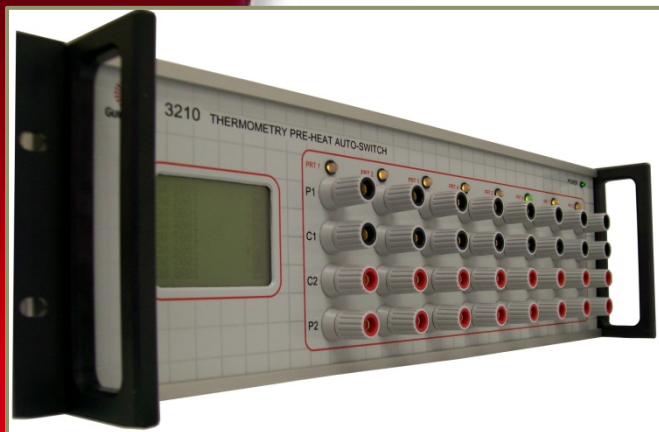


Model 3210 Thermometry Auto-Switch with Pre-Heat

LOW THERMAL 8 CHANNEL ACTIVE SPRT ADAPTER

First Commercial Precision Temperature Interface Switch with Programmable Currents



3210 FEATURES

- ◆ Connect up to 8 PRT's/SPRT's at One Time
- ◆ Supports Non-SPRT Probes or devices with currents other than 1 mA
- ◆ Programmable Pre-Heat Currents from 20 μ A to 150 mA
- ◆ Pre-Heat Available and Set-able on an Individual Channel Basis
- ◆ Ideal for Use with Fixed Points and Comparison Furnaces
- ◆ 5 Way Front Panel Connectors Allow Easy Front Panel Access for Spade Lugs
- ◆ Multiple Interfaces can be integrated
- ◆ Front Panel Operator Connection with Touch Screen Control

Guildline's NEW 3210 Thermometry Auto-Switch with Pre-Heat automates temperature measurements including fixed points and thermometer calibrations. Up to 8 SPRTs or other temperature devices can be connected with individually programmable DC currents from 20 μ A to 150 mA.

The 3210 Thermometry Adaptor is a low noise, low thermal contact, high isolation interface switch and connection panel that allows multiple PRTs, SPRT's or other temperature devices to be easily connected to a measurement device such as Guildline's 6622T Temperature Bridge. The 3210 can be connected directly to a Guildline 6622T Temperature Bridge with no need for a scanner.

This model has a built-in switch to automatically measure multiple connected devices, while using individual programmable pre-heat/keep-warm currents in between measurements. Both IEEE 488.2 and USB connections are provided and the 3210 Thermometry Adaptor can be controlled by Guildline's PC based BridgeWorks software package.

The 3210 Thermometry Adaptor Provides Easy Access for Automating up to Eight PRT's or SPRT's with User Programmable Channel Currents!

The 3210 can also be connected to a Guildline's 6664C Scanner to allow multiple reference standards to be used, or both resistance and temperature measurements to be made without operator intervention.

These capabilities greatly improve the measurement and calibration throughput of temperature laboratories and can easily and quickly automate the measurement of single or multiple PRT's and SPRTs.

MODEL 3210 THERMOMETRY AUTO-SWITCH WITH PRE-HEAT

The 3210 includes pre-heat capability for PRTs, SPRTs and other temperature devices and dramatically improves the settling time and thermal stability. The provision of programmable “pre-heat” current sources on each channel also enables true automation of root 2 measurements to determine the self-heating effects of multiple PRT’s as each channel can be programmatically independently to provide any required current, then to provide the associated root 2 current – all without operator intervention.

