



Power Monitor

M850-CTP

Plug & Play Multifunction Meter



M553-CTP

The new M850 range of multifunction meter with LCD display offers a complete 3-phase metering system in a standard 96 x 96mm DIN case. It can be used on any low voltage system with a wide range of inputs. This meter is self-powered so the auxiliary is taken from the phase to neutral voltage.

The new display has a customer-selectable back light with user selectable options of green, blue or white. An additional new feature gives the user the ability to wire the CT quicker, easier and safer with a mA current transformer. This new meter comes with RS485 (MODBUS) communication and Pulsed Output as standard.

Communication

The unit comes complete with RS485 communications and Pulsed Output.

The RS485 enables remote reading of up to 32 multifunction meters on a 2-wire bus using the MODBUS protocol. The MODBUS protocol allows the multifunction meter to be used with PC, PLC, RTU, data loggers and SCADA programs.

The Pulsed Output via a relay can be assigned to W.h or Var.h.

Controls and Programming

The four front control buttons are used for scrolling up or down through the parameters being measured and displayed. These buttons also allow programming of different current and voltage transformer ratios, demand times, baud rates, etc.

Display

The unique 3 color option LCD FSTN display is designed to be read in a variety of conditions over a wide viewing angle and distance. There are 3 color options of back lighting available: blue, green or white. These are user-selectable through the front control buttons.

Memory

Current ratios, demand time periods and calibration data is stored in a non-volatile eeprom memory. In case of power down (power loss) conditions, this data is retained.

Electrical System Types

The M850-CTP is suitable for use on 3-Phase 4-Wire (Unbalanced Loads only)

MEASURED PARAMETERS

- Phase Voltage (V)
- Line to Neutral Voltage (V)
- Phase Current (I)
- Frequency (Hz)
- Active Power (W)
- Reactive Power (VAr)
- Apparent Power (VA)
- Active Energy (W.h)
- Reactive Energy (Var.h)
- Power Factor (PF)
- Instantaneous Demand Amp
- Instantaneous Demand Apparent Power
- Instantaneous Demand Active Power
- Maximum Demand Amps
- Maximum Demand Active Power
- Maximum Demand Apparent Power
- Neutral Current

What's New!

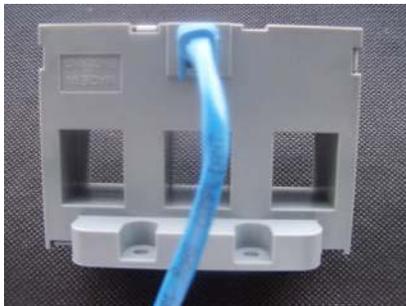
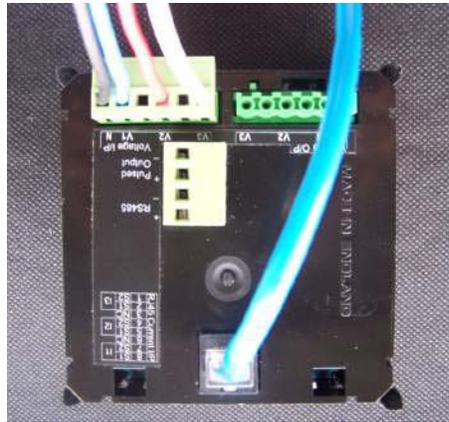
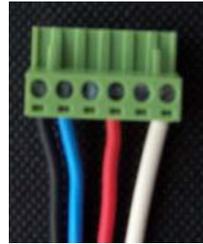
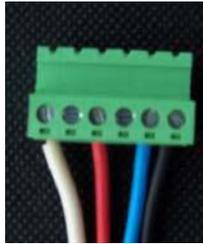
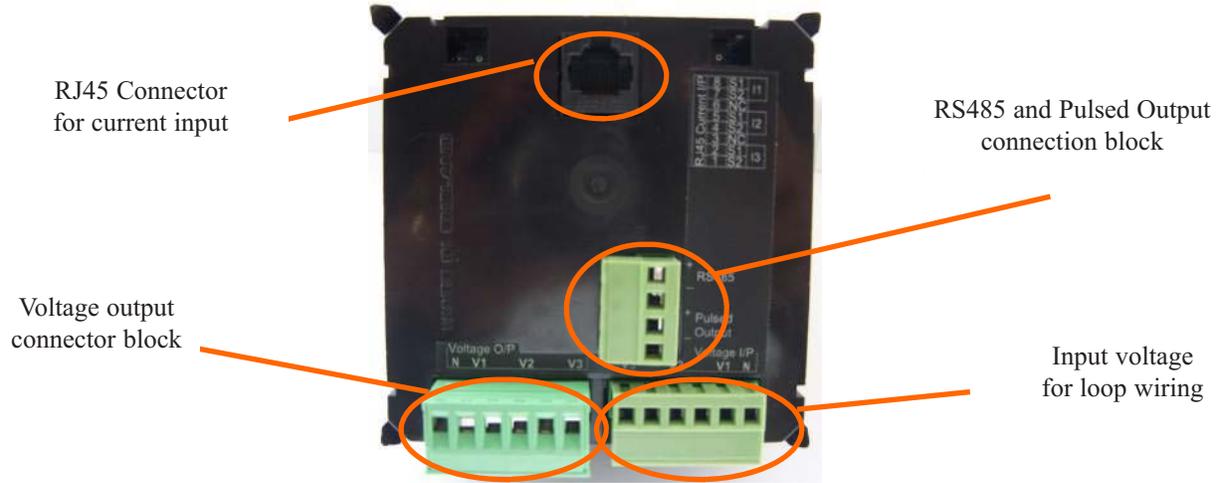
Products constantly update. All specifications are subject to change without notice.
For more information on this product, please contact:

