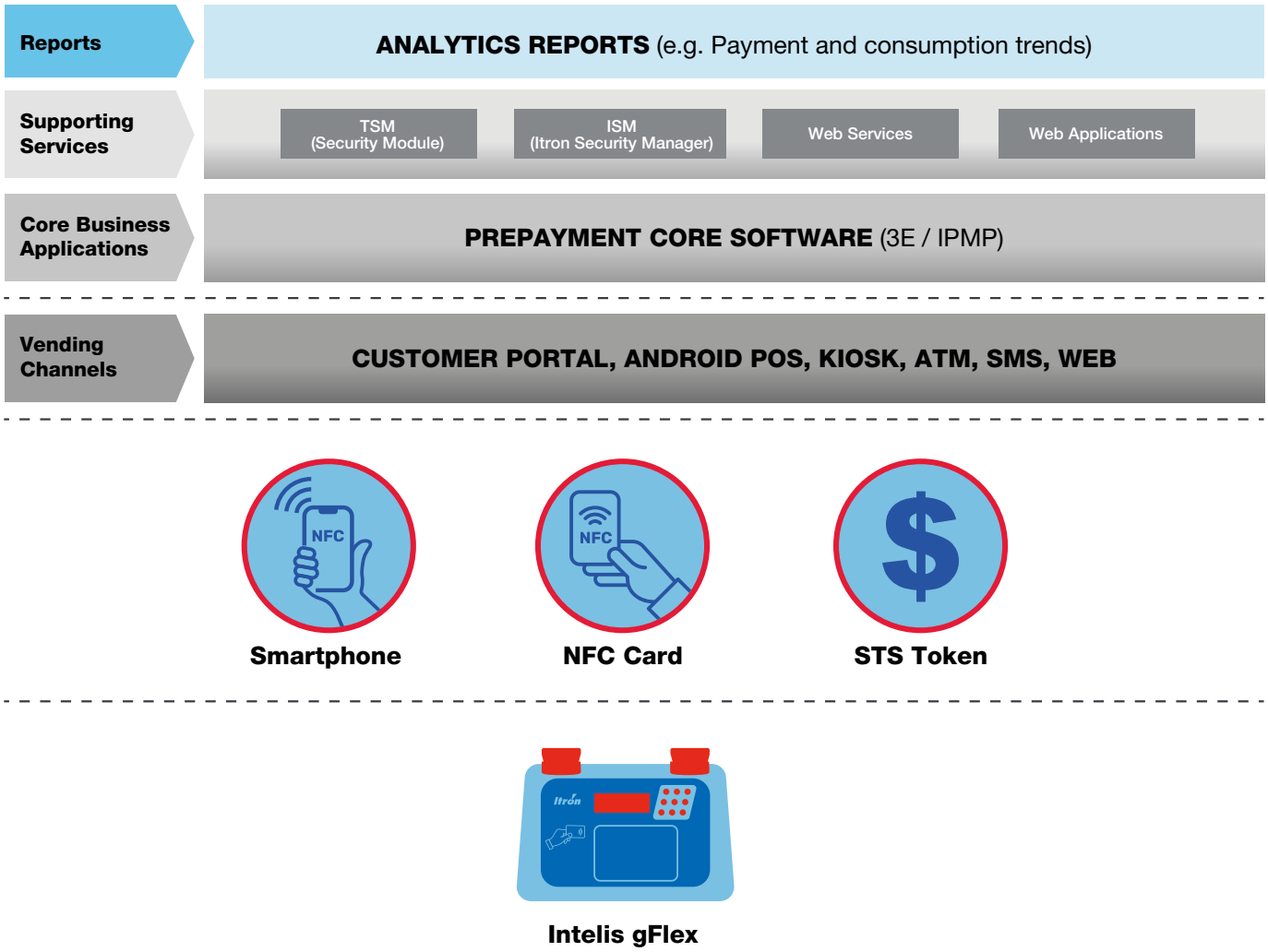
Intelis™ gFlex™ is fully integrated in Itron's Prepayment Management Platform (IPMP) multi-resource revenue collection system for efficient revenue collection, enhanced data capture and reporting.

- Flexible prepayment settings, pay-as-you-go or traditional prepayment
- Customer engagement functions: non-disconnection periods, self-decommissioning, emergency credit and data logging capability.
- Leak and fraud detection, overflow control and broad tariff flexibility.
- Support of multiple Point Of Sale: ATM, PC, self-service POS, customer portal on smartphone, SMS (1way).

