

The Squirrel 2010

A powerful portable data logger

- **Very easy to use**
- **Flexible with universal inputs**
- **Modem / Ethernet connectivity**
- **USB / RS232 connectivity**



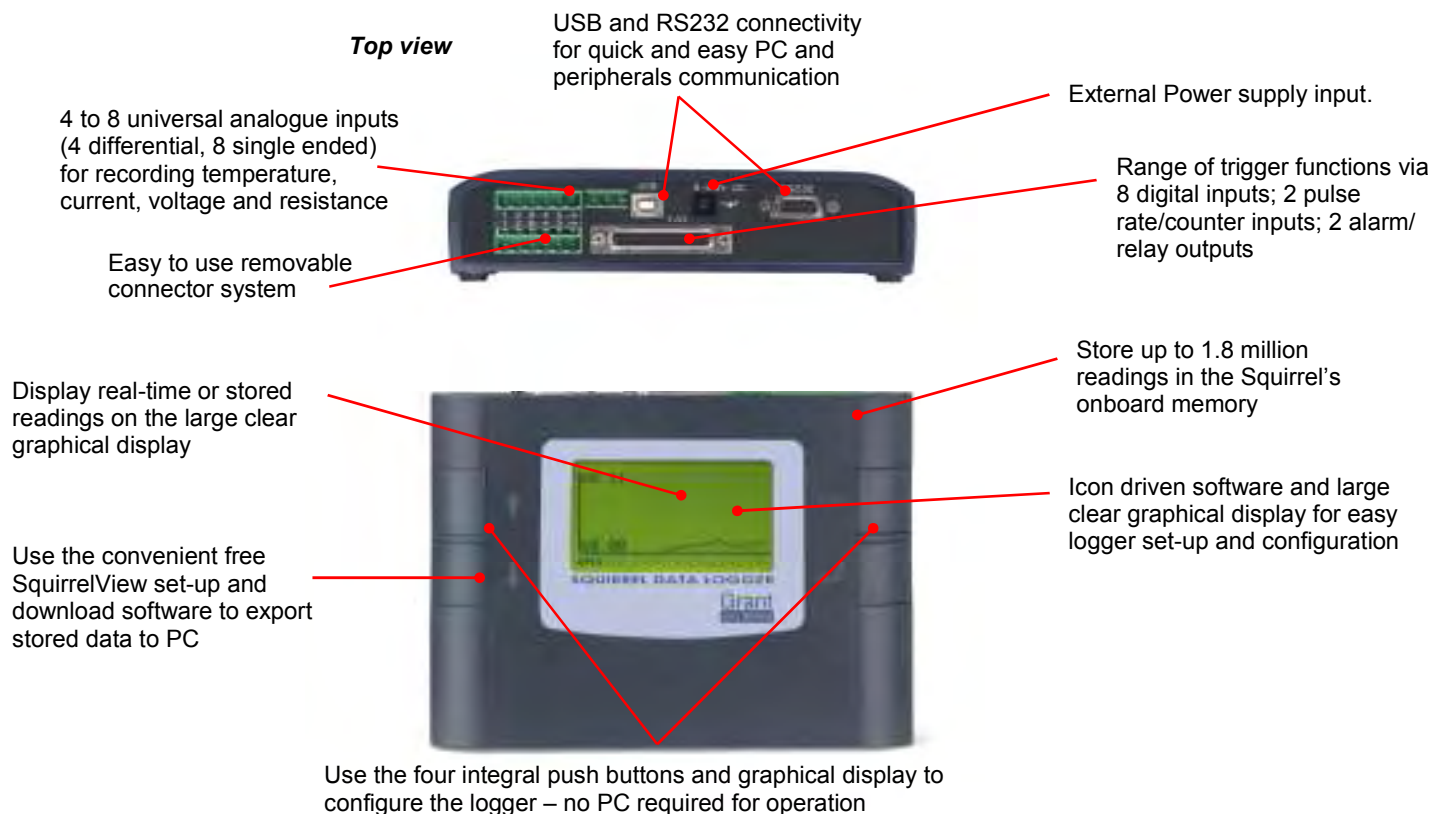
Overview

The SQ2010 is very easy to use via its intuitive icon driven display. For most applications a PC will not be required to configure it – making it ideal for short projects or out of the office applications. This rapid set up is achieved via its integral four button operator interface – give accurate, reliable results in minutes. It features a large graphical display, provides 0.1% accuracy and boasts good batter life for unattended logging.

