

6 TECHNICAL SPECIFICATIONS

6.1 ANALOG CIRCUITS

Measuring method :	Successive approximation 11 bits + sign	
Measurement interval :	Off-line :	Min 1 ms per channel. Max 1000ms
	On-line :	Min NA Max 1000ms
Inputs :	8 differential inputs	
	Impedance:	min 400k Ω betw. + and - min 5M Ω betw. + and GND and betw. - and GND Current inputs are shunted by 51 Ω
	Max overvoltage :	30V
	Max overcurrent :	
	(20mA range)	80mA
Ranges : (Factory set or programmable)	Voltages :	+/- 50mV +/- 100mV +/- 1000mV +/- 10V
	Current :	+/- 20mA
Dynamic range : (No of divisions)	Min. +/- 1800 divs. on all ranges	
Resultant resolution :	50mV range	+/-30 μ V
	100mV range	+/-55 μ V
	1000mV range	+/-0.55mV
	10V range	+/-5.5mV
	20mA range	+/-11 μ A
Uncertainty : @ 25°C (all ranges)	0.25% of FSR	
	Tempco : 100ppm + offset drift	

Offset: (@ 25°C)	Initial :	+/-½ division (=bit)
	Drift :	
	50mV range	72ppm/°C
	100mV range	36ppm/°C
	1000mV range	3.6ppm/°C
	10V range	0.4ppm/°C
	20mA range	3.6ppm/°C
Common mode range		
at the:	50mV range	+/-10V
	100mV range	+/-10V
	1000mV range	+/-10V
	10V range	+/-5V
	20mA range	+/-10V
CMRR (DC)	all ranges	min. 80dB

6.2 Auxiliary voltage source

Voltage :	2 - 10V adjustable Max 100mA using supplied PSU
Current :	Max 200mA using PSU with higher power rating

6.3 Trigger input/output

Trigger input	HC-CMOS Schmitt trigger input with 100kΩ series resistor and 100kΩ pulldown.	
Trigger output	HC-CMOS output.	Low < 0.1V (Io > -4mA)
		High > 4.7V (Io < +4mA)

6.4 Storage memory (optional)

Sizes : 0k bytes (only on-line usage)
64k bytes
544k bytes
1046k bytes

Every stored measurement value occupies two bytes.

6.5 Computer communication

Data is transferred in a serial form to and from the computer. The serial standard conforms to a subset of RS-232.

Format : 8 bit ASCII
1 start bit
8 data bits
1 stop bit
19200 baud

Signals : Tx (2)
(pin no.) Rx (3)
CTS (5)
DTR (6)
GND (7)

Handshaking : Hardware handshaking is employed.
DTR : Signals that the logger is operational (output)
CTS : Signal allowing the logger to transmit (input)

6.6 Commands

See separate manual: "Command manual".