The ability to specify a pre-heat current, rather than always defaulting to 1 mA, is very important when using non-PRT thermometers such as RTDs and thermistors. The use of a 3210 Thermometry Adaptor makes no material contribution towards uncertainty based on noise or repeatability. As an example, the 3210 Thermometry Adaptor has no measured effect on the uncertainty of Guildline’s 6622T Thermometry Bridges throughout their entire range of operation. This is because the 3210 has 8 independent isolated current sources to avoid crosstalk interference; and does not use the current source built into a temperature bridge thus eliminating additional errors and uncertainties due to loading effects.

Thermometry measurements connected to the 3210 Interface front panel are conducted in **true four-terminal mode** so long test leads or extensions can be used without worry about Thermal EMF’s. Since excitation current is DC, reactance introduced by the probe and probe leads does not affect measurement accuracy.



RANGE	FREQ	FUSE	POWER
100-100V ±1%	50/60Hz	1/2 A (T)	27 VA
220-240V ±1%	50/60Hz	1/4 A (T)	27 VA

The 3210 Thermometry Adaptor provides automation support for the calibration of multiple PRTs, SPRT’s or other thermometer devices.

Complete automation for both calibrations and research experiments can be easily accomplished with Guildline’s complete 6625T Temperature Measurement System. This System includes the modular 6622T Temperature Bridge (two available models), 3210 Thermometry Adaptor, 6664C Scanner if multiple reference standards are required or if resistance measurements are to be automated, and the highly stable 6634A Temperature Stabilized Resistance standards (e.g. with user specified values including 1 Ω , 10 Ω , 25 Ω , 100 Ω , 400 Ω , and 1 k Ω standards).

PC based BridgeWork’s™ Software comes with both the 6625T System and/or the 6622T Temperature Bridge and allows multiple tests to be sequenced and grouped to run even when operators are not present. Multiple 3210’s can be used in a single 6625T Temperature Measurement System.



MODEL 3210 THERMOMETRY AUTO-SWITCH WITH PRE-HEAT

Customers who purchase a 3210 Thermometry Adaptor or 6625T Temperature Measurement System can make multiple precision temperature measurements faster and with better uncertainties. The Guildline 6625T Temperature Measurement System provides more automation features than any competing approach, thus providing more efficiencies and cost savings. The 6625T is also the least expensive approach to equipping a temperature laboratory because of substantially reduced operating, calibration, training and ongoing life cycle costs; and is backed by a two year Guildline warranty. No other Temperature Measurement System in the world offers these advantages, or this flexibility, to customers.

SPECIFICATIONS				
Current Ranges	1 mA to 150 mA		Current Accuracy	±0.05%
Input Power	External 5V DC supply with input power 95~260V, 50/60Hz ±10%			
Input Connectors	8 Total with 5 Way Binding Posts (Gold Flashed)			
Environmental	Temperature		Humidity	
Operating	18 °C to 28 °C		15% to 80% RH	
Storage	-20 °C to 70 °C		15% to 80% RH	
Dimensions	Height	Width	Depth	Weight
millimetres	143 mm	451 mm	420 mm"	7.5 kg
inches	5.6"	17.7"	16.5"	16.5 lbs

UNPARALLELED SUPPORT

Guildline Instruments provides an **industry leading two year warranty** on this device and all associated resistance standards. We know that the 3210 **will work for you** out of the box and in the future... and we back it up.

ORDERING INFORMATION	
3210	8 Channel Low Thermometry Adapter with Current
	Operation Manual and Certificate of Conformance included
6664A-11-2	Low Thermal Lead Pair w/Gold Plated Banana Plugs, 1M length
6664A-12-2	Low Thermal Lead Pair w/Gold Plated Banana Plugs, 2M length
6664A-13-2	SCW Lead Pair with gold plated banana plugs X m (specify)
*Other Precision Leads Are Available – Call and tell us your requirements	
/Controller	System Controller with IEEE and Software Integrated
IEEE-PCI	NI IEEE-488.2 Interface for a PCI slot (Win 9X/NT/ME)
IEEE-2m	NI IEEE-488.2 Interface cable, 2m double shielded

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