PC&S, Inc. at +1 (800) 523-9194 or +1 (973) 448-9400

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M850-CTP Multifunction Meter

WIRING ARRANGEMENTS

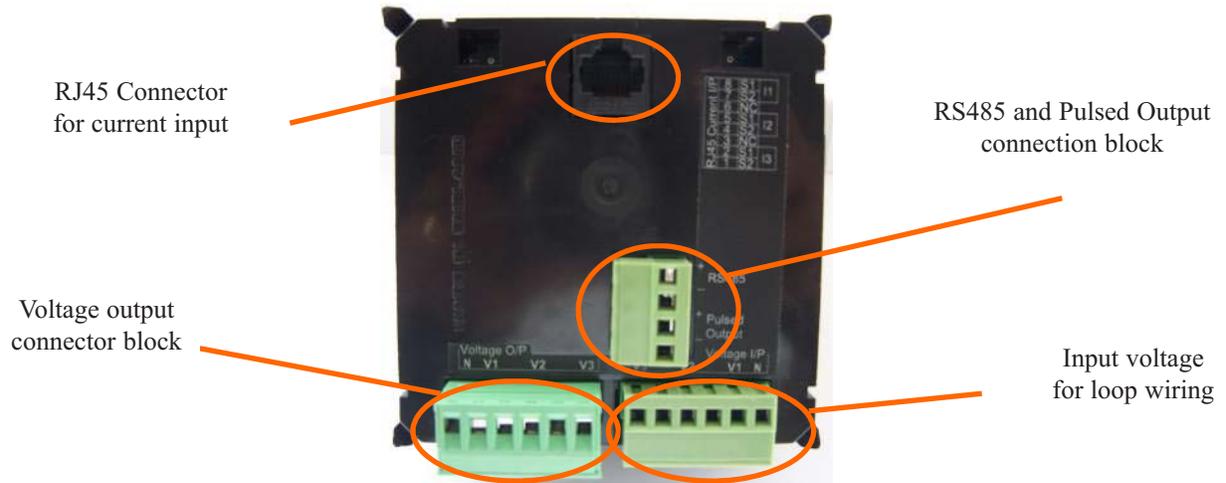


3-Phase current transformer with RJ45 connector block



M850-CTP Multifunction Meter

WIRING ARRANGEMENTS



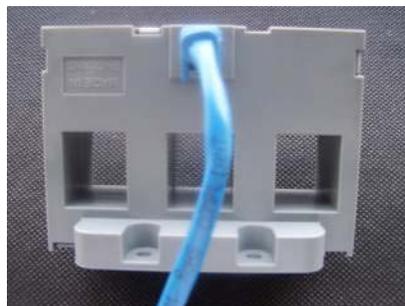
RJ45 to 8-pin terminal block used when 3-phase CT is not suitable for the application. Ideal for retrofitting (split-core CT).



