

MULTIFUNCTION METERS

DESCRIPTION

The MULTIDIN range of multifunction panel meters feature 96 x 96mm sizes complete with backlit LCD or LED screen. The range is easy to use and features user-programmable CT & VT ratios.

APPLICATION

The MULTIDIN 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: | M804 LCD screen | M801 LCD screen | M802 LCD screen | M812 LED screen |
|-------------------------------------|--------------------|--------------------|--------------------|--------------------|
| Phase Voltage (V) | ✓ | ✓ | ✓ | ✓ |
| Phase Current (I) | ✓ | ✓ | ✓ | ✓ |
| Frequency (Hz) | ✓ | ✓ | ✓ | ✓ |
| Active Power (W) | | ✓ | ✓ | ✓ |
| Active Energy (kWh) | ✓ | | ✓ | ✓ |
| Reactive Power (VAR) | | | ✓ | ✓ |
| Apparent Power (VA) | | ✓ | ✓ | ✓ |
| Reactive Energy (VARh) | | | ✓ | ✓ |
| Power Factor (PF) | | | ✓ | ✓ |
| Average Amp Demand | | | ✓ | ✓ |
| Average Watt Demand | | | ✓ | ✓ |
| Average VA Demand | | | ✓ | ✓ |
| Maximum Amp Demand | | | ✓ | ✓ |
| Maximum Watt Demand | | | ✓ | ✓ |
| Maximum VA Demand | | | ✓ | ✓ |
| Total Harmonic Distortion Phase (V) | | | | ✓ |
| Total Harmonic Distortion Phase (A) | | | | ✓ |

PROGRAMMABLE FUNCTIONS

All models feature the following user-programmable functions:

- Current Transformer Ratio
- Voltage Transformer Ratio
- Baud Rate
- Custom Screen
- Parity
- Stops
- RS485 address, 1-247

OPTIONS

- RS485 Modbus protocol
- RS232 ASCII
- Pulse output
- Input voltage 57-500V
- DC auxiliary voltage
- Neutral current measurement

ORDERING INFORMATION

Please specify the following information on your order:

- Part number.
- System: MD1 (for LCD) LD1 (for LED) - 1 phase
MD4 (for LCD) LD4 (for LED) - 3 phase 3 wire unbalanced load
MD9 (for LCD) LD9 (for LED) - 3 phase 4 wire unbalanced load

- Input voltage
- Auxiliary voltage
- Frequency
- Options

Order example:

| PART | SYSTEM | INPUT VOLTAGE | INPUT CURRENT | AUX | OPTIONS | FREQUENCY |
|------|--------|---------------|---------------|------|---------|-----------|
| M804 | MD9 | 230/400V | 5A | 230V | RS485 | 50Hz |

MULTIFUNCTION METERS

HOBUT

SPECIFICATIONS

ACCURACY

Volts/Amps: 0.5% of reading
 Frequency: 0.1 Hz
 Active Power: 1% of reading
 Apparent Power: 1% of reading
 Power Factor: 2% of range
 Energy: IEC 1036 Class 1
 Total Harmonic Distortion \pm 1% of range

INPUT

Rated Un: 57.8 to 600V
 Range: 20-120% Un
 Burden: 0.5VA per phase
 Overload: 1.5 x Un continuous
 4 x Un for 1 second
 Rated In: 1 or 5A
 Range: 20-120% In for M804/M801
 10-120% In for M802
 Burden: 0.5VA per phase
 Overload: 4 x In continuous
 50 x In for 1 second
 Frequency: 45/65Hz

OUTPUT RELAY

Wh or VAh: SPNO rated 50V
 Pulse output: 150mA 5W ac/dc
 Pulse rate: Automatically set
 Pulse duration: Programmable from 20msec - 200msec

INSULATION

Test Voltage: 3kV RMS 50Hz for 1 minute between case, input, aux.
 1kV between case, input, aux, relay output & RS485 output.
 Impulse test: EMC 5kV transient complies with IEC801 / EN55020 HF
 Surge withstand: IEC801/EN55020 Ansi C37.90A
 Interference: EHF 2.5kV 1Mhz complying to IEC255-4
 Protection class II: Complying to IEC348 / BS4753 / DIN57411 / VDE

STANDARDS

General: IEC688, BSEN60688, BS4889, IEC359
 EMC: BSEN50081/2, BSEN50082/2
 Safety: IEC 1010, BSEN601010

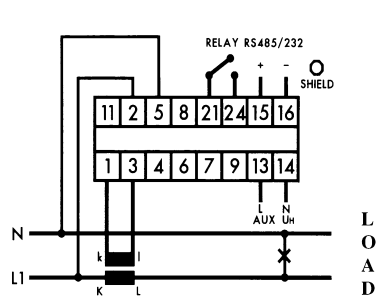
ENVIRONMENT

Working temp: 0-50°C
 Function temp: -5-60°C
 Storage temp: -10-65°C
 Temp coefficient: 0.01% per °C
 Relative humidity: 0-95% non condensing
 Shock: 10G in 3 planes

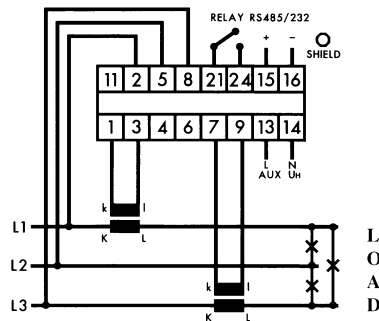
MATERIAL

Black polycarbonate case to UL94V0
 Weight : 0.7kg

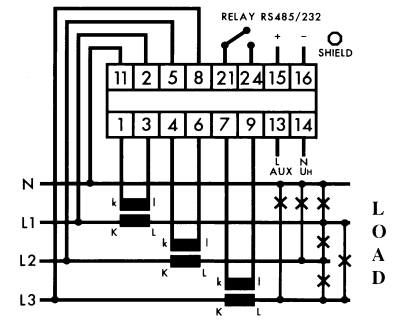
CONNECTION DIAGRAMS



Single Phase

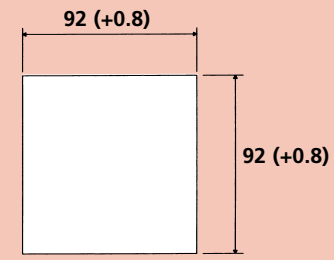
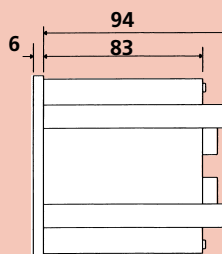
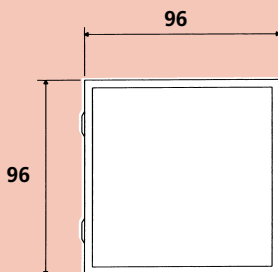


3 phase 3 wire unbalanced load



3 phase 4 wire unbalanced load

Dimensions (mm)



Panel cut-out

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

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