

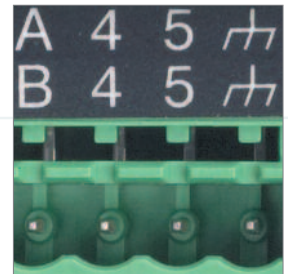
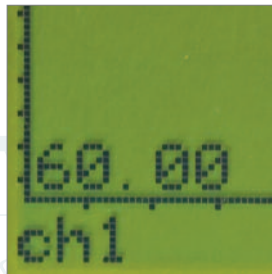
# Squirrel 2010

**A powerful portable data logger**

## Overview

The Squirrel 2010 is a versatile, general purpose data logger, with 4 to 8 analogue input channels to measure current, voltage, resistance and temperature; plus 8 digital channels to automatically trigger or stop logging. An RS232 port is included, allowing connection to modems and other networking devices.

It is a compact, portable data logger which is also suitable for bench based and fixed installations. Easily programmed via the four integral push buttons and large graphical display and with a basic accuracy of 0.1%, the Squirrel 2010 is able to fulfil many routine data logging needs, including more demanding applications requiring up to 10 readings per second on one channel.



## Key features

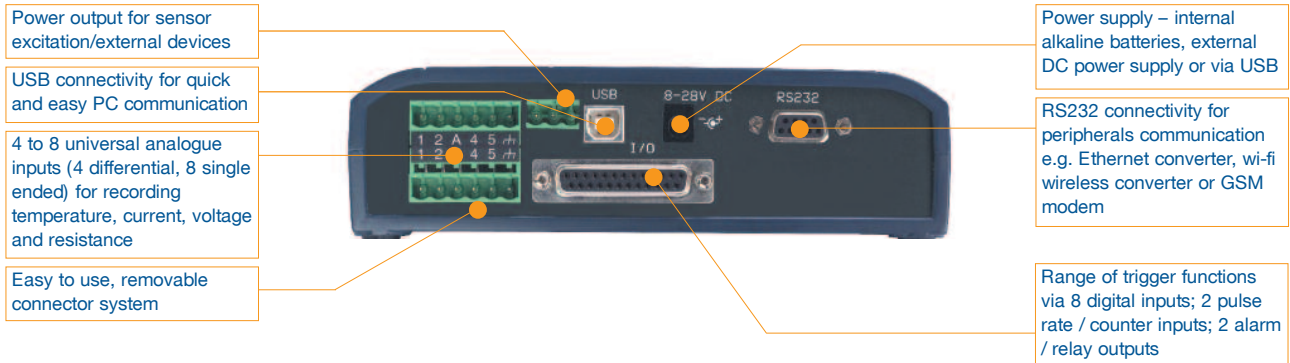
- » Compact, truly portable data logger
- » 4 to 8 universal analogue inputs (current, voltage, resistance, temperature) plus 8 digital inputs
- » 16 derived / calculated channels
- » 2 alarm outputs and 2 pulse counter inputs (1 at up to 64kHz, 1 at up to 100Hz)
- » Configured via large easy-to-read graphical display
- » 0.1% accuracy of reading
- » Store up to 14 million readings
- » Supplied with SquirrelView set-up / download software

## Analogue inputs supported

- » Thermistors
- » Thermocouples
- » Voltage
- » Current
- » Resistance
- » 2-wire Pt100 / Pt1000



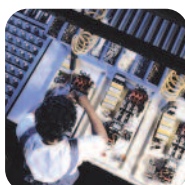
- >> **Flexible**
- >> **Very easy to use**
- >> **Economical**
- >> **Handheld, ergonomic design**
- >> **USB connectivity**
- >> **RS232 output for modem, Ethernet and Wi-Fi connection**



## Applications



Environmental



Measurement



Remote outdoor applications

## Capabilities

- >> **Create a wide range of triggers and alarm outputs**
- >> **Review real-time data on the integral display**
- >> **Display readings in preferred engineering units e.g. Hz, Bar, Pascals, Nm etc.**
- >> **Derive up to 16 calculated (virtual) channels from real input channels using mathematical functions**

# Squirrel 2010 Technical Specifications

Squirrel SQ2010	
No. of Analogue Channels	8 single ended or 4 differential inputs
Working Environment	- 30 to 65°C, RH up to 95% (non-condensing)
Universal Input	Yes
Voltage Ranges; Differential and Single Ended	-6V to 25V, -0.6V to 2.4V, $\pm 0.3V$ , -0.15V to 0.15V, -0.075V to 0.075V -6V to 12V, -6V to 6V, -3V to 3V, -0.6V to 1.2V, -0.6V to 0.6V
Common Mode	25V
Current Ranges, Differential (Requires external 10 $\Omega$ shunt)	4 to 20mA, -30 to +30mA
Thermocouple Ranges; Differential and Single Ended	<b>K-type</b> -200 to 1372°C <b>R-type</b> -50 to 1768°C <b>B-type</b> 250 to 1820°C <b>T-type</b> -200 to 400°C <b>S-type</b> -50 to 1768°C <b>C-type</b> 0 to 2320°C <b>N-type</b> -200 to 1300°C <b>J-type</b> -200 to 1200°C <b>D-type</b> 0 to 2320°C
Resistance Ranges, all 2 wire	0 to 1250 $\Omega$ , 0 to 5000 $\Omega$ , 0 to 300000 $\Omega$ , 0 to 20000 $\Omega$
Thermistor Ranges	<b>U &amp; UU-type</b> -50 to 150°C <b>Y-type</b> -50 to 150°C <b>S-type</b> -30 to 150°C Customer specific thermistors
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 16000000 Count
Digital State/Event Ranges	8 state inputs or 1 x 8 bit binary
Digital/Alarm Outputs	2 open drain FETs, 18V, 0.1A
A/D Resolution	24 bit
Accuracy	0.1% of range + 0.1% of reading
Clock Resolution/Accuracy	1s/10ppm 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
No of Intervals	4
Data Scaling	Yes
Data Statistics	Yes from within SquirrelView Plus PC software
Calculated Channels	Yes, up to 16
Memory Internal	16Mb (up to 14 million readings)
Display/Keypad	128*64 dot graphical display, 4 button keypad
Internal Battery	2 x C cells
Battery Life	Up to 5 days with continuous usage whilst sampling all channels once per second
External Power	Yes, 8 to 28V dc & USB when plugged in
Sensor Power Output	5V at 50mA, external 8-28V at 100mA (when connected)
Networking	Via RS232 to Ethernet adaptor or RS232 to Wi-Fi adaptor
Modem Support	Via RS232 modem (GSM Modem, part no. SQ20A802)
Actions & Triggers	Two alarm outputs, fully configurable actions and triggers
PC Setup	Yes, SquirrelView compatible
Front Panel Setup	Via 4 integral 4 keys. All essential functionality available via key pad e.g. channel configuration, start / stop logging etc. Other advanced functions e.g. calculated channels and channel descriptions are available via connection to a PC running SquirrelView
Stored Setups	6
Third Party Programming	As 20xx driver suite allows
Operating Temperature	-20 to 65°C
Dimensions (w x d x h)	175 mm x 135 mm x 55 mm, Weight 0.7 kg

Note: supplied with software, SQ2010 manual, USB cable, batteries and 4 current shunt resistors.



# WolfLabs

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The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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