M850-LCD MULTIFUNCTION METERS

DESCRIPTION

The new range of Hobut multifunction panel meters feature 96 x 96mm moulded cases and selectable three colour backlight LCD screens. The range is easy to use, features user-programmable CT & VT ratios, and can be used on any single or 3 phase system with any input voltage without re-programming.

APPLICATION

The range is a cost effective replacement for traditional panel meters and is suitable for low, medium and high voltage control panels, gensets, building management systems, power management and more.



RANGE

STANDARD FUNCTIONS:	
Phase Voltage (V)	Reactive Energy (VArh)
Phase to Neutral Voltage (V)	Power Factor (PF)
Phase Current (I)	Instantaneous Amp Demand
Frequency (Hz)	Instantaneous Watt Demand
Active Power (W)	Instantaneous VA Demand
Active Energy (kWh)	Maximum Amp Demand
Reactive Power (VAr)	Maximum Watt Demand
Apparent Power (VA)	Maximum VA Demand

PROGRAMMABLE FUNCTIONS

All models feature the following user-programmable functions. • Selectable Screen Colour

• Current Transformer Ratio

• Voltage Transformer Ratio

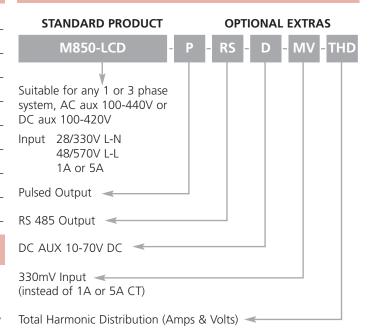
• Baud Rate, Parity, Stops

• Single or 3 phase system

CE

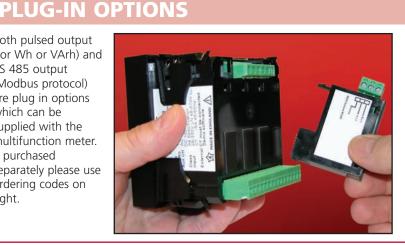
- programming

ORDERING INFORMATION



Order example: a standard product with RS 485 output is part number M850-LCD-RS

Both pulsed output (for Wh or VArh) and RS 485 output (Modbus protocol) are plug in options which can be supplied with the multifunction meter. If purchased separately please use ordering codes on right.





Pulsed Output when ordered separately use part PULSE-M850



RS 485 Output when ordered separately use part RS485-M850

HOBUT



• AC or DC AUX • 1A or 5A CT

- Input voltage range 28-570V
- RS485 address, 1-247
- Security code access for

M850-LCD MULTIFUNCTION METERS

HOBUT

3kV RMS 50Hz for 1 minute between

1kV between case, input, aux, relay

EHF 2.5kV 1Mhz complying to IEC255-4

IEC688, BSEN60688, BS4889, IEC359

BSEN50081/2, BSEN50082/2

IEC1010, BSEN601010

EMC 5kV transient complies with

case, input and aux.

IEC801/ EN55020 HF

Surge withstand: IEC801/EN55020 Ansi C37.90A

Protection class II: Complying to IEC348 / BS4753 /

0-60°C

Relative humidity: 0-95% non condensing

0.7ka

Black polycarbonate case to UL94V0

-40 to +85°C

30G in 2 planes

DIN57411 / VDE

output & RS485 output.

SPECIFICATIONS

ACCURACY

Volts/Amps: Frequency: Active Power: Power Factor: Energy: INPUT Rated Un: Overload: Burden: Rated In: Overload: Burden: Auxiliary:

Frequency:

Brightness:

Wh or VArh:

Pulse output: Pulse duration:

DISPLAY

Digits:

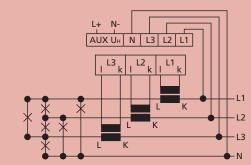
Size:

0.5% of reading 0.1 Hz 1% of reading Apparent Power: 1% of reading 2% of range IEC 1036 Class 1 28-330V LN, 48-570V L-L 800V continuous 0.5VA per phase 0.5-6A 10 In for 1 sec 0.5VA per phase 100-440V AC / 100-420V DC (or 10/70V DC) 45/65Hz

> 3 lines 9999 14.2mm 7 segment user adjustable

OUTPUT RELAY SPNO rated 50V 150mA 5W AC/DC programmable from 40msec-200msec

CONNECTION DIAGRAM



		VOLTAGE				CURRENT		
	L1	L2	L3	Ν	L1	L2	L3	
1ph	1	-	-	1	\checkmark	-	-	
1ph 3W	\checkmark	\checkmark	-	\checkmark	\checkmark	\checkmark	-	
3ph 3W	\checkmark	\checkmark	1	-	\checkmark	-	\checkmark	
3ph 4W	~	1	\checkmark	1	1	\checkmark	1	
3ph 3W BAL	1	1	1	-	1	-	-	
3ph 4W BAL	\checkmark	-	-	1	\checkmark	-	-	
Linused Voltage terminals are internally connected								

Unused Voltage terminals are internally connected

INSULATION

Test Voltage:

Impulse test:

Interference:

STANDARDS

ENVIRONMENT

Working temp:

Storage temp:

General:

EMC:

Safety:

Shock:

Weight:

MATERIAL

DIMENSIONS (mm) with plug in option fitted 96 19 82 92 (+0.8) 92 (+0.8) 96 0 0 Ο 0 Panel cut out 61

Our policy is one of continuous development and therefore specifications may change without notice.

HOWARD BUTLER LTD

CROWN WORKS, LINCOLN ROAD WALSALL WS1 2EB ENGLAND

Tel: 01922 640003 Fax: 01922 723626 International Tel: +44 1922 640003 E-mail: sales@hobut.co.uk Web: www.hobut.co.uk