UniFlo Smart Gas meter

▽ **EXCELLENT ACCURACY**

▽ **AES DATA ENCRYPTION**

▽ **SMETS COMPLIANT**

APPLICATION

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FEATURES

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- Excellent accuracy, using error curve correction
- Secure AMR, using AES encryption
- Datalogger for readings, alarms and events
- ZigBee RF serial data output
- Built-in valve for remotely closing and again safe opening of gas flow
- Calculated battery lifetime min. 15 years
- Back light display, with Menu Function
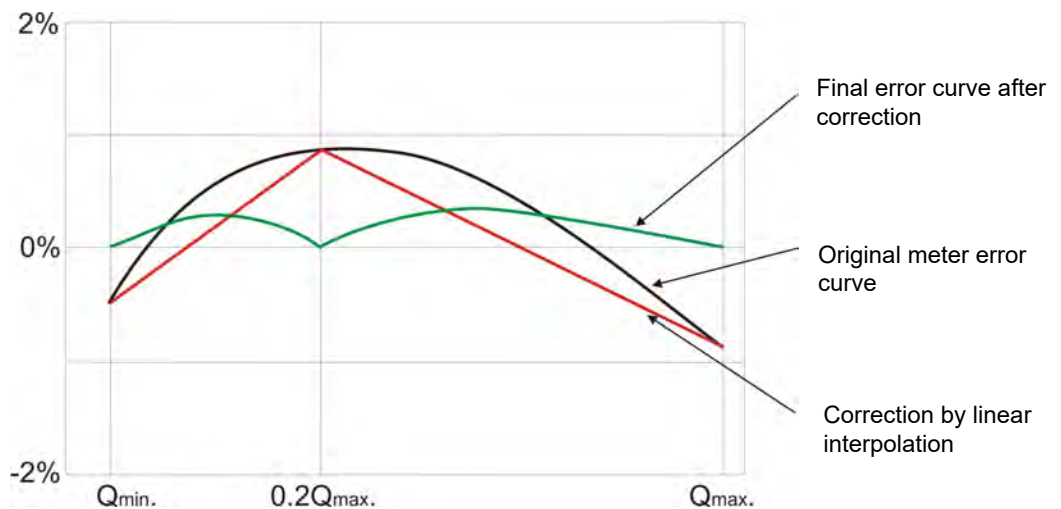- ATEX approved for zone 0/1

COMMUNICATION

- Integrated ZigBee radio, 2.4MHz.
- Communication protocol according to SEP 1.2, offering full exchange ability.
- Support Firmware Upgrade Over The Air (OTA)
- Optical interface (IEC 62056-21) for local maintenance. (disabled while in the field)
- Optimal security using AES encryption with symmetric encryption keys.
- Large experience in supplying customized encryption key files, using authorized personal and safe procedures for transfer to Utilities.

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UniFlo Smart Gas Meter

EXCELLENT ACCURACY

The initial error curve of the diaphragm gas-meter is introduced into the micro-processor in the index at 3 flows, Qmin, 0,2 Qmax and Qmax. With the High Frequency "Gray-Code" detection, flow is calculated and by linear interpolation and the error curve of measuring unit corrected to approx. 0.1%.

TIME OF USE

The meter supports TOU with up to 4 tariffs. Energy price is depending on the time of the use. Tariff switching is performed with advanced calendar function. For each tariff, consumption will be available as m3, kWh and £.

BLOCK TARIFF

When Block tariff function is activated, the price of energy will be depending on the actual half-hourly consumption. Up to 4 rates are supported.

CREDIT PREPAYMENT

The meter can be switched between Credit mode and Prepayment mode. Switching may be performed immediately or at a predefined time. In prepayment mode the meter supports Emergency Credit, Credit from Head End system and local Credit by input of UTRN code.