Standard CAT45 lead of various sizes available (upon request)



MilliAmp current transformer



M850-CTP Multifunction Meter

ELECTRICAL SPECIFICATIONS

INPUT	
Rated Un	28V to 330V (L-N)
Overload	800V Continuous
Burden	0.5VA
Rated In	200mA via special CTs
Overload	10x In for 1 second
Frequency	45 / 65Hz
Input Working Range: Voltage & Current	2% to 100%

ACCURACY	
Specified at 23°C 10% - Un 10% - In	
Volts & Amps	0.5% of reading ± 2 digits
Frequency	0.1 Hz ± 1 digit
Active Power	1% of reading ± 2 digits
Reactive Power	1% of reading ± 2 digits
Apparent Power	1% of reading ± 2 digits
Power Factor	1% of range
Energy	IEC 1036 Class 1

AUXILIARY VOLTAGE	
This unit is self-powered and uses the Line-to-Neutral voltage as its power source.	

GENERAL SPECIFICATIONS

ENVIRONMENTAL	
Working Temperature	-4°F to +140°F (-20°C to +60°C)
Storage Temperature	-22°F to +176°F (-30°C to +80°C)
Relative Humidity	0-95% non-condensing
Shock	30G in 2 planes

APPLIED STANDARDS	
General	IEC 688 BSEN60688 BS4889 IEC 359
EMC	Emissions BSEN50081/1 Emissions BSEN50082/2
Safety	IEC 1010, BSEN601010

DISPLAY	
Custom	LCD
Backlight	Blue, Green or White
Update Time	1 second
Response Time	less than 10ms

ENCLOSURE	
Standard DIN Case	DIN 96 x 96mm
Panel cutout	92 x 92mm ±0.8mm
Panel mount	via 4 retaining corner brackets
Material	Black Polycarbonate
Terminals	1 mm ² JR45
IP Rating (Front)	IP52 / NEMA
IP Rating (Case)	IP30 / NEMA
Weight (basic meter)	0.7 lbs. (320 grams)

CASE DIMENSIONS	
Bezel Size	96 x 96mm
Depth of meter	65mm

INSULATION	
Insulation Category	III (280V,AC L-N)
Degree of Pollution	2
Rated Impulse	
Withstand Voltage	IEC 80947-1-V imp; 4kV
Meter Front	Class II
Electrical Security	IEC 61010-1

ELECTROMAGNETIC COMPATIBILITY	
Immunity to:	
Electrostatic Discharges (ESD)	IEC 61000-4-2-Level III
Radiated Radio-Hz Fields	IEC 61000-4-3-Level III
Electrical Fast Transient/Bursts	IEC 61000-4-4-Level III
Impulse Waves	IEC 61000-4-5-Level III
Conducted Disturbances	IEC 61000-4-6-Level III
Voltage Dips & Short interruptions	IEC 61000-4-11-Level III
Emissions to:	CISPR11-Class A
Conducted and Radiated	

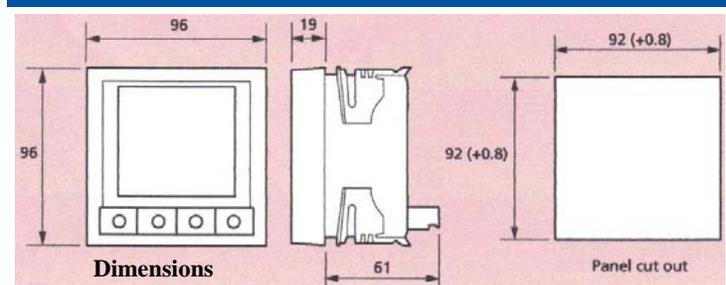
ADDITIONAL INFORMATION

RS485 (MODBUS)	
Baud Rates	38400, 19200, 9600, 4800 or 2400
Parity	odd, even, no parity
Address	1 to 247
Response Time	less than 10ms

PULSED OUTPUT	
Programmable to work with either W.h or VAr.h	

OPTIONAL PARTS	
Voltage Looping wire	
Category 5E RJ45 Cable to suit required size	
Split-Core CT connector block (RJ45 to 8-pin terminal)	
3-phase current transformer (3 sizes ranging from 60A to 630A)	

DIMENSIONS



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For more information and certifications, please contact:

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