

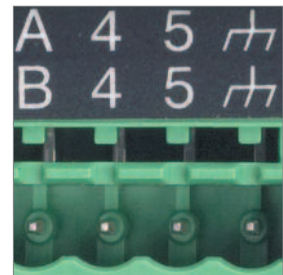
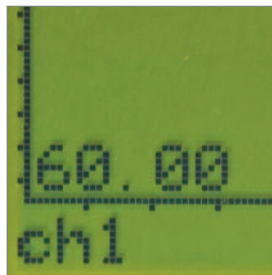
Squirrel 2010

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



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

Power output for sensor excitation/external devices

USB connectivity for quick and easy PC communication

4 to 8 universal analogue inputs (4 differential, 8 single ended) for recording temperature, current, voltage and resistance

Easy to use, removable connector system

Power supply – internal alkaline batteries, external DC power supply or via USB

RS232 connectivity for peripherals communication e.g. Ethernet converter, wifi wireless converter or GSM modem

Range of trigger functions via 8 digital inputs; 2 pulse rate / counter inputs; 2 alarm / relay outputs

Display of real-time readings on the large clear graphical display

Icon driven software and large clear graphical display for easy logger set-up and configuration

Use the four integral push buttons and graphical display to configure the logger – no PC required for operation

Store up to 14 million readings in the Squirrel's onboard memory

Store up to 6 logger configurations in the on-board memory

Use the convenient free SquirrelView set-up and download software to export stored data to your application (see pp. 10-11)

Applications



Environmental



Measurement



Utilities

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

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	-6 to 25, -0.6 to 2.4, $\pm 0.3V$, -0.15 to 0.15, -0.075 to 0.075 -6 to 12, -6 to 6, -3 to 3, -0.6 to 1.2, -0.6 to 0.6		
Common mode	25v		
Current Ranges, Differential (Requires external 10R shunt)	4 to 20mA, $\pm 30mA$		
Thermocouple Ranges; Differential and Single Ended	K-type -200 to 1372°C T-type -200 to 400°C N-type -200 to 1300°C	R-type -50 to 1768°C S-type -50 to 1768°C J-type -200 to 1200°C	B-type 250 to 1820°C C-type 0 to 2320°C D-type 0 to 2320°C
Resistance Ranges, all 2 wire	0 to 1250R, 0 to 5000R 0 to 300000R, 0 to 20000R		
Thermistor Ranges	U & UU-type -50 to 150°C Y-type -50 to 150°C S-type -30 to 150		
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 SquireView Plus PC software		
Calculated Channels	Yes, up to 16		
Memory Internal	16M (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 (Netport, part no. SQ20A801)		
Modem Support	Via RS232 modem (GSM Modem, part no. SQ20A802)		
Actions & Triggers	Two alarm outputs, fully configurable actions and triggers		
PC Setup	Yes, SquireView 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 SquireView		
Stored setups	6		
Third Party Programming	As 20xx driver suite allows		
Operating temp	-20 to 65°C		
Dimensions (w x d x h)	175 mm x 135 mm x 55 mm, Weight 0.7 kg		