The Squirrel 2010 is a versatile general purpose logger with 4 to 8 analogue input channels to measure current, voltage, resistance and temperature; two pulse count or rate inputs and 8 event inputs. An RS232 port is included, allowing connection to modems and other networking devices.

Key features

- Small, truly portable data logger
- 4 to 8 universal analogue inputs (current, voltage, resistance, temperature) plus 8 digital inputs
- 16 derived / calculated channels
- 2 alarm outputs and 2 pulse counter inputs (1 at 64kHz, 1 at 100Hz)
- Configured via large easy-to-read graphical display
- 0.1% accuracy (of reading)
- Store up to 1.8 million readings on the internal memory
- Supplied with SquirrelView set-up / download software



Technical Specifications:

No. of analogue channels	4 differential or 8 single ended inputs
Universal Input	Yes – on all analogue channels
Voltage Ranges, Differential and Single Ended	-6 to 25, -0.6 to 2.4, $\pm 0.3V$ (see User Feature for more details)
Common mode	25v
Current Ranges, Differential (Requires external 10R shunt)	4 to 20mA, $\pm 30mA$
Thermocouple Ranges (differential and single ended)	-200 to 1200°C, J-type -200 to 1372°C, K-type -200 to 1300°C, N-type -50 to 1768°C, R-type -50 to 1768°C, S-type -200 to 400°C, T-type
Resistance Ranges, all 2-wire	0 to 1250R, 0 to 300000R
Thermistor Ranges	-50 to 150°C, U & UU-type -50 to 150°C, Y-type -30 to 150°C, S-type TBC
Pt100/1000, 2-wire	-200 to 850°C
Internal reference temperature	-50 to 150°C
Pulse Count Ranges	0 to 100Hz (1 input) 0 to 64kHz (1 input) 0 to 16000000Count
Digital State / Event Ranges	00000000 to 11111111 State 0 to 255 Digital
Digital / Alarm Outputs	2 open drain FETs, 18V, 0.1A
Analogue to Digital Resolution	24 bit (but only 18-20bits used)
Accuracy	0.10% of readings + 0.1 of range
Clock Resolution/Accuracy	1s / 10ppm
Sampling Rates	Normal Mode – each input sampled at a maximum rate of 1 reading per second. Double-speed (mains reject off) – one input can be sampled at 10 readings per second and all others are sampled at a maximum rate of 1 reading per second See FD3.1, Scanning & Scheduling for more info.
No of Intervals	4
Data Scaling	Yes
Data Statistics	In Host Analysis
Calculated Channels	Up to 16
Memory Internal	16Mb (1 to 1.8 million readings)
Display / Keypad	128 by 64 dot graphical display, 4 button keypad navigation
Internal Battery	2 C type cells
External Power	8 to 28V DC and via USB when connected
Sensor Power Output	5V at 50mA, external 8-28V at 100mA (when connected)
Networking	Via RS232 to Ethernet converter
Modem Support	Via RS232 modem
Actions & Triggers	Yes with two alarm outputs
PC Setup	Via SquirrelView
Front Panel Setup	All essential functionality available via in built key pad e.g. channel configuration, start / stop logging etc. All other advanced functions e.g. calculated channels and channel descriptions available via SquirrelView.
Stored setups	6
Host Communications	SquirrelView via USB / PC connection
Operating temp	-20 to 65 degrees C