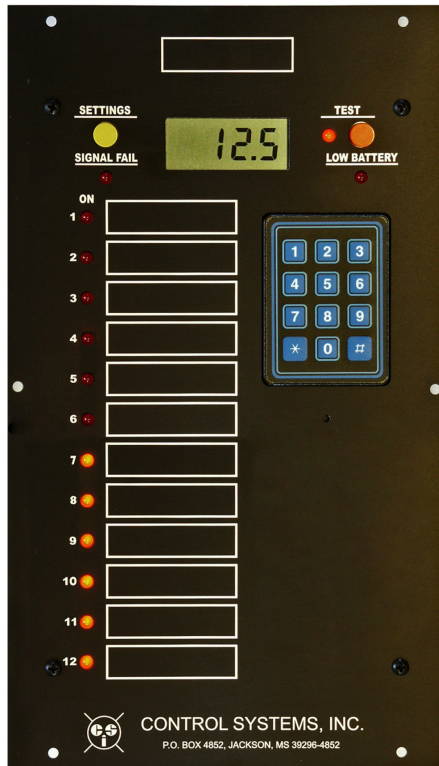




PRODUCT DATA BULLETIN

BULLETIN
MPCT12C
MULTIPOINT
CURRENT TRIP



STANDARD FEATURES

- 4-DIGIT LCD READOUT
- DISPLAY CAN BE CALIBRATED FROM THE FRONT OF THE UNIT
- DISPLAY ZERO CAN BE OFFSET
- 100 OHM INPUT IMPEDANCE
- ISOLATED 4-20mADC INPUT AND OUTPUT
- TWELVE INDIVIDUAL CONTROL POINTS
- SETPOINTS ARE VISIBLE ON DISPLAY
- BOARD TEMPERATURE SENSOR
- SIGNAL FAILURE RELAY OUTPUT WITH FRONT PANEL BLINKING LED.
- AUXILIARY ALARM RELAY OUTPUT: Configurable for Processor Battery, Temperature or Low Xdcr Failure Alarms
- TWELVE SPDT DRY CONTACT OUTPUTS
- TWELVE LED STATUS INDICATORS
- LAMP TEST INPUT
- PANEL MOUNTED
- UL RECOGNIZED FOR USE IN INDUSTRIAL CONTROL PANELS
- 120 VAC @ 60 HZ. POWER with 12vdc battery backup option.

DESCRIPTION

The MPCT12C Multipoint Current Trip board is a 120 VAC powered, solid-state, level meter/controller. A 12vdc power option is available for either main or backup power. Input level and settings are displayed on a 4-digit LCD display. The display range can be field set without an external simulator, up to a maximum of 6500. The input can be a 2-wire, 4-20ma transmitter, in which case the MPCT12C supplies the power for the current loop, or an instrument with its own power. The analog input is isolated and current limited to 24mADC. All settings can be individually displayed on the display for adjusting at any time. The display range can be set from the front of the unit and can be zero offset which makes it possible to read elevated levels directly. The display can be offset for elevated readings. Twelve LED indicators show the condition of each setting at all times. There is also a signal failure LED and low processor battery LED. Twelve independent dry contact relay outputs are provided for level settings, one for signal failure and one for low processor battery, along with an isolated 4-20ma output that mirrors the analog input. Twelve DIP switches are provided to select whether the level relays energize on rising or falling levels. In addition, there are individual relay action settings for high and low signal failures. The signal failure levels (high and low) are adjustable and have an adjustable deadband feature. The MPCT12C has microprocessor control and for SCADA communications has RS232 and RS485 serial ports, each with dedicated transmit and receive LEDs, and an optional Ethernet port. The standard communication protocols supported are Modbus RTU, Modbus ASCII, Modbus TCP and Bricknet. For added flexibility, the unit contains a built-in temperature circuit that may be used for monitoring panel temperature or for control, instead of using the analog input. For customization, the nameplate has spaces for labeling each setting for easy identification.

