

Hanwell utility

Water, gas and electricity monitoring

The Hanwell utility range is an innovative monitoring system that measures and records utility usage over time and allows statistical analysis of kilowatts/hrs, cubic meters of gas and litres of water consumed. It can quickly identify and eliminate areas of waste, resulting in significant savings within weeks of installation.



The reported data can then be used to provide logged records as evidence of sustained usage reduction over time. Hanwell utility transmitters can be added to existing Hanwell environmental monitoring systems providing a cost-effective solution to utility monitoring.

Utility sensors can be deployed across a site with minimal disruption. There is no need to disconnect electrical supplies as utility devices use split core current clamps to monitor electrical circuits.

Features

- British designed and manufactured
- Data logger, radio and GSM transmitter formats available
- High performance technology
- Logger memory capacity 100,000 readings
- Easily accessible battery and USB socket
- Supports (optional) hidden wall brackets
- Up to 3 years battery life (depending on format of data retrieval)
- Low power radio for long distance transmission (Over 3km over open ground)
- Complies with RoHS, EU directives and WEEE
- Carries CE Marking
- Superior performance hardware with high accuracy sensors

Benefits

- Easy installation without any interference with mains
- Reduces energy costs
- Reduces carbon footprint
- Wireless communication for cost effective install
- Detailed analysis of usage and costs
- Compatible with existing Hanwell systems

Always ask for a long-range signal strength test.

We can prove ours to be unrivalled.



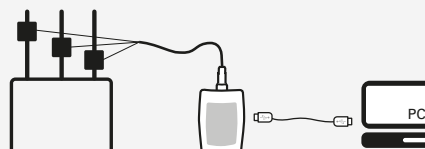
Data logger, radio formats and GSM are available within this range and each will contain the typical functions below:

DATA LOGGER FUNCTIONS

Memory:	256K EEPROM
Logging intervals:	Programmable from 10 seconds to 24 hours.
Record Capacity	100,000 records
PC Interface:	USB communications
Battery Life	Up to 3 years
Software required:	W200 – HanLog 4.5+
Accessories:	88706 – 3.6V AA Lithium battery Y055 – USB cable Y119 – Wall mount bracket <i>This product can be calibrated to your specifications, contact us for further details.</i>

N.B Instrument operating range -20°C to +65°C in a non-condensing RH environment

Schematic

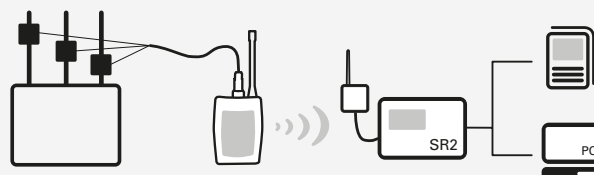


RADIO TRANSMITTER FUNCTIONS

Frequency options:	A range of frequencies are available between 433-458MHz. Country specific regulations apply.
Radio power:	10mW
Radio range:	3km over open ground
Battery Life:	Up to 18 months
Software required:	W700 – Standard Synergy Software Package W706 – Validated Synergy Software Package *See Synergy datasheet for further options
Hardware required:	CR2 – Controller SR2 – Smart Receiver REP – Repeater

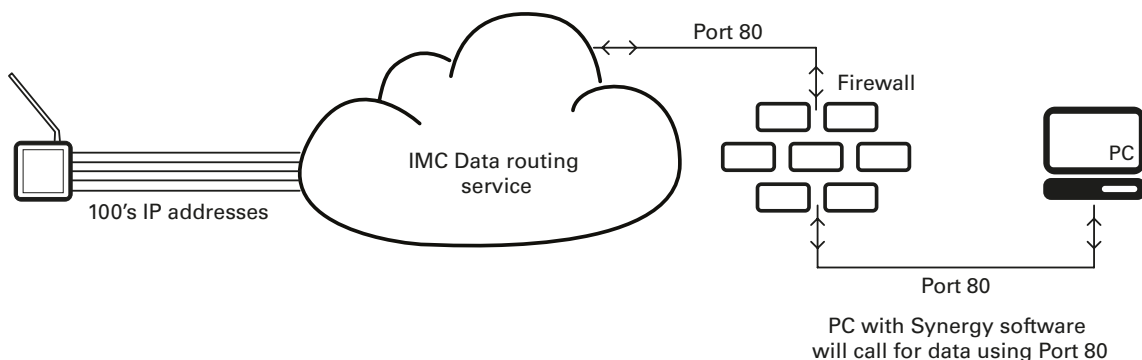
N.B Instrument operating range -20°C to +65°C in a non-condensing RH environment (operating range dependant on sensor)

Schematic



GSM - Quad band module

GSM antenna connection is SMA. Knuckle antenna provided. SIM card required. The SIM socket is only visible when the case lid is removed. Both units operate from 2 x Alkaline D cell battery pack. Battery pack can be purchased from Hanwell and fitted by customer. Battery life is up to 5 years (one SMS a day i.e. 30 minute measurement period and no events enabled).



