Model C6350B PowerView iGAL Galvanic CP Remote Monitor
Web based remote monitoring for galvanic Cathodic Protection installations

- Monitor galvanic CP installations
- Battery powered with up to 6 years life.
- SMS/Email/Notification alarms on exceptions
- Monitor multiple units from a single private web login
- Wirelessly connected to the web for remote operation
- Monitor references, anode current & corrosion coupons
- Switch anode current to perform Instant Off testing etc

Features

- Monitors up to four anode currents
- Monitors up to four reference electrode voltages
- Monitors up to four corrosion coupon currents
- Weatherproof enclosure for outdoor mounting
- Easy to install with minimal wiring
- Battery operation for 3 to 6 years

Overview
The **PowerView iGAL** Galvanic CP remote monitor is designed to provide remote monitoring and testing of galvanic cathodic protection installations.

This battery powered unit is supplied as a standalone unit or mounted in an optional weather-proof enclosure for easy installation close to the area of protection. See ordering information.

Monitoring Your Corrosion
Galvanic protection of concrete and steel structures provides a simple proven means of preventing corrosion by the installation of zinc based (or similar) anodes that are more electrochemically reactive than the steel in the structure. If the potential between the steel and the anodes is large enough, then the steel corrosion is halted.

But providing the ongoing assurance that the corrosion has been halted is a more complex process, often relying on the use of specialised measurements taken on site on a regular basis.

The iGAL is designed to reduce the number of site visits over the life of the asset, providing a significant cost saving and at the same time providing an improved level of assurance that the asset remains protected.

Web-based Logging and Monitoring
The iGAL is compatible with the Data2Desktop CP Monitoring Web portal. An integrated wireless data link installed in the iGAL sends readings every day to the Data2Desktop website where it is logged and available from any browser for display, trending or downloading for reporting purposes.

Temporary or Permanent Installations
The iGAL can be used temporarily after the initial installation to monitor the corrosion rates for a period to ensure that the system is performing as intended, or can be installed permanently, allowing the ongoing monitoring and verification of the performance of the system over many years.

Anode Current Monitoring and Switching
Up to four anode sets can be connected and monitored through the iGAL to the structure to allow the ongoing measurement of the current in the anodes. The anodes can be remotely disconnected from the structure to enable testing such as the measurement of instant off potentials of the steel and measurement of potentials over a longer depolarisation period. In addition, further anodes (unmonitored) can be connected through the iGAL so that testing can be performed with all anodes disconnected from the structure.

Reference Electrodes
Reference electrode half cells are used to measure the electrical potential of the steel in the structure with respect to the surrounding environment – a key indicator of the effectiveness of the cathodic protection. The iGAL can monitor up to four reference electrodes using high impedance voltmeter technology.

Corrosion Coupons
The iGAL also has four zero-resistance-ammeter inputs. These can be connected to corrosion coupons to directly measure the representative corrosion current in the structure. This can provide a more direct and alternative means of monitoring the rate of corrosion.

Email and SMS Alarms
Alarms can be configured on the Data2Desktop Website to alert you when any parameter such as anode current or reference potential goes out of preset range.

