



MPT-8B

METERING PULSE TOTALIZER

The MPT-8B metering pulse totalizer relay is designed to provide the totaled pulse values from eight input pulse sources. A single three wire output from isolated "dry", mercury wetted form "C" (K, Y, & Z) relay contacts is provided. All inputs are additive. Typical applications include interfaces between utility metering devices and customer owned energy control systems, demand recorder applications, and supervisory control systems (SCADA) interfaces. The MPT-8B has eight inputs (Y1 to Y8) and a single common "K" lead. The MPT-8B provides a sense voltage of 13 VDC to the eight sending source contacts. Each of the MPT-8B's inputs is allowed to have a different four digit multiplier which can be between the value of 0000 to 9999. The output multiplier is a six digit number between 000000 to 999999. Both the input and output multipliers may be field set without the use of any external programming devices.



Because the MPT-8B uses a two wire input which is more prone to have noise than a three wire input, a field programmable minimal time "ON" value of the input pulse along with a minimal "OFF" value time allows the MPT-8B to reject most noise normally encountered while correctly operating on valid input signals. The minimal time between output pulses may be set in milliseconds. An LCD display in the unit displays the status of the inputs and outputs when not being used in the setting of the pulse multiplier values. The "K" lead of the MPT-8B's output is fused to prevent damage to the relay under almost any conditions a user might cause such as excessive current, incorrect wiring, etc. The MPT-8B has built-in transient protection for the mercury wetted relay contacts which eliminates the need for external or off-the-board transient suppressors.

All component parts of the MPT-8B, which have power applied to them with the exception of the input/output terminal strip, are enclosed in a polycarbonate cover for maximum protection. The mounting base plate is also made of polycarbonate and offers excellent electrical insulation. When it is necessary to totalize more than 8 meters several MPT-8B's may be cascaded. When this is done the factory should be first consulted because while long term accuracy is not affected short term readings will jump, thus masking instantaneous demand calculations.

SOLID STATE INSTRUMENTS

a division of Brayden Automation Corp.

6230 Aviation Circle, Loveland, Colorado 80538

Phone: (970) 461-9600 Fax: (970) 461-9605 E-mail: sales@solidstateinstruments.com

MPT-8B SPECIFICATIONS

ELECTRICAL

Power Input: 120 to 277 VAC, burden 10 Ma

Input Signal: Eight sets of 2-wire Form "A" dry contacts."K" lead is common return for all meters; "Y" and "Z" terminals are "pulled-up" to +13 VDC making them compatible with open collector transistors, open drain FETs or virtually any kind of KY pulse initiator - mechanical, electro-mechanical or solid state.

Output: One "dry" Form "C" contact (K, Y, & Z) for energy pulses. Factory fused at 1/2 Amp with 3AG fuses. Mercury-wetted contacts have a maximum output rating of 500 VDC or 350 VAC, 2 Amps break, 5 amps carry. The maximum power rating of the contacts is 100 VA.

Contact Resistance: 50 milliohms maximum; 12 to 14 typical

Insulation Resistance: 50 megohms typical

Operate and Release Time: 2.5 milliseconds typical operate; 3.0 milliseconds typical release

MECHANICAL

Mounting: Within 30 degrees of vertical

Size: 3.50 inches wide, 7.20 inches high, 1.50 inches deep

Weight: 13 ounces

TEMPERATURE

Temperature Range: -38° C to +70° C, -36.4° F to +158° F

Humidity: 0 to 98% non-condensing

OPTIONS

Input Voltages: Contact Factory



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6230 Aviation Circle
Loveland, CO 80538

(970) 461-9600 • (888) 272-9336
FAX (970) 461-9605
email: info@solidstateinstruments.com
www.solidstateinstruments.com

Local Representative