

multitek



C-Tran

**Combined 3 phase current transformer and multi-
function power transducer**

C-TRAN

The C-Tran (M552) is a combined 3 phase multifunction AC power transducer and current transformer.

The C-Tran is fully programmable through either of its communication ports.

PARAMETERS MEASURED

- * Phase Voltage (V)
- * Line Voltage (V)
- * Phase Current (I)
- * Frequency (Hz)
- * Active Power per phase (W)
- * System Active Power (W)
- * Reactive Power per phase (VAr)
- * System Reactive Power (VAr)
- * Apparent Power per phase (VA)
- * System Apparent Power (VA)
- * Import Active Energy (W.h)
- * Export Active Energy (W.h)
- * Import Reactive Energy (VAr.h)
- * Export Reactive Energy (VAr.h)
- * Apparent Energy (VA.h)
- * Ampere Energy (A.h)
- * Power Factor per phase (P.F.)
- * System Power Factor (P.F.)
- * Amp Demand (Ad)
- * Maximum Amp Demand (Max Ad)
- * Import Watt Demand (Wd)
- * Maximum Watt Demand Import (Max Wd)
- * Export Watt Demand (Wd)
- * Maximum Watt Demand Export (Max Wd)
- * VA Demand (VAd)
- * Maximum VA Demand (Max VAd)
- * Neutral Current
- * Hours Run

ACCURACY

The accuracy of the M552 is Class 0.2 to IEC688 over the range 10% to 120% In. and for voltages from 100V to 120% of nominal.

For Active and Reactive energy the accuracy is 1% of reading to IEC 1036.

The accuracy of the current transformer is Class 0.5 for the range 10% to 120% In.

MEMORY

All data including energy registers, current and voltage ratios and calibration data is stored in a non volatile eeprom.

COMMUNICATION

Port 2 :

The main communication port.

It uses the popular Modbus protocol to retrieve measurements and to change the transducer's operating parameters. It enables the connection of a host computer, PLC, RTU, Data logger etc.

Port 1:

This port has a fixed data format. It can also retrieve measurements and set the transducer's operating parameters. Only the baud-rate and endian format can be changed on this port.

Special LCD meter M850-LCM can be connected to this port.

A Red LED is provided to indicate power is present and unit is communicating correctly.