KEY FEATURES

- Flexible credit management with Pre or Post-Payment billing mode
- Wide range of credit loading systems, STS with 12 buttons keypad and NFC (Card and Smartphone) capabilities
- Data feedback to the system without communication infrastructure (NFC based 2-way communication)
- Multiple extended features
  - Electronic Temperature Compensation (optional)
  - Internal valve
  - Field swappable battery
  - Static metrology
  - Multiple fraud detection

ITRON'S IPMP SOLUTION ARCHITECTURE



THE SYSTEM

The NFC interface, accessible through a Smart Card (optionally delivered with the meter) or a smart phone provides low-cost, reliable and secure two-way communication between the point of sale (ATM, PC, self-service POS, customer portal on smartphone, SMS - 1way) and the installed meter.

The revenue collection engine offers innovative and customer engaging functions, such as non-disconnection periods, self-decommissioning, emergency credit and data logging capability. It also provides leak and fraud detection, overflow control and broad tariff flexibility.

Data Logging

- Readings including the last 12 monthly data (1st day of each month at midnight);
- Readings including the last 8 weekly data (each Monday at midnight);
- Readings including the last 30 daily data (each day at midnight);
- Remaining battery capacity at loading time;
- Last 10 alarm/error logbook entries with timestamps;
- Last 10 valve open/close with timestamps;
- Last 10 credit loadings with timestamps.

BILLING METHODS

Itron's Smart Payment solution allows **automated data collection** at the time the consumer is toping up its energy credit. In accordance with the local regulations, the meter can be set to different billing modes:

- **Regular Prepayment:** By loading the Smart Card upfront, the consumer pays for gas provision before consuming.
- **Pay-As-You-Go:** In this typical post-payment mode, the end customer is charged for the consumed gas after a certain period based on volume or time.

SAFETY AND SECURITY

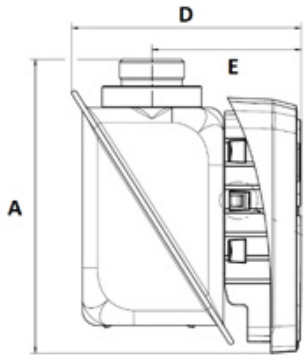
- Metrological and functional parts of the meter protected with separate seals.
- **Leak detection:** A leak test is conducted every time the gas valve opens to ensure other gas appliances have not been left on. The valve automatically closes if the installation is not tight.
- **Alarms (valve closes automatically):**
  - Open cover alarm
  - Overflow alarm
  - Backflow alarm
  - Battery low (threshold configurable)

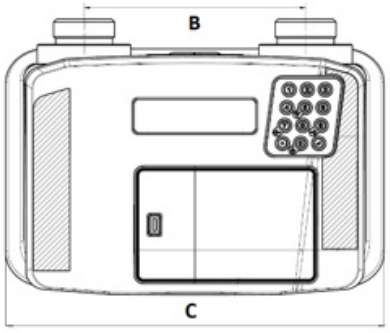
Technical Specifications

Parameter	Value
Gas type	Second Gas Family (EN 437)
Measuring range	G1.6 Qmin 0.016 m³/h Qmax 2.5 m³/h G2.5 Qmin 0.025 m³/h Qmax 4 m³/h G4 Qmin 0.04 m³/h Qmax 6 m³/h
Accuracy	Class 1.5 (EN 14236)
Standards / Directives	MID according to EN 14236:2018, ATEX, RED, ROHS, STS6
Maximum operating pressure	0.5 bar (0.1 bar for HTL version) Valve operation up to 0.2 bar
Temperature range	Operating -25°C to +55°C Storage -30°C to +70°C
Pressure drop	Less than 2 mbar
Humidity	Max 93% RH at 40°C
Ingress protection	IP54 minimum protection level (according EN60529) IP65/IP67 optional
NFC tag norm	2K cards ISO-14443
Battery	Lithium battery with 10 years average lifetime*
Display	Dot matrix
Set	Gas meter; 2 plastics caps ; NFC smart-card** ; cardboard box

* Battery life time may vary depending on usage

** NFC smart-card on-demand





ELECTRONIC TEMPERATURE COMPENSATION (OPTIONAL)

The temperature converted volume shown on the electronic index allows to bill the consumer more accurately.

AVAILABLE TOOLS

- MTT, metrology test tool to connect to test benches (NAMUR norm)
- RCT, recalibration tool (non MID) through RMA port
- FET, field engineering tool, on smartphone for meter maintenance

RELATED PRODUCTS

Itron Prepayment Management Platform (IPMP) multi-resource revenue collection system.

Dimensions

Type	size (mm)				
	A	B	C	D	E
110 mm	141±3	110	227	102.5	66.7
152.4 mm	151	152.4	188	107.2	69.8

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ITRON FRANCE
9 Rue Ampère
71000 Mâcon
France

Phone: +33 3 85 29 39 00