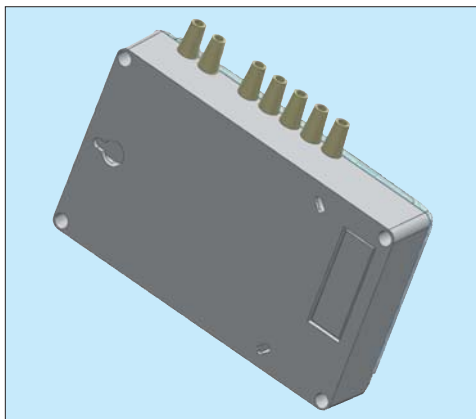










## P2G

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°C ≤ Ta ≤ +60°C

#### SIRA 06 ATEX 2144X

 II 1 G EEx ia IIC T4  
-20°C ≤ Ta ≤ +60°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 <sup>6</sup> Ohms
Number of optocoupler outputs .....	max. 4
Output pulse width .....	5 ms
Optocoupler output rating .....	130 mW
Mutual channel isolation .....	2500 V <sub>dc</sub>
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)

