

The DC1250 is a feature rich data acquisition system offering 2 universally configurable isolated inputs for measuring DC voltage, DC current, thermocouples and RTD's as well as frequency and pulse inputs. 4 internal alarm setpoints, 2 alarm relay outputs and 1 digital control input are all standard. A maximum sample storage rate of 100 samples per second can be set for both channels allowing for capture of short duration process signal anomalies. CompactFlash™ cards up to 2 Gigabyte size can be used allowing many data points to be stored over long periods of time.

The DC1250 can be used in conjunction with many of Monarch's speed measurement sensors. Power for sensors is provided from the DC1250 rear terminals. Measure, display and record RPM ranges from 5 - 600,000. Choose the sensor best suited for your application or take your existing signal directly into the 1250.



Data Chart 1250



### Temperature Inputs

**Thermocouple:** Accuracy: 0.3% of full scale (typical). Ambient Temperature Sensor Accuracy: ±1.5°C

Type	Range
J	-100 to 760°C ±2°C (-148 to 1400°F ±3°)
K	-100 to 1000°C ±2°C (-148 to 1832°F ±3°)
K	0 to 1370°C ±2°C (32 to 2498°F ±3°)
T	-240 to 400°C ±2°C (-400 to 750°F ±3°)
E	-80 to 400°C ±2°C (-112 to 750°F ±3°)

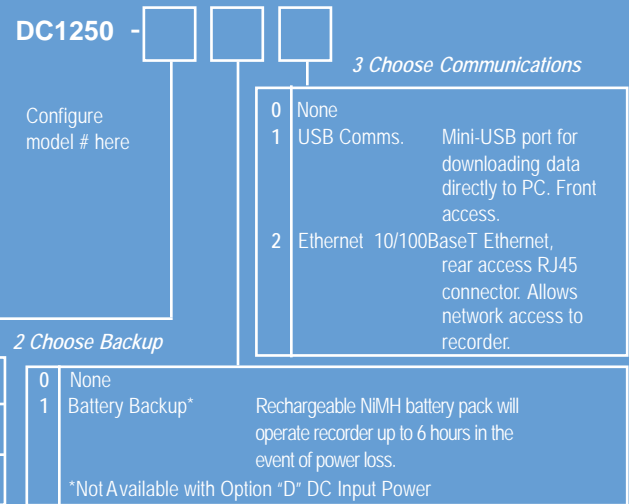
**RTD:** Accuracy: 0.3% of full scale (typical). Resolution: 0.1°C

**Internal current source: 1mA**

Type	Range
100 Ohm Pt 385	-100 to 750°C (-148 to 1380°F)
100 Ohm Pt 392	-100 to 750°C (-148 to 1380°F)

2 or 3 wire.

### Ordering Information



DataChart DC1250 Specifications (abbreviated)	
<b>Input Power:</b>	
<b>Standard:</b>	9 Vdc +/- 0.5Vdc @ 5VA (depends on external loads) provided by external AC wall transformer, non-isolated. 100-240Vac 50/60Hz
<b>Option:</b>	Isolated 12-24 Vdc input power available (not compatible with internal battery pack option below).
<b>Option:</b>	Internal battery pack provides uninterrupted operation and controlled shutdown during blackout. 6Vdc, 2400mAh NiMH Backup Time; 6 HRS. typical (depends on external Load).
<b>Outputs:</b>	2 outputs 5Vdc @ 50mA to power external sensors.
<b>No. of Channels:</b>	2 universal, user selectable.
<b>Isolation:</b>	300V AC/DC channel input to chassis ground
<b>Input Types:</b>	
<b>DC Voltage</b>	
<b>Ranges:</b>	0-250mV; 0-1.25V; 0-2.5V; 0-5V; 0-12.5V; 0-25V
<b>Accuracy:</b>	0.1% of reading
<b>Resolution:</b>	0.025% of full scale
<b>DC Current</b>	
<b>Ranges:</b>	0-20mA; 4-20mA; 0-50mA; 10-50mA
<b>Accuracy:</b>	0.1% of reading excluding 250 ohm external shunt (required).
<b>Resolution:</b>	0.025% of full scale
<b>Frequency Input:</b>	
<b>Range:</b>	0 - 10,000 Hz / 0 - 600,000 RPM
<b>Accuracy:</b>	Freq: ±1 Hz; RPM: ± 1 RPM below 9,999 RPM; ±10 RPM above 9,999RPM
<b>Input:</b>	Low <1.0Vdc; High >3.0 <12.0Vdc
<b>Pulse width:</b>	10 microsecond minimum.
<b>Input Impedance:</b>	>100k ohms
<b>Measure Rate:</b>	Up to 100 samples/sec per channel.
<b>Math Function:</b>	Y = mx + b; average, hi peak, low peak.
<b>Media:</b>	Compact Flash to 2 GB.
<b>Display:</b>	LCD Graphics, 160 x 80 pixels, black FSTN with white LED backlight. User controlled backlight level and contrast adjust.
<b>User Interface:</b>	5 button keypad (dual function buttons).
<b>Clock:</b>	Auto leap year and daylight savings adjustment. Internal battery back-up.
<b>Relay Output:</b>	Two alarm outputs: 30V 0.25A Form A relays
<b>Isolated Input:</b>	One input, 5 to 12Vdc activation @ 10mA typical.
<b>Audible:</b>	Internal beeper (multiple tones).
<b>Dimensions:</b>	Front panel: 96mm x 96mm (1/4 DIN) x 152mm (3.78 x 3.78 x 6 inches).

### 1 Choose Input Power

S	Standard AC Adapter	100-240Vac wall adapter with North American Plug
U	Universal AC Adapter	100-240Vac wall adapter with interchangeable Plug Set
D	DC Input Power	12-24Vdc input power Isolated

### 2 Choose Backup

0	None	
1	Battery Backup*	Rechargeable NiMH battery pack will operate recorder up to 6 hours in the event of power loss.

\*Not Available with Option "D" DC Input Power

### Accessories

Model No.	Description	Model No.	Description
Navigator	Windows Compatible Software for graphic analysis, printing transfer and exporting	MAS250R	250 ohm Precision Resistor for current inputs. 0.1% 0.5 watt
CFCR	CompactFlash™ Card Reader USB 2.0 compatible	NIST-1250	N.I.S.T. Calibration with data

### CompactFlash™ Memory Cards

MC128MBCF	128 Megabyte
MC256MBCF	256 Megabyte
MC512MBCF	512 Megabyte
MC1024MBCF	1 Gigabyte
MC2048MBCF	2 Gigabyte