

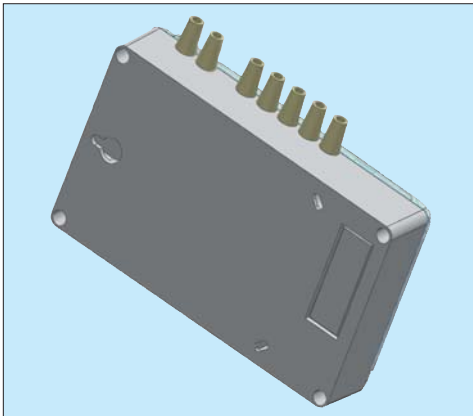


Energy Measurement and Management

P2G

Data logger with internal GSM modem and safety isolation for use with gas and water meters

P2G integrates a data logger, a GSM modem and safety isolation in a single unit. The internal GSM modem assures reliable data communication as a part of an AMR or an M&T system for industrial electricity, gas and water metering. **P2G** belongs to a new generation of professional communicators based on integrated intelligent i2-GSM™ modem technology developed by Iskraemeco. The **P2G** communicator is ATEX approved and manufactured in compliance with BS EN 60079 and ISO 9001.



 4-channel pulse input & output

 Data logger


 Event Log

 Low power AMR by SMS

 Internal clock

 Local reading/programming

 Protection level

 Intrinsic safety certified

- AMR for electricity, gas, water and other pulse emitting meters
- Integrated GSM modem for remote communication
- Low power operation for extended battery life
- Intrinsically safe isolation
- Profile logging of up to four input channels
- Physical tamper detection and alarming
- Local programming and reading via IR interface using HHU
- Configurable input-to-output port mapping (IGE/GM/7)
- Ambient temperature monitoring and logging
- Compact weatherproof housing for wall or panel mounting

FUNCTIONAL AND TECHNICAL FEATURES

Data logger

P2G counts input pulses and stores the accumulated totals in on-board non-volatile memory.

- Configurable logging interval of 5, 15, 30, 60 minutes or 24 hours
- Typical storage capacity exceeds 40 days of 30-minute data per channel (if 2 bytes per data)
- Ambient temperature logging
- Integrated Real-Time Clock (RTC) providing up to 5 configurable schedules defining when and which captured data is transmitted

Inputs

- Up to four intrinsically safe pulse inputs for direct interface with up to four utility meters or pulse correctors
- Reed switch or solid state pulse type inputs are accepted
- Pulse counting on the inputs at maximum frequency of 20 Hz
- Either input can be associated with one of the isolated pulse output ports
- One input can be mapped to all pulse output ports (IGE/GM/7)
- Tamper inputs associated with pulse inputs

Outputs

- Up to four isolated voltage-free optocoupler outputs
- Each output is capable of dissipating up to 130 mW

Event log

Several operational events including network performance, SMS message transactions, battery status and tampering are logged continually. Automatic alarm or error messages via SMS can be configured.

Infrared optical communication port (IEC 62056-21)

- Local data readout of the historic records for each input channel
- Local configuration of the unit during installation or maintenance

AMR communication interface

- Integrated GSM Dual band 900/1800 MHz modem
- High performance internal antenna with external antenna option
- Data transfer with SMS messages according to SMP (SMS Meter Protocol)

- Scheduled data transmission with configurable start time and period
- On-demand data transmission
- Remote configuration

Power supply

- Factory supplied 3.9 V lithium battery, size D
- Estimated battery life exceeds 5 years assuming one SMS transmission per day
- Easy replacement of the battery on site

Easy installation & commissioning

- Fixing to the wall or any other base by screws; P2G is not position dependent
- Field initialisation and programming of the unit using HHU or a laptop

Enclosure


- Made of highly durable polycarbonate
- Weatherproof IP54 protection level against dust and water penetration
- Rectangular recess for a slip-on external antenna coupler
- Supplied with input and output cables according to the customer's specifications


Accessories

- MeterView software for Microsoft Windows XP
- IR optical probe with a DB9 or USB connector
- External antenna with a coupler

Protection and safety

- A sealed unit cover preventing access to the fixing screws
- Intrinsic safety certificates according to ATEX Directive:

SIRA 04 ATEX 2394
 II (1) G [EEx ia] IIC
 $-20^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$

SIRA 06 ATEX 2144X
 II 1 G EEx ia IIC T4
 $-20^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$

DEVICE TYPE DESIGNATION

P2G-K17V03100-IS

- P2** – Communicator & Data Logger
- G** – Explosive environment – gas meters
- K17** – IR + GSM communication modules
- V03101** – 4 pulse inputs / 4 optocoupler outputs
- V03100** – 2 pulse + 2 tamper inputs / 2 optocoupler outputs
- IS** – Intrinsically safe as a whole (Zone 0)

P2G TYPES AVAILABLE

P2G-K17V03101

P2G-K17V03100

The inputs are intrinsically safe. The unit must be installed in the safe area. However, it may be connected to a device in the hazardous area.

P2G-K17V03100-IS

The unit is intrinsically safe as a whole and may be installed in the hazardous area (Zone 0).

TECHNICAL DATA

Number of pulse inputs.....	max. 4
Switch on resistance	< 10 Ohms
Switch off resistance.....	> 10 ⁶ Ohms
Number of optocoupler outputs	max. 4
Output pulse width	5 ms
Optocoupler output rating	130 mW
Mutual channel isolation	2500 V _{dc}
RTC accuracy	±10 ppm with GSM network synchronisation
EMC	EN 61000-6-2 & EN 61000-6-3
RF EM field.....	10 V/m (0.1 – 1 GHz)
Operating temp. range	-20°C ... +60°C
Storage temp. range	-25°C ... +75°C
Ambient humidity	<75% annual mean
Dimensions (W x H x D)....	180 x 105 x 44 mm
Mass.....	approx. 0.40 kg

OVERALL DIMENSIONS (mm)

