



DTS Display

Graphic Message Center

The DTS Display Graphic Message Centre from Measurlogic provides the user with a powerful graphical man-machine interface to the DTS range of electrical measurement devices. The large, **backlit LCD** display is designed to provide high visibility and is ideal for distant viewing, when required.

This powerful panel-mount display unit is ideal for use in control centres, substations, power stations and similar industrial environments which require high quality and high accuracy without compromising on robustness, quality and availability.

DTS Display is easily configured via Measurlogic's DTS View software system and displays up to 8 different pages of variable data, with each page displaying up to 3 variables. In addition, associated with each of these variable pages, DTS Display provides an extra 3 pages of static data pertaining to the variable data page. This static data displays nominal values as well as high and low alarm settings.

DTS Display allows the user to operate the DTS range of electrical measurement products in a stand-alone mode, if so required. Alternatively, it provides the user with a powerful and highly accurate local man-machine interface.

Variable Data Display

- Up to 8 pages
- Each page displays up to 3 variables

Static Data Display

- 3 pages of static data for each variable data page
- Nominal value display
- High alarm setting display
- Low alarm setting display

High Visibility Displays

- 128 x 64 pixels
- Backlit display
- Large text for monitored data and small text for information

User-friendly Controls

- Front-panel, touch buttons
- Simple page navigation

Communications

- RS 232 port
- DTS Talk protocol
- Easy integration into DTS electrical measurement systems

Easy Configuration

- Configuration via PC-based DTS View software

- Connects to DTS 305, 300 and 100 units
- Front Panel mount, 96 x 96 mm enclosure
- Large LCD Graphic Display
- 128 x 64 Pixels
- Programmable Display
- Backlit
- RS 232 Communication
- Configurable via DTS View



Physical Description

DTS Display is housed in a hardened, fire-retardant, plastic enclosure measuring 96mm / 3.76" x 96mm / 3.76" x 63mm/2.48" (h x w x d). The LCD itself measures 37mm/1.46" x 69mm/2.72" (h x w). The rear cover of the enclosures is removable to provide access to the display and internal circuitry, should this be required.

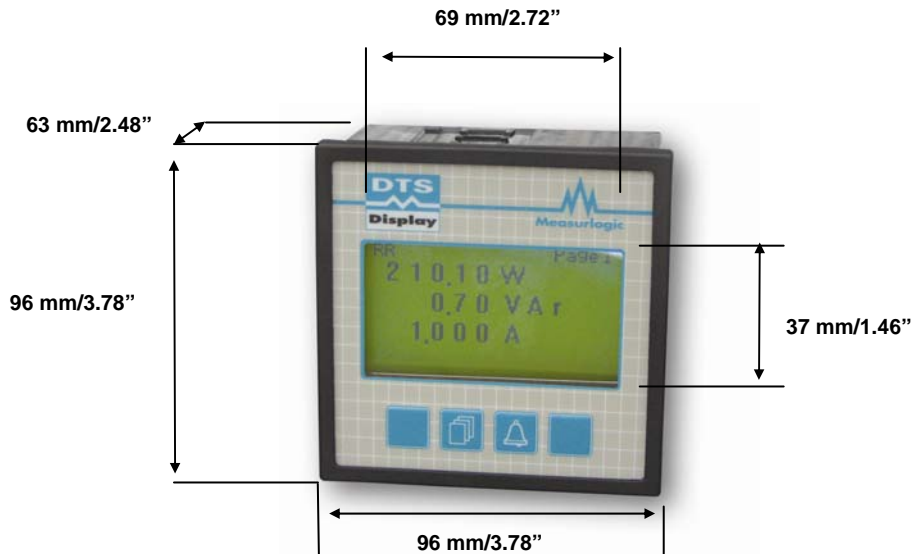
DTS Display has 2 front-panel touch buttons for control of the display. The functions of these buttons are described below.

DTS Display provides both large text and small text data. Large text data is 16 pixels high and small text is 8 pixels high. DTS Display is a panel mount device and requires a cut-out of

92mm/3.62" x 92mm/3.62" in a flush surface. The front panel is IP 54 rated with the terminals rated IP 40.

DTS Display can operate as a local man-machine interface for DTS electrical measurement systems which are in a stand-alone mode. Alternatively, DTS Display may be used in parallel with a larger local displays or remote SCADA man-machine interfaces. Connection to other DTS modules, such as DTS 305, 300 and DTS 100, is easily made via DTS Display's Serial port.

Dimensions



Touch Button Controls



Select Next
Variables Page



Select Next
Static Page



Installation & Guarantee

Mounting

DANGER!

Hazardous voltages present! Installation, commissioning and maintenance should be undertaken by trained and authorised personnel only!

