Qmin: 0.04m3/h
Qmax: 6m3/h
Qt: 0.6m3/h
Pmax: 0.2bar
Gas Type: H,L & E
Class1.5, M1/E2
Tm: -25°C - +60°C
1CML 18ATEX 4127X

II 3G
Ex ic IIA T1 Gc

CE   M25

ECOMETER G4-U

E0000001
Designed by EDMP in UAE Y2026

GAS

Ecometer G4-U
Domestic Ultrasonic Gas Meter
Smart, Accurate, Built for Utility Scale

The **EDMP Domestic Ultrasonic Gas Meter** is a next generation electronic gas meter designed for high accuracy measurement, long term stability, and smart metering applications. Using advanced ultrasonic time of flight technology, the meter ensures precise gas measurement without moving parts, delivering excellent durability and lifetime performance for modern gas utilities.

The meter supports both credit and prepayment applications, with optional integrated valve and multiple communication technologies, making it suitable for AMI and smart grid deployments across EMEA, CIS, Asia and emerging markets.

ECOMETER G4-U

Key Benefits
- No moving parts – zero mechanical wear and no calibration drift
- High metrological accuracy across wide flow range
- Long battery lifetime suitable for utility rollouts
- Robust housing for indoor and outdoor installations
- Future ready for smart gas and hydrogen blend networks

Main Technical Features
- Ultrasonic measurement principle with high resolution
- Low starting flow rate, excellent sensitivity at low flow
- Real time temperature and pressure compensation
- Range ratio up to 750:1 for wider applicability
- Supports NB IoT, LoRaWAN, Wireless M Bus, Zigbee
- Optional remote shut off valve for prepayment or safety use
- High immunity to magnetic, acoustic, and electromagnetic interference
- Integrated high precision pressure sensor

Metrology
- Accuracy Class: 1.5
- Flow Range: Typical G4
- Gas Family: H, L, E
- Measurement Principle: Ultrasonic time of flight

Environmental
- Operating Temperature: -20°C to +55°C
- Storage Temperature: -25°C to +65°C
- Humidity: Up to 95% RH (condensing)
- Protection Class: IP67

Power Supply
- Battery Type: Lithium (D Cell)
- Battery Lifetime: Up to 10-15 years* (depending on communication profile)

Display
- Large LCD display
- Back lit, menu driven interface
- 8 digit display, configurable decimals

Applications
- Residential gas metering
- Smart AMI gas networks
- Credit and prepayment systems
- Utility billing and demand analysis
- Hydrogen ready infrastructure (optional)

Certifications & Compliance
- MID – Directive 2014/32/EU
- EN 14236
- ATEX / IECEx
- RED – Directive 2014/53/EU
- RoHS and WEEE compliant

Optional Features
- Integrated shut off valve
- Prepayment functionality
- Hydrogen blend readiness
- Custom branding and faceplate design
- Market specific firmware and communication profiles
- STS compatible prepayment system OTA FW Upgrade
- Gas Family 3 (LPG -Propane/butane)

Security and Data
- Secure boot with signed firmware
- Encryption and authentication (DLMS Security Suite / TLS)
- Event logging (magnetic interference, reverse flow, cover open, tilt, ultrasonic interference)
- Anti-tamper and fraud detection positioning

Communication Options

NB-IoT | LoRaWAN | M-Bus | zigbee | LTE

(Communication technology selectable according to utility requirements)

Communication & Data Protocols

DLMS | M-Bus OMS | LwM2M

Technical Specifications

Parameters	Unit	Ecometer G4–U 110mm	Ecometer G4–U 160mm	Ecometer G4–U 250mm
Max Flow Rate (qmax)	m³/h	6	6	6
Min Flow Rate (qmin)	m³/h	0.016	0.025	0.04
Accuracy Class	–	1.5	1.5	1.5
Basic Error (qt ≤ q ≤ qmax)	%	±1.5 %	±1.5 %	±1.5 %
Basic Error (qmin ≤ q < qt)	%	±3 %	±3 %	±3 %
Working Pressure	kPa	0.5–15	0.5–15	0.5–15
Pressure Resistance	kPa	22.5	22.5	22.5
Pressure Absorption	Pa	≤200	≤200	≤200
Working Temperature	°C	−20 to +55	−20 to +55	−20 to +55
Storage Temperature	°C	−25 to +65	−25 to +65	−25 to +65
Working Humidity	%RH	≤95	≤95	≤95
Storage Humidity	%RH	≤93	≤93	≤93
Distance Between Centreline of Connection	mm	110	160	250
Connection Threads	mm	M30 X 2 (configurable to G¾ or G1)	M30 X 2 (configurable to G¾ or G1)	M30 X 2 (configurable to G¾ or G1)
Min Reading Under Test	L	0.01	0.01	0.01
Max Reading	m³	99999.999	99999.999	99999.999
Min Reading	m³	0.001	0.001	0.001
Data Memory Period	Years	>10	>10	>10
Weight	kg	1.4	1.7	1.9
Installation	–	Horizontal	Horizontal	Horizontal
Case Material	–	Steel	Steel	Steel
Lithium Battery Voltage	V	3–3.6	3–3.6	3–3.6
Lithium Battery Service Life	Years	≥10	≥10	≥10
Battery Type	–	Replaceable Lithium D-cell	Replaceable Lithium D-cell	Replaceable Lithium D-cell
Battery Configuration	–	Lithium	Lithium	Lithium