CLAMPS

The Hanwell data logger and radio transmitters allow for wire-free internal monitoring of a site, with real time alarm notifications and historical analysis of data. Each unit measures the output of current clamps providing fast and reliable information about energy usage and cost. The data is transmitted automatically, at user-defined intervals, to the Synergy system where it is filed for analysis.

Modern equipment may induce very rapid changes in supply currents due to the internal switching operation of the device. A standard current clamp (J091, J134, J135, J139) may not follow all of this activity because it has a limited frequency response (typically 100 Hz) and therefore under these circumstances it will typically read low.

Contact us for assistance with choosing the right clamp for your application.



J091

*Switchable split core CT sensor Ranges: 0-30A, 0-60A and 0-120A. (Max cable diameter 22mm)
Dimensions: 70mm (w), 74mm (h), 25mm (d)



J135

*A single range split core CT sensor 5A. (Max cable diameter 10mm)
Dimensions: 25mm (w), 50mm (h), 35mm (d)



J134

*A single range split core CT sensor 50A. (Max cable diameter 10mm.)
Dimensions: 25mm (w), 50mm (h), 35mm (d)



J139

*A single range split core CT sensor 100A. (Max cable diameter 10mm)
Dimensions: 25mm (w), 50mm (h), 35mm (d)

4601



Data logger code: HL4601

Radio transmitter code: RL4601-434.075 (other frequencies are available)

SPECIFICATIONS

Instrumentation Specification:

Dimensions:	110 x 80 x 35mm
Weight:	200 grams
Power supply:	3.6V AA Lithium battery
Case material:	ABS & PC
Memory capacity:	100,000 readings
IP Rating:	IP65

Data Loggers

HL4601-MRC	(for use with J091)
HL4601-05A	(for use with J135)
HL4601-50A	(for use with J134)
HL4601-100A	(for use with J139)

Radio

RL4601-MRC	(for use with J091)
RL4601-05A	(for use with J135)
RL4601-50A	(for use with J134)
RL4601-100A	(for use with J139)

HL4601 (Data logger) + RL4601 (Radio)

4000 series indoor CT clamp unit for 3 single phases or 1 x 3 phase supply.

4602 & 4603



HL4603 (GSM) + RL4602 (Radio)

4000 series outdoor CT clamp transmitter for 3 single phases or 1 x 3 phase supply.

GSM transmitter code: HL4603

Radio transmitter code: RL4602-434.075 (other frequencies are available)

SPECIFICATIONS

Instrumentation Specification:

Dimensions:	110 x 100 x 60mm
Weight:	600 grams (including battery pack)
Power supply:	2 x Alkaline D cell batteries
Battery Life:	5 years (depending on usage and configuration)
Case Materials:	ABS & PC
Memory capacity:	100,000 readings
IP Rating:	IP65 (external glands IP68)

Radio Transmitter code

HL4602-MRC	(for use with J091)
HL4602-05A	(for use with J135)
HL4602-50A	(for use with J134)
HL4602-100A	(for use with J139)

GSM Transmitter code

RL4603-MRC	(for use with J091)
RL4603-05A	(for use with J135)
RL4603-50A	(for use with J134)
RL4603-100A	(for use with J139)

Disclaimer

The information contained herein is believed to be reliable. The IMC Group Ltd is not responsible for any incorrect or incomplete information on this datasheet and the information or product may be changed without notice. Customers should obtain and verify the latest relevant information before placing orders for IMC products.

Version 2

PULSE COUNTING

The Hanwell pulse counting radio and GSM/GPRS transmitters provide wire-free monitoring of a site. The units can be used to collect data from electricity, water and gas meter outputs (an isolation device may be required for gas meters) and energy meters with a suitable pulse output providing accurate and reliable information about utility usage and cost. This data is transmitted, at user-defined intervals, to the Synergy software where it is filed for analysis. Alternatively the data can be sent to an FTP site for collection by third party software packages. The sensor cable entry into the case is via a cable gland and terminated into a terminal block allowing for ease of installation and making the unit suitable for use outdoors (IP65 rated case).

4604 & 4605



RL4605 (GSM) + RL4604 (Radio)

Single channel outdoor pulse counter

Radio transmitter code: RL4604-434.075 (other frequencies are available)

GSM/GPRS transmitter code: RL4605

SPECIFICATIONS

Instrument Specifications:

Dimensions	110 x 100 x 60 mm
Weight	600 grams (including battery pack)
Power Supply	2 x Alkaline D cell batteries
Batter Life	5 years (depending on usage and configuration)
Case Materials	ABS & PC
Memory Capacity	100,000 readings
IP rating	IP65 (external glands IP68)

Technical Specifications:

Type	Volt free contacts or opto isolated
Input details	
Pulse Frequency	Maximum 15Hz
Pulse Mark/space	Minimum 25msec
Wetting current	Between 1 to 2mA into a maximum impedance of 10 ohms
Total pulse counts	Yes
Maximum Total count	65535 (16 bits)
Difference Over Period	Yes
Maximum Difference	65535 (16 bits)
Period	30 minutes (adjustable)
Error	±1 count