Temperature Sensor
An internal temperature sensor on the iGAL allows the local temperature to be logged for more informed assessment of protection of the structure over varying temperatures.
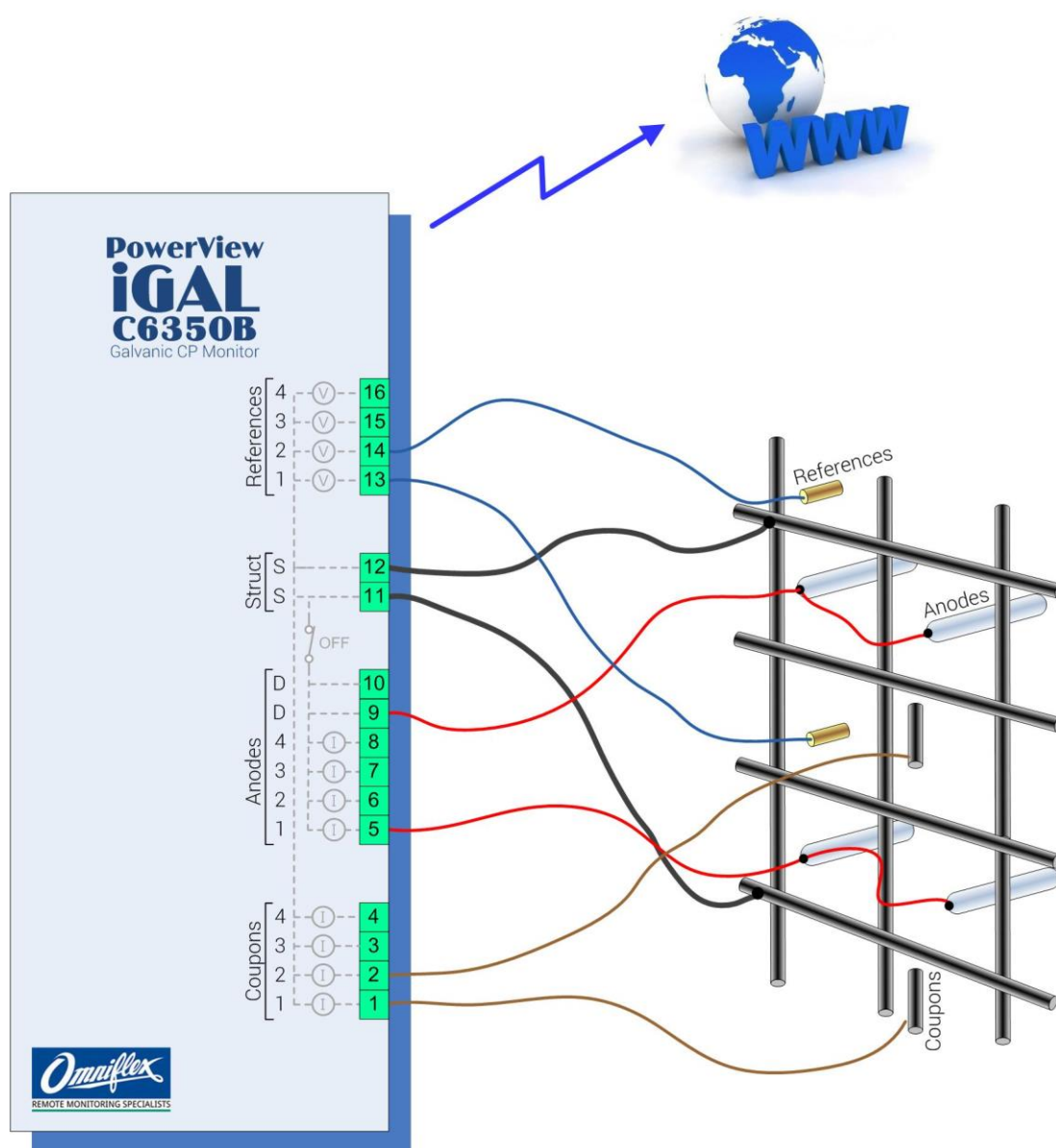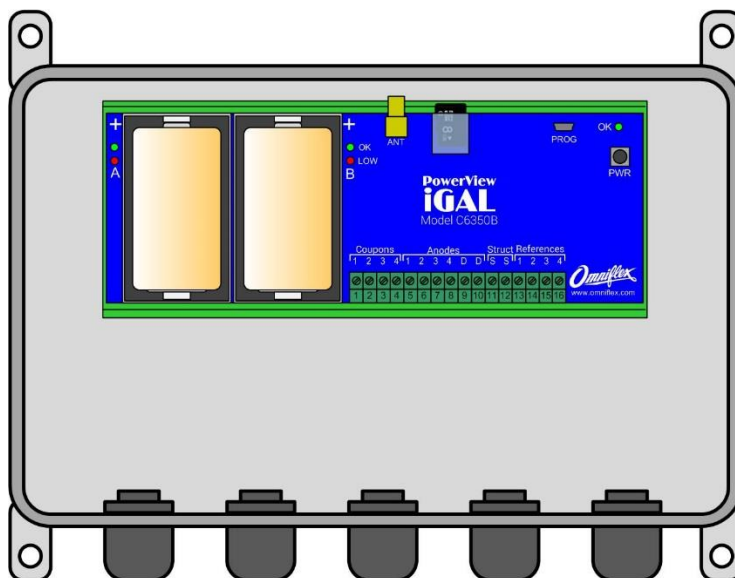
iGAL Connections