LOGS

The G4SZV-1 electronic index has an auto diagnostic system, monitoring the conditions of the meter: Alarm Logs and Alerts. All Logs and Alerts are according to SMEST2 GBCS specification

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USER-FRIENDLY INDEX

Symbol	Meaning	Symbol	Meaning
↓	Scroll down	↑	Scroll up
←	Scroll left	→	Scroll right
↵	Select, Acknowledge	☰	Main menu

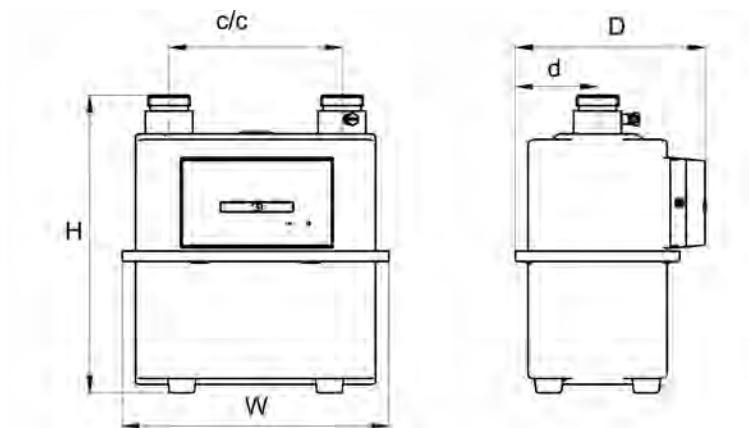Symbols shown at the top of the display when either volume or balance screen is displayed.

	Meaning	Required action
⚠	Alarm	Go to the menu, select Alarms + Actual alarms, and you will see the alarm
O	Valve open	No action
B	Valve busy (opening or closing)	Observe if the gas is disabled
S	Valve shut	When valve is closed, gas is disabled. Contact gas utility, and press the button when the meter requires it.
	Low Battery	Battery must be exchanged within 30 days.
EC	Emergency Credit Available	Use Menu to accept Emergency Credit to avoid disconnection
EC	Emergency Credit in USE	Emergency Credit is being used
LC	Low Credit	Top up, to avoid incurring Debt or being cut off
ND	Non-Disconnect	The meter is OUT OF CREDIT, and would have disconnected but will remain on supply, because of the Non-Disconnect period
✉	Message waiting (from Utility)	Go to menu + Message, and scroll through the incoming messages. Acknowledge with ↵
▁▃▅▇	Paired to Communication Hub	All ok. If the symbol is not present, there is no connection to the HAN. The symbol is dynamic and will indicate signal strength, just like a mobile phone.
ℹ	Information waiting (from gas meter)	Go to menu + Information, and scroll through the incoming Information. Acknowledge with by pressing button below the i Symbol

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UniFlo Smart Gas Meter

MECHANICAL CONNECTIONS

Two-pipe

Model	W (mm)	C (mm)	D (mm)	d (mm)	H (mm)	Connections
UniFlo G4	235	152	167	73	262	BS1"

PRESSURE LOSS

Model	$Q_{max.}$ m³/h	$Q_{min.}$ m³/h	P_{max}[1] bar	ΔP[1] mbar	V_{cyc} dm³	TC[2]
UniFlo G4	6	0.04	0,5	1.6	1.2	X

1) Air at Qmax
2) Options

BATTERY LIFETIME

~15 years normal operationÁ

TEMPERATURE RANGE

T_{amb}: -25…+55°C T_{gas}: -25…+55°C
T_{stor} : -40…+60°C   RH : < 93%, condensing

DISPLAY

Graphical display, fixed, 8 digits
Resolution: 3 decimals

ENCLOSURE

IP 54

CONFORMITY WITH

EN1359:1998 + A1:2006
SMETS(UK)
EN12405-1:2006 (electronic index)
OIML D11(EMC) (electronic index)
Directive 2014/34/EU
EAN128 (bar code)

APPROVALS

MID   DK-0200-MI002-013

ATEX   (Ex) II 1/2G Ex ia/ib IIB T3
             TÜV 13 ATEX 118318 X

RED   (2014/53/EU)

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