4606 & 4607



RL4607 (GSM) + RL4606 (Radio)

Single channel outdoor pulse counter and sync

Radio transmitter code: RL4606-434.075 (other frequencies are available)
GSM/GPRS transmitter code: RL4607

SPECIFICATIONS

Instrument Specifications:

Dimensions	110 x 100 x 60 mm
Weight	600 grams (including battery pack)
Power Supply	2 x Alkaline D cell batteries
Batter Life	5 years (depending on usage and configuration)
Case Materials	ABS & PC
Memory Capacity	100,000 readings
IP rating	IP65 (external glands IP68)

Technical Specifications:

Type	Volt free contacts or opto isolated
Input details	
Pulse Frequency	Maximum 15Hz
Pulse Mark/space	Minimum 25msec
Wetting current	Between 1 to 2mA into a maximum impedance of 10 ohms
Total pulse counts	Yes
Maximum Total count	1073741823 (30 bits)
Difference Over Period	Yes
Maximum Difference	65535 (16 bits)
Period	30 minutes (adjustable)
Period Sync	Sync input to allow synchronisation to meter time
Error	±1 count

4608 & 4609



RL4609 (GSM) + RL4608 (Radio)

Dual channel outdoor pulse counter

Radio transmitter code: RL4608-434.075 (other frequencies are available)
GSM/GPRS transmitter code: RL4609

SPECIFICATIONS

Instrument Specifications:

Dimensions	110 x 100 x 60 mm
Weight	600 grams (including battery pack)
Power Supply	2 x Alkaline D cell batteries
Batter Life	5 years (depending on usage and configuration)
Case Materials	ABS & PC
Memory Capacity	100,000 readings
IP rating	IP65 (external glands IP68)

Technical Specifications:

Type	Volt free contacts or opto isolated
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Input details

Pulse Frequency	Maximum 15Hz
Pulse Mark/space	Minimum 25msec
Wetting current	Between 1 to 2mA into a maximum impedance of 10 ohms
Total pulse counts	Yes
Maximum Total count	1073741823 (30 bits)
Difference Over Period	Yes
Maximum Difference	65535 (16 bits)
Period	30 minutes (adjustable)
Error	±1 count

4610 & 4611



RL4611 (GSM) + RL4610 (Radio)

Dual channel outdoor pulse counter and sync

Radio transmitter code: RL4610-434.075 (other frequencies are available)
GSM/GPRS transmitter code: RL4611

SPECIFICATIONS

Instrument Specifications:

Dimensions	110 x 100 x 60 mm
Weight	600 grams (including battery pack)
Power Supply	2 x Alkaline D cell batteries
Batter Life	5 years (depending on usage and configuration)
Case Materials	ABS & PC
Memory Capacity	100,000 readings
IP rating	IP65 (external glands IP68)

Technical Specifications:

Type	Volt free contacts or opto isolated
Input details	
Pulse Frequency	Maximum 15Hz
Pulse Mark/space	Minimum 25msec
Wetting current	Between 1 to 2mA into a maximum impedance of 10 ohms
Total pulse counts	Yes
Maximum Total count	1073741823 (30 bits)
Difference Over Period	Yes
Maximum Difference	65535 (16 bits)
Period	30 minutes (adjustable)
Period Sync	Sync input to allow synchronisation to meter time
Error	±1 count

ROGOWSKI COILS

The advanced range of rugged GSM/GPRS and Radio transmitters can be used with Rogowski coils providing fast and reliable information about energy usage and cost. The data is transmitted automatically, to the Synergy system where it is filed for analysis.

The Rogowski coils have been designed to be a non-intrusive, non-disruptive method to energy monitoring. 3 channel Rogowski coil GSM/GPRS transmitter up to 800 amps as standard.

A Rogowski coil by contrast has an inherently very high frequency response. The Hanwell sensors can accurately follow changes up to 1kHz, which is usually more than enough to give an accurate result on typical installations (HVAC etc.) Contact us for assistance with choosing the right monitoring technology for your application.

4623 & 4624

Radio transmitter code: RL4623-434.075 (other frequencies are available)
GSM transmitter code: RL4624



RL4623 - Radio transmitter

4000 series transmitter with 3 channel Rogowski coil. Up to 800amps.



RL4624 - GSM transmitter

4000 series transmitter with 3 channel Rogowski coil. Up to 800amps.

SPECIFICATIONS

Instrumentation Specification:

Dimensions:	110 x 100 x 35mm
Weight:	600 grams (including battery pack)
Power supply:	2 x Alkaline D cell batteries
Battery Life:	5 years (depending on usage and configuration)
Case material:	ABS & PC
Memory capacity:	100,000 readings
IP Rating:	IP65 (external glands IP68)

Rogowski Coils

Current range	Up to 800 amps
Max cable diameter	140mm (other sizes are available upon request)