

# Isotech Precision Thermometer

## – millik

# ISOTECH



### Features

- High Accuracy  $\pm 0.003^{\circ}\text{C}$
- SPRTs, PRTs, Thermistor Thermocouples and 4 to 20mA, Process Inputs
- Expand to 33 Channels
- Controls Isotech Calibration Baths
- Galvanically Isolated Inputs
- Can store a lifetime of logged data
- Eliminates Thermal EMF Errors
- Lead Wire Correction
- Connectivity - Two Serial Interfaces, Ethernet and USB Host

### SPECIFICATIONS

Accuracy	Initial	Over 1 year	Input Channels	3
SPRTs / PRTs:	5ppm	7ppm	Channels 1+2	SPRTs, PRTs, Thermistor and Thermocouples
Thermistors:	50ppm	150ppm	Channels 3	Process 4 - 20mA Isolated 24VDC Power Supply Included
Thermocouples:	2 $\mu\text{V}$	4 $\mu\text{V}$	Ranges	SPRTs: 0-115 $\Omega$ PRTs: 0-460 $\Omega$ Thermistors: 0-500k $\Omega$ Thermocouples: $\pm 115\text{mV}$ 4-20 mA: 0-30mA
4-20 mA	0.01%	0.02%	Interfaces	10/100MBit Ethernet (RJ45 socket) USB (2.0) host 2 x RS232 (9-pin D-type plug, 9600 Baud)
Temperature Accuracy	Initial	Over 1 year	Display	89mm / 3.5" QVGA (320X240) colour TFT LCD with LED backlight
SPRTs / PRTs (at 0 $^{\circ}\text{C}$ ):	3mK	4mK	Display Units	$^{\circ}\text{C}$ , $^{\circ}\text{F}$ , K, $\Omega$ , mV, mA
(over full range):	5mK	7mK	Measurement Time	950mS
Thermistors:	50ppm	150ppm	Statics	In Addition to Instantaneous Display user can select mean of 2 -100 measurements with Standard Deviation
Thermocouples:			Cable Length	Limited to 10 $\Omega$ per core and 10nF shunt capacitance (equivalent to 100m of typical 4-core screened PTFE cable)
Type B:	$\pm 0.23^{\circ}\text{C}$	$\pm 0.46^{\circ}\text{C}$	Logging	Limited to 10 $\Omega$ per core and 10nF shunt capacitance (equivalent to 100m of typical 4-core screened PTFE cable)
Type E:	$\pm 0.03^{\circ}\text{C}$	$\pm 0.06^{\circ}\text{C}$	Recommended Probes	Isotech Semi Standard PRTs Isotech Model 909 SPRT
Type J:	$\pm 0.04^{\circ}\text{C}$	$\pm 0.07^{\circ}\text{C}$		
Type K:	$\pm 0.05^{\circ}\text{C}$	$\pm 0.10^{\circ}\text{C}$		
Type L:	$\pm 0.04^{\circ}\text{C}$	$\pm 0.07^{\circ}\text{C}$		
Type N:	$\pm 0.06^{\circ}\text{C}$	$\pm 0.12^{\circ}\text{C}$		
Type R:	$\pm 0.17^{\circ}\text{C}$	$\pm 0.34^{\circ}\text{C}$		
Type S:	$\pm 0.19^{\circ}\text{C}$	$\pm 0.38^{\circ}\text{C}$		
Type T:	$\pm 0.05^{\circ}\text{C}$	$\pm 0.09^{\circ}\text{C}$		
Au-Pt:	$\pm 0.12^{\circ}\text{C}$	$\pm 0.23^{\circ}\text{C}$		
Resolution	Resistance(PRTs):	0.0001 $\Omega$		
	SPRTs / PRTs:	0.001 $\Omega$		
	Thermistors:	0.00001mV		
	SPRTs / PRTs:	0.001mA		
	Thermistors:	0.0001 $^{\circ}\text{C}$		
Input Connectors	SPRTs/PRTs:	LemoEPG. 1B.306 HLN 6-pin gold plated contacts		
	Thermocouples:	Miniature Thermocouple socket (ASTM E 1684-05) 4mm sockets		

### MODEL

### DESCRIPTION

milliK	Isotech Precision Thermometer Optional Carrying Case 931-22-102
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