PROGRAMMING

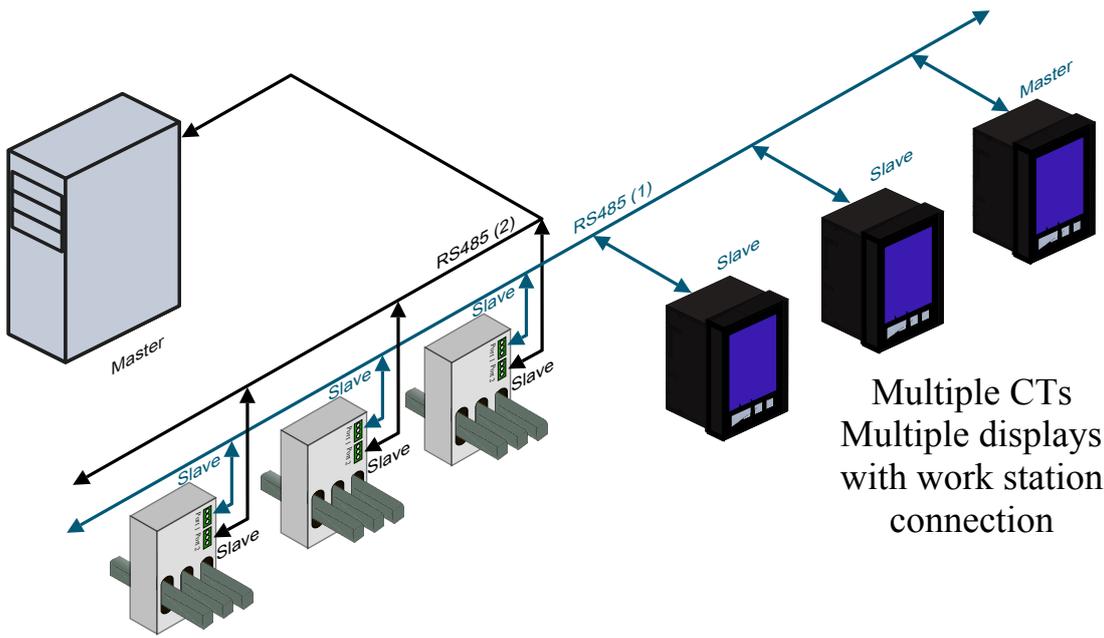
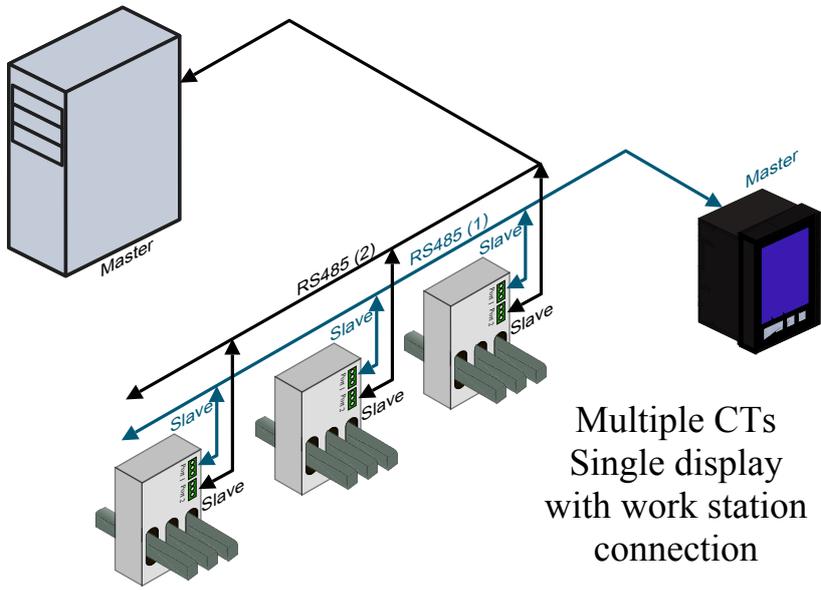
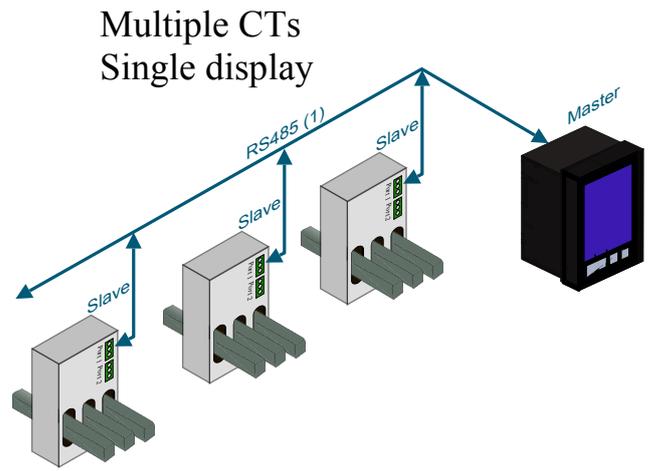
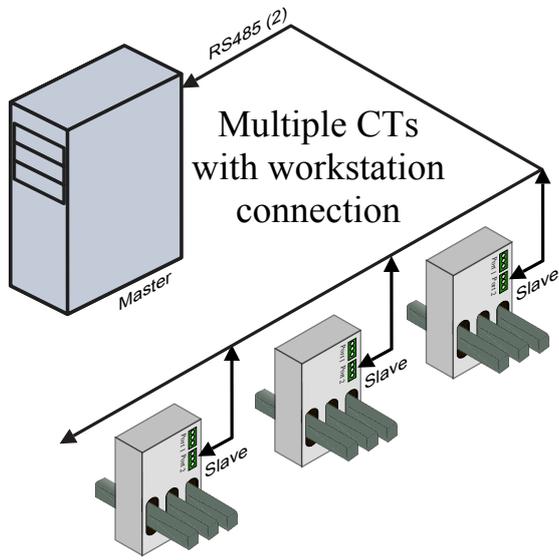
Setup and monitoring software MultiView is available from multitek www.multitek-ltd.co

MultiDisplay M850-LCM

The M850-LCM can be used as a master or as a slave to control or monitor C-Trans. If used as a master it can control and monitor upto 32 C-Tran on a Modbus network and program each individual C-tran. All parameters measured by a C-tran can be displayed.

