MASTERTRACE MS 2101

HEAT TRACE CONTROLLERS

MS-2101

Nextron Corporation is a high technology company whose core business is the design, production and marketing of industrial electronic products.

The MS-2101 temperature controller is a single point, microprocessor based heat trace controller designed for use in Class 1, Division II/Zone II areas.

The MS-2101 provides the control and monitoring you require for all types of heat tracing systems in the majority of heat tracing applications.

THE BEST IN ADVANCED CONTROL

The MS-2101 was developed to control a single line of electrical heat tracing based on pipe temperature, measured by either one or two of the RTD inputs provided. These RTD inputs are user-settable with fail-safe features and can be configured to operate using only one, with the second used as a backup. Alternatively, one can be configured to act as a high temperature cutout, or both can be used to control heat tracing based on values of the highest, lowest, or average of the two readings.

The MS-2101 has both ON/OFF Control, with adjustable deadband, and Proportional Control that will maximize the performance and reliability of self-regulating, mineral-insulated and other types of heat trace. Our master override input provides external control for load shedding or ambient temperature override. The PowerLimit feature reduces high inrush current associated with self-regulating cable, eliminating the requirement for over-sized breakers, and allows the operator to set the maximum average heater current level of each circuit.

As a part of the MasterTrace family of products, the MS-2101 networks with other MasterTrace controllers providing the most flexible and cost effective solutions for your existing and future heat trace requirements.

THE BEST IN ADVANCED MONITORING

Nextron Corporation's MS-2101 continuously monitors all the important heat trace variables- temperature, heater

current, voltage and ground fault level- detecting and alerting operators of possible problems before they occur, avoiding costly frozen pipes or process problems. All the user settable alarm levels are independent of the trip levels and, in addition, the MS-2101 performs a self-check and monitors the RTD's and switches.

To ensure that your heat tracing system operates 24 hours a day, 365 days per year, TraceCheck periodically energizes and checks for alarm conditions on all dormant signals.

The MS-2101 also logs minimum and maximum values and energy usage.

EASY INSTALLATION AND SYSTEM INTERFACING

The MS-2101 comes ready to install. Mounted in a rugged NEMA 4X enclosure, no field assembly is required. All come with a solid state alarm contact that can be configured normally open or closed by the user, and an alarm output.

Nextron Corporation's MS-2101 is available with three types of Interface Modules. The Local Interface Module communicates with a single controller and comes mounted on the front door allowing user-friendly interrogation and programming, local or remote. The easy to read 32 character alphanumeric LCD displays alarms identifying the heater circuit by a user defined name- no codes to decipher.

The Group Interface Module communicates with multiple controllers up to 1200 meters (4000 ft) away.

Our Central Computer Interface is the heart of a plant-wide network using Modbus protocol. The MS-2101supports one RS 485 serial port to connect to a group interface module or central computer interface.

The advanced features of the MS-2101 make it the choice for your application. For more information on this and our other products, contact your local Nextron representative.

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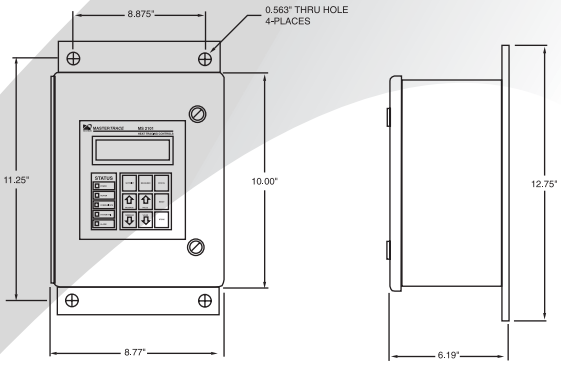
MS2101 SPECIFICATIONS

Range:	-50 to +500°C (-58 to 932°F)
Accuracy:	±2°C
Repeatability:	±1°C
RTD:	Two, 100 ohm platinum, 3-wire RTD 20 ohms maximum lead resistance
Configuration:	Two-pole, dual SCR per phase 800 amp 1 cycle inrush
Ratings:	85-280Vac, 30A continuous
Line Frequency:	50 or 60Hz
Current Measurement:	0.1 to 30A 3%±0.2A
GF Measurement:	10 to 1000mA 5% ±2mA
Voltage Measurement:	0 to 300VAC 3%±2V
Power Requirement:	Control power from heater voltage 85-120VAC, 10VA max
Communications:	(1) Modbus® RTU via RS485
Transmission Rate:	600, 1200, 2400, 4800, 9600 baud.
Modules per Highway:	32 Control Modules.

MEASURED VALUES

Min /Max Temperature:	-50 to 500°C (-58 to 932°F)
Heater Current:	0.1 to 60A
Ground Fault Current:	10 to 1000mA
Min. Heater Voltage:	85 to 300Vac
Max. Heater Voltage:	85 to 300Vac
Power Consumption:	0 to 1,000 MWh
Operating Cost:	0 to $1,000,000.00
Display:	16-character x 2-line LCD Alpha-numeric display
Security:	Controller parameters password protected
Approvals:	CSA C US & FM
Area Class	Class I, Div. 2, Groups A,B,C,D Class I, Zone 2, Groups IIC Class II, Div. 2, Groups F and G Class III
Operating Temperature:	-40°C to +50°C



ALARM OUTPUT

Alarm:	Programmable for NO or NC contacts One DC opto-isolated contact One AC triac contact
Alarm Rating:	DC contact: 30Vdc/0.1A, 500mW max AC contact: 12-240Vac@0.5A max
Alarm Output:	LED Indicator: 5Vdc/50mA

ALARM FUNCTION

Temperature:	High Temperature Alarm Low Temperature Alarm
Current:	Low Current Alarm High Current Alarm
Ground Fault Current:	Ground Fault Current Alarm Ground Fault Current Trip
Voltage:	High Voltage Alarm Low Voltage Alarm
Hardware:	Self-Check Failure Switch Shorted RTD Open RTD Shorted Continuity

ENCLOSURE

Type:	Nema-4X steel, painted black
Size:	10"Hx8"Wx6"D

For more information contact your local area representative or,

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