iGAL General Arrangement

Housing Mechanical Dimensions
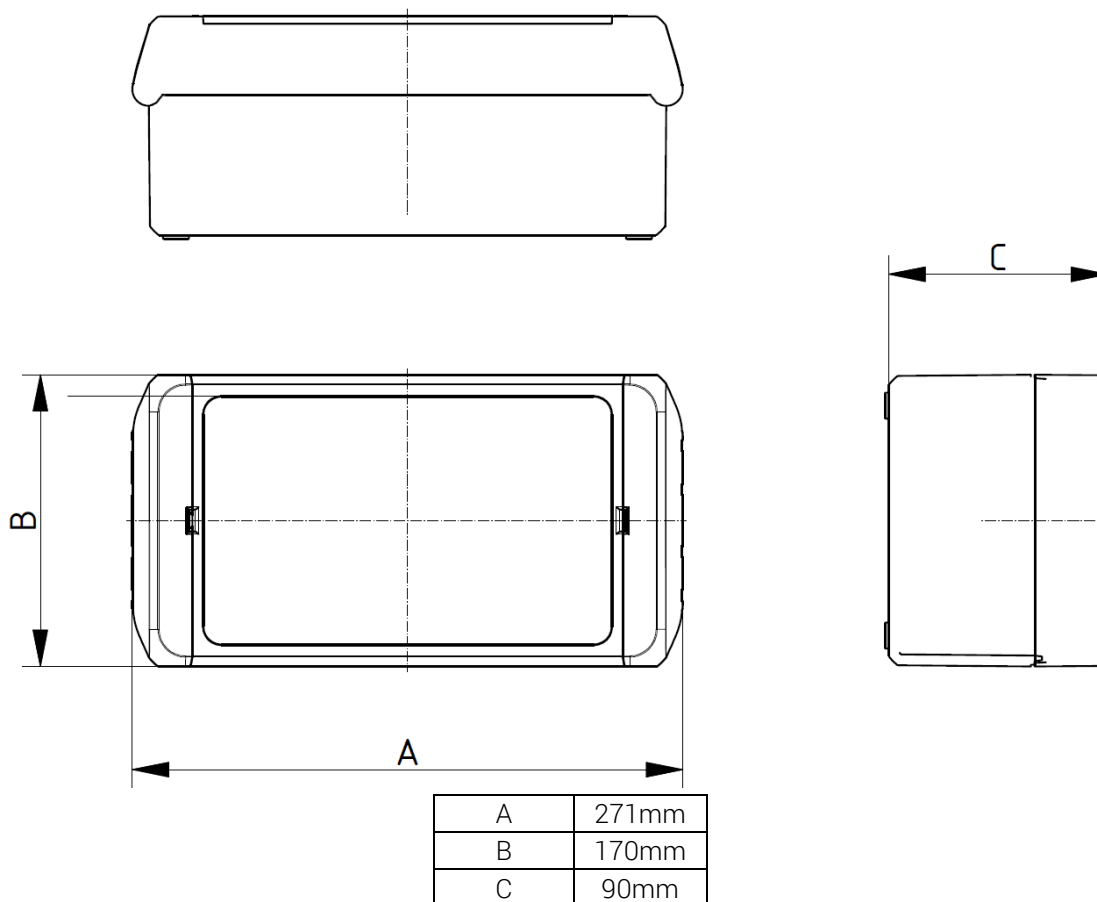
A	271mm
B	170mm
C	90mm

