3.3.13 MS-10ADXH0 Control Module (CLASS I, DIV/ZONE 2 AREAS)

Temperature Input

Range:	-50°C to +500°C
Accuracy:	±2°C
Repeatability:	±1°C
Sensor:	Ten 100 ohm, Platinum, 3-wire RTD; one per point 20 ohm maximum lead resistance

Current Input

Range:	0.1A to 100A
Accuracy:	3%±0.2A
Sensor:	Ten current transformers; one per point

GF Input

Range:	10mA to 1000mA
Accuracy:	5%±2mA
Sensor:	Ten current transformers; one per point
Maimum Trip Time:	13.7 seconds

Heater Switching

No. of SSR Outputs:	Ten
SSR Output Rating:	12Vdc@15mA max output for driving external solid-state relays 600Vac@100A max. GF CT will allow two conductors of O.D. 0.35" max.
Heater Configuration:	Single Phase

Control Power

Power Requirements:	15VA @ 120Vac, 50 or 60Hz

Communications

Communication Ports:	(1) Parallel Local Interface connection (2) Serial network connections

Serial Communications

Type:	RS485
Protocol:	Modbus® RTU.
Transmission Rate:	600, 1200, 2400, 4800, 9600 baud.
Interconnect:	2-wire, shielded, twisted pair.
Highway Distance:	4,000 feet without repeater.
Modules per Highway:	(1) Interface and (30) Control Modules.

Measured Values

Temperature:	-50 to 500°C (-58 to 932°F)
Minimum Temperature:	-50 to 500°C (-58 to 932°F)
Maximum Temperature:	-50 to 500°C (-58 to 932°F)
Heater Current:	0.1 to 100A
Heater Percent Power:	0 to 100%
Ground Fault Current:	0.01 to 1.0A
Heater Utilization:	0 to 100%
Power Consumption:	0 to 1,000 MWh
Operating Cost:	0 to $1,000,000.00

Environment

Approval:	CSA NRTL/C Class1, Div.II, Groups A,B,C,D Class1 Zone 2, Group IIC
Operating Range:	-40°C to +60°C
Conformal Coating:	Boards conformal coated for hostile environments

Alarm

Alarm Output:	Programmable for NO or NC contacts One DC opto-isolated contact One dry mechanical contact
Alarm Output Rating:	
Hazardous Areas:	DC contact: 30Vdc/0.1A, 500mW max Dry mech contact: 30Vdc/10mA max 250Vac/0.5A max (not subject to a corrosive environment)
Ordinary Areas:	DC contact: 30Vdc/0.1A, 500mW max Dry mech contact: 120Vac/1.0A max 30Vdc/0.1A max
Alarm Light Output:	LED Indicator: 12Vdc/30mA

Alarm Messages

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

User-Settable Options

Heater Status:	Enable or Disable
Heater Name or Tag:	16 Character Alphanumeric
Temperature Units:	°C or °F
Control Strategy:	On-Off or Proportional
Deadband:	0 to 50C° (0-90F°)
StaggerStart:	On or Off
PowerLimit:	0.5 to 100A
Temperature Setpoint:	0 to 500°C (32 to 932°F)
High Temp Alarm:	0 to 500°C (32 to 932°F)
Low Temp Alarm:	-50 to 500°C (-58 to 932°F)
High Current Alarm:	0.5 to 100A
Low Current Alarm:	0.5 to 100A
High Current Trip:	0.5 to 100A
Ground Fault Alarm:	0.01 to 1.0A
Ground Fault Trip:	0.01 to 1.0A
TraceCheck Interval:	1 to 24 hr.
RTD Fail-safe:	Heater On or Heater Off
Master Override Input:	On or Off
Alarm Contacts:	NO or NC for each contact
Alarm Light:	Alarm on, Alarm off, Flash during alarm then on, Flash during alarm then off
GF Test:	1 to 24hrs, test now

Specifications subject to change without notice.