SUGGESTED SPECIFICATIONS

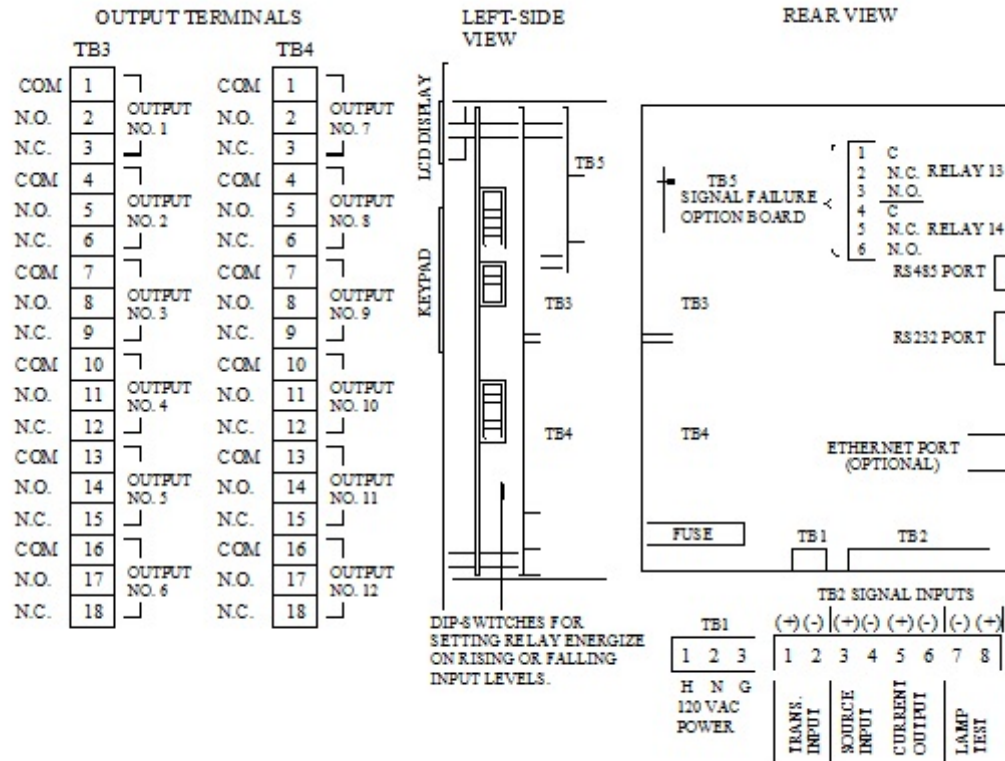
Provide an electronic, solid-state, proportional level meter/controller that will accept a four (4) to twenty (20) milliamp signal, condition the signal to provide a valid basis for control and then perform On/Off or Open/Close discrete dry type set point contact conditions based on the value of the analog input signal. The level meter/controller shall have the following features: The unit shall be provided with a 4-digit LCD readout meter which shall be capable of being calibrated from the front of the unit. The display zero shall be capable of being offset for elevated readings. In addition to displaying the scaled input level, the LCD display shall also be used to indicate all setting values, display analog mADC input value and board temperature. Provide twelve separate level setpoints, each with discrete, isolated SPDT relay contacts. Each setpoint shall have the capability of energizing on rising or falling levels. Provide an isolated 24vdc excitation voltage (current limited to 24ma) to drive a transducer/transmitter and condition its output signal to provide a continuous display of level. An LED indicator shall be provided for each setting to indicate when it is activated. The actual setting of each setpoint shall be able to be displayed on the digital readout at any time. Each setting shall be adjustable throughout the complete signal range from the front of the meter/controller. The 4-20ma input signal shall be routed into an isolated 20-bit A/D converter. Provide the capability of manually ramping the controller up and down, throughout its complete signal range, to test the operation of the setpoints and provide the capability of stopping at any desired level. The 4-20ma output may also be ramped during testing if desired. Provide a signal failure relay, to energize when the input signal goes above 20ma or below 4ma (configurable). This failure alarm shall also energize a front panel flashing LED alarm indicator. Provide an isolated D/A converter of at least 16 bits to control the 4-20ma output signal for additional monitoring and control devices. Provide temperature functionality for display and alarm which may also be configured for temperature control instead of analog input (level) control. Input impedance shall be 100 ohms and

the 4-20ma output shall be capable of driving at least 500 ohms. Provide a lamp test feature to test all front panel LED indicators and LCD digital display. For SCADA communications, the unit shall contain built-in RS232 and RS485 serial ports, each with dedicated transmit and receive LEDs. The unit shall also have the capability of an optional Ethernet port. The communications protocol shall be Modbus RTU, Modbus ASCII, Modbus TCP or Bricknet, as needed. The unit shall be capable of being polled from a remote telemetry unit to gather information directly, including the scaled analog input value, all setpoints and output relay conditions as well as all other alarm values. Remote changing of the main settings is available. The front nameplate shall have spaces for custom labeling of each of the twelve control relay settings for easy identification. Power shall be 120vac, with 12vdc power capability for battery backup. The unit shall be UL recognized for use in Industrial Control Panels.

SPECIFICATIONS

- SUPPLY VOLTAGE: 115/120 VAC, 50/60 Hz.
- 120VAC SUPPLY CURRENT: 100ma (12 watts)
- 12VDC BACKUP POWER CURRENT (Max.): 500ma (6 watts)
- OUTPUT CONTACT RATING: 5 Amps @ 120 VAC, Resistive
- DUTY CYCLE: Continuous
- 4-20ma INPUT IMPEDANCE: 100 Ohms
- NAMEPLATE DIMENSIONS: 6 3/4" Wide X 11" High

MPCT12C FIELD CONNECTIONS



ORDERING INFORMATION

Multipoint Current Trip Board (12-point): MPCT12C

WARRANTY: Control Systems, Inc. (CSI) warrants equipment of its own manufacture to be free from defects in material and workmanship, under normal conditions of use and service, and will replace any component found to be defective on its return to CSI, transportation charges prepaid, within one year of its original purchase. CSI will extend the same warranty protection on accessories which is extended to CSI by the original manufacturer. CSI also assumes no liability, express or implied, beyond its obligation to replace any component involved. Such warranty is in lieu of all other warranties express or implied.



CONTROL SYSTEMS, INC.
P.O. Box 4852, Jackson, MS 39296-4852
Telephone: (601) 355-8594
FAX: (601) 355-8774