iGAL Mechanical Dimensions

All dimensions in mm
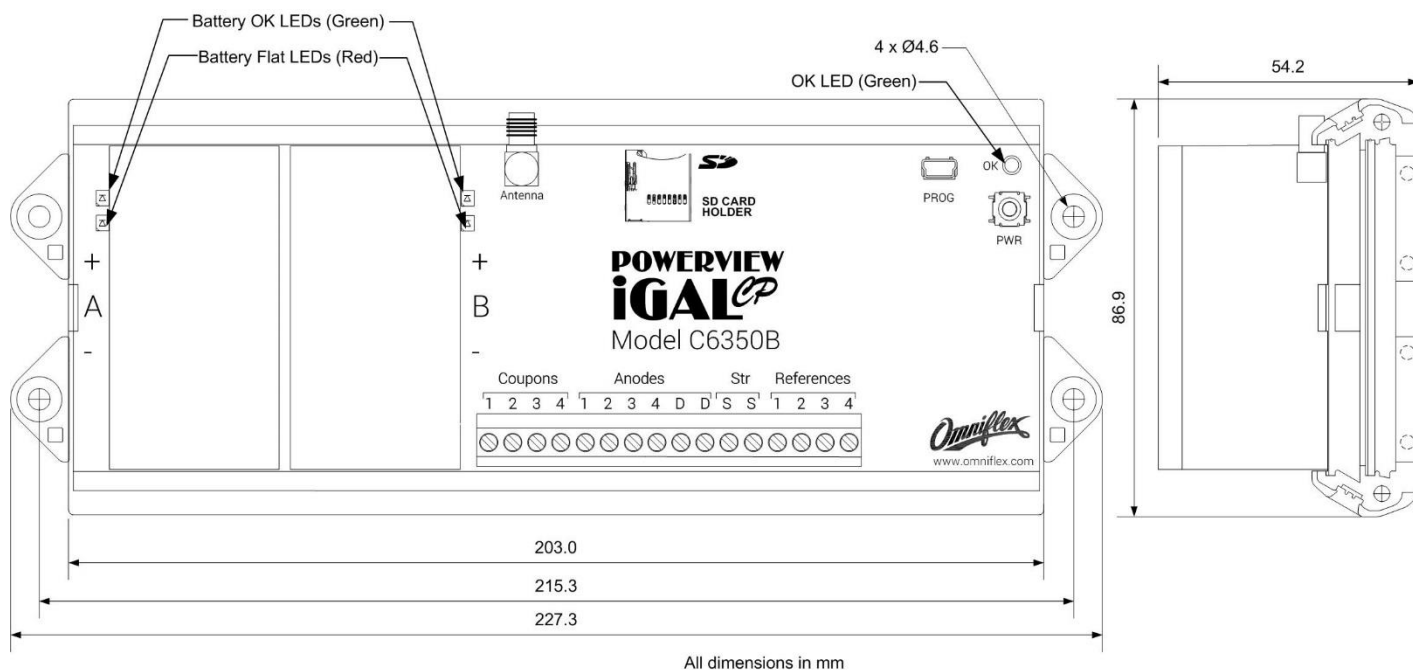
Specifications

Network Communication Specifications

Model C63500B-11 LTE Version (Europe, Middle East, Africa)

Bands	LTE FDD: B1/B3/B5/B7/B8/B20 WDCMA: B1/B5/B8 GSM: B3/B8
Approvals	Various Carrier Approvals

Model C6350B-12 LTE Version (Australia, New Zealand)

Bands	LTE FDD: B1/B3/B5/B7/B28 WDCMA: B1/B5
Approvals	Telstra

Antenna

Antenna	External Antenna (0dB antenna supplied)
Antenna Connection	SMA Female Jack on iGAL

Reference Half-Cell Voltage Measurement Inputs

Quantity	4
Input voltage range	0 to ±3 V
Input Impedance	>100 MΩ
Resolution	1 mV
Accuracy	<10 mV

Anode Current Measurement Inputs

Quantity	4
Range	0-1 A
Resolution	54 µA
Accuracy	<1 mA

Corrosion Coupon Measurement Inputs

Quantity	4
Range	0-1 mA
Resolution	10 nA
Accuracy	100 nA

LED Indicators

OK LED (Green)	On in running mode Off when Power is off or in standby
Battery OK (Top) LED (Green) (one per battery)	Flashes when Battery is OK
Battery Flat (Bottom) LED (Red) (one per battery)	Flashes when Battery is Flat

Temperature Sensor

Quantity	1 (internal)
Sensor Type	NTC Thermistor
Temperature Range	-20 to 55 °C
Accuracy	± 1 °C

Anode Switching

Maximum Current	5A

Batteries

Quantity	2
Type	3.6V Primary Li-SOCl$_2$ (non-rechargeable)
Size	'D' Cell
Battery Life	3 – 6 years typical with once per day updates

CP Testing / Verification Functionality

Functions Available	Instant Off Test Depolarisation Test

Environment

Operating Temperature	-10 to +50°C (+14°F – 122°F)
Storage Temperature	-10°C – 70 °C (+14°F – 158°F)
Degree of Protection in Weatherproof Housing	IP67 / NEMA 4S

iGAL Mechanical

Width	227mm (10.7")
Height	87mm (6.7")
Depth	54mm (3.6")
Weight	430g (15.1oz) approx.

Enclosure Mechanical

Enclosure	ABS Wall Mounting Box
Width	271mm (10.7")
Height	170mm (6.7")
Depth	90mm (3.6")
Weight	0.6 kg (1.3lb) approx. (box only).

Compliance to Standards

Safety	IEC950; EN60950
Emissions	EN 55011 Group I, Class A
Immunity	IEC 61326-1 (2005)

Ordering Information

ORDER CODE	DESCRIPTION
C6350B-11	PowerView iGAL (EU, South Africa)
C6350B-12	PowerView iGAL (Telstra – Australia/New Zealand)
Accessories	
C6360A	PowerView iGAL Weatherproof Housing
357.01.004	SAFX LSH20 3.6V Primary Lithium Battery (takes 2)

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