ORDERING INFORMATION

<i>Information required</i>	<i>Example</i>
<i>Product Code</i>	<i>M552-CTR</i>
<i>Nominal input current</i>	<i>100A</i>
<i>Product Code</i>	<i>M850-LCM</i>



Examples of possible combinations using Ports 1 and 2

GENERAL SPECIFICATION

INPUT

Rated Un *Directly connected voltages:
(3ph4W) 100V to 330VL-N MAX
(3ph3W) 100V to 440VL-L MAX*

Range *280V or 140V nominal*

Rated In Range *dependent on CT primary (see options)*

Overload *Absolute maximum input:
4 x In*

Frequency *50/60 Hz. Nominal range 45/65Hz*

OPTIONS

3 Phase Current Options:
100A, 125A, 150A, 160A, 200A, 250A

ACCURACY

Specified @ 23°C *100V-100% Un, 10%-100%In*

Parameters unless stated *Class 0.2 to IEC688*

Frequency *Class 0.1Hz to IEC688*

Power Factor *Class 0.5 to IEC 688*

Active & Reactive Energy *1.0% of reading IEC1036*

Current Transformer *Class 0.5*

INSULATION

Test Voltage *4 kV RMS 50 Hz for 1 min
voltage inputs to case.
3kV RS485 to case and voltage
inputs.
(There is no isolation between
Port 1 and Port 2)*

Impulse Test *EMC 5kV transient complying
with IEC 801/EN 55020 HF*

APPLIED STANDARDS

General *IEC 688 BSEN60688,
BS4889, IEC 359*

EMC *Emissions EN61326-1
Immunity EN61326-2*

Safety *EN61010-1*

AUXILIARY

Self-powered: *maximum 440V*

Burden *<10VA*

ENVIRONMENTAL

Working Temperature *0 to +60 deg C*

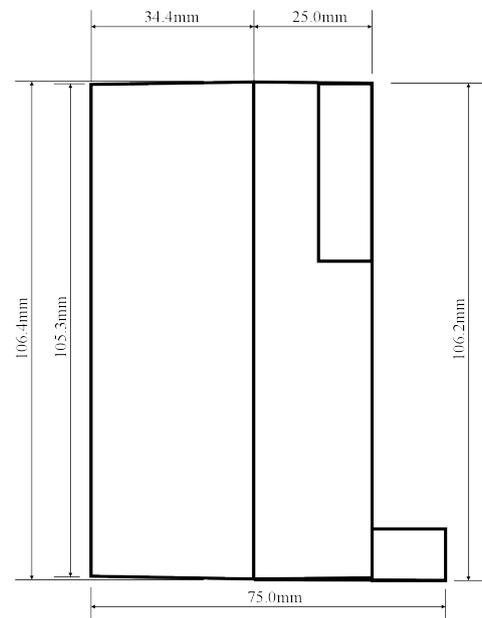
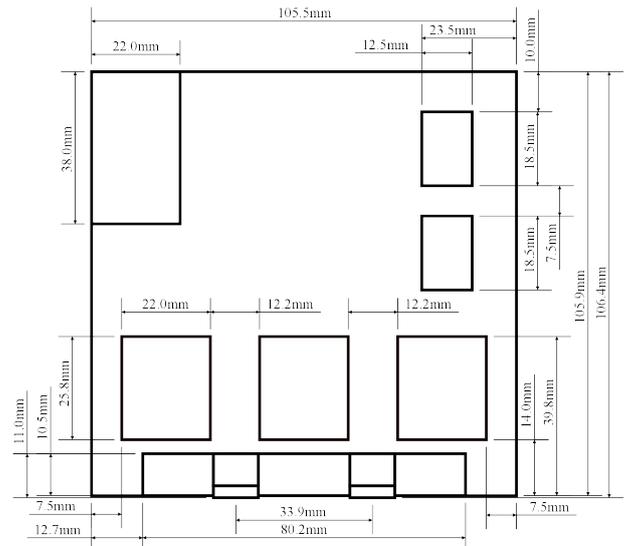
Storage Temperature *-30 to +65 deg C*

Temperature Coefficient *0.01% per deg C*

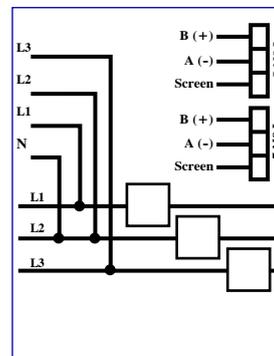
APPROVALS

UL, C-UL *Pending*

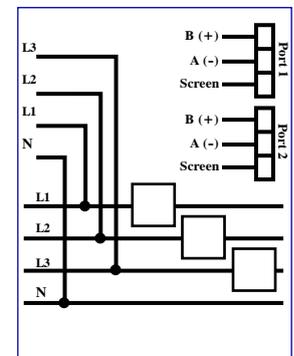
CASE DIMENSIONS



CONNECTION DIAGRAMS



3 Phase 3 Wire
Unbalanced Load



3 Phase 4 Wire
Unbalanced Load

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