Environmental Conditions

The DTS Display is a very robust device. However, any exposure to extreme conditions should be avoided. For this reason, the DTS Display should be mounted in a dry and dirt-free environment and away from any sources of atmospheric contamination, extreme temperatures (see *Operating Conditions*) or high electrical fields.

Flush Surface Mounting

DTS Display is a panel mounted device and requires a cut-out of 92mm/3.62" x 92mm/3.62" in the flush surface into which it is to be mounted.

Operating Conditions

DTS Display operates as specified in this document under the following conditions:

Temperature	0°C to 55°C (32°F to 131°F)
Relative Humidity	up to 90% below 35°C (95°F) up to 75% above 35°C (95°F)
Altitude	0 to 2500 amsl

Wiring & Connections

Communication Wiring

The DTS Display communicates to DTS electrical measurement devices via its RS 232 port located at the rear of the device. To connect these devices, use a DTS Display communications cable between the DTS 305/300/100 local serial port and the DTS Display serial port.

Communication wiring terminals accepts 2.5 mm² (12 awg) wire. The wires are connected by means of screw terminals. Screws do not bear down directly on the input wires, but by means of clamps.

WARNING!

DTS devices should only be linked together while the devices are de-energised. Disconnect or switch off all auxiliary supplies to these devices before commencing work.

Auxiliary Supply

The DTS Display operates normally when powered by an auxiliary supply in the following ranges:

- 90 to 265V AC/DC
- 18 – 70 Vdc

Guarantee

All DTS devices are guaranteed against defects in material and workmanship for a period of one (1) year from date of purchase.

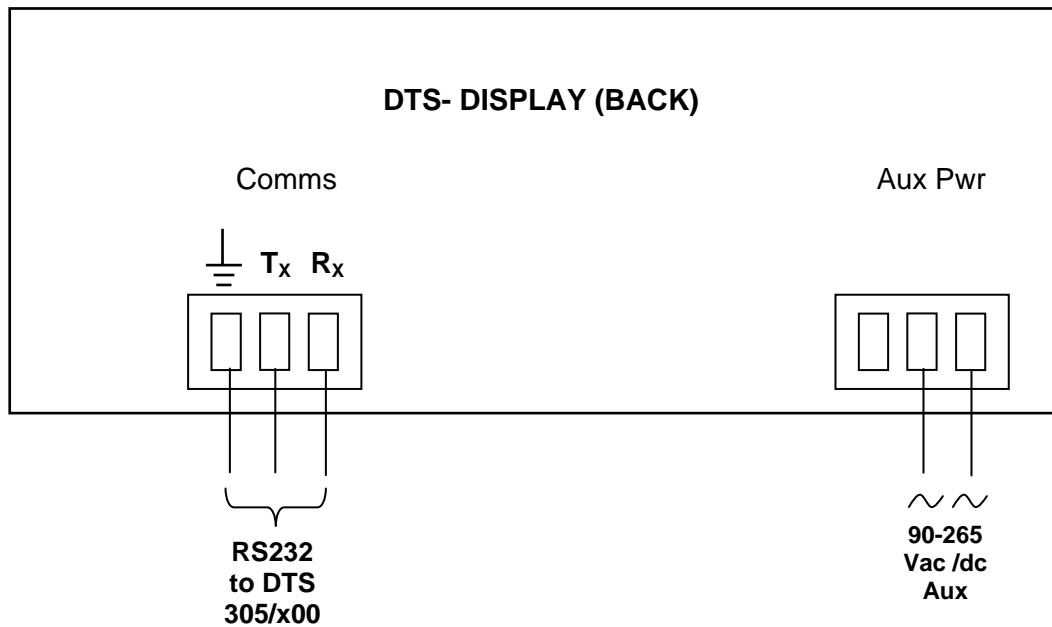
Guarantee Conditions

Measurlogic will repair or replace, at its option, any DTS device found to be defective within the guarantee period, providing the equipment has been installed, wired, programmed and operated in accordance with the manufacturer's instructions

The guarantee will be invalid if any unauthorised alterations are made to the devices, or if the devices has been abused or mishandled. Damage due to static discharges will void the guarantee, as will application of voltages, currents or auxiliary supplies outside the specified ratings of the devices' inputs.

Under no circumstances shall Measurlogic be liable for consequential damages sustained in connection with any of the company's products.

Connection Diagram



Configuration

Display Configuration

DTS Display is supplied with a factory-set configuration. However, should a different configuration be required, this may be done by the user using the DTS View software package which is supplied free of charge with every DTS Display product

For instructions on the use of the DTS View software, please refer to its operating manual. DTS View will allow the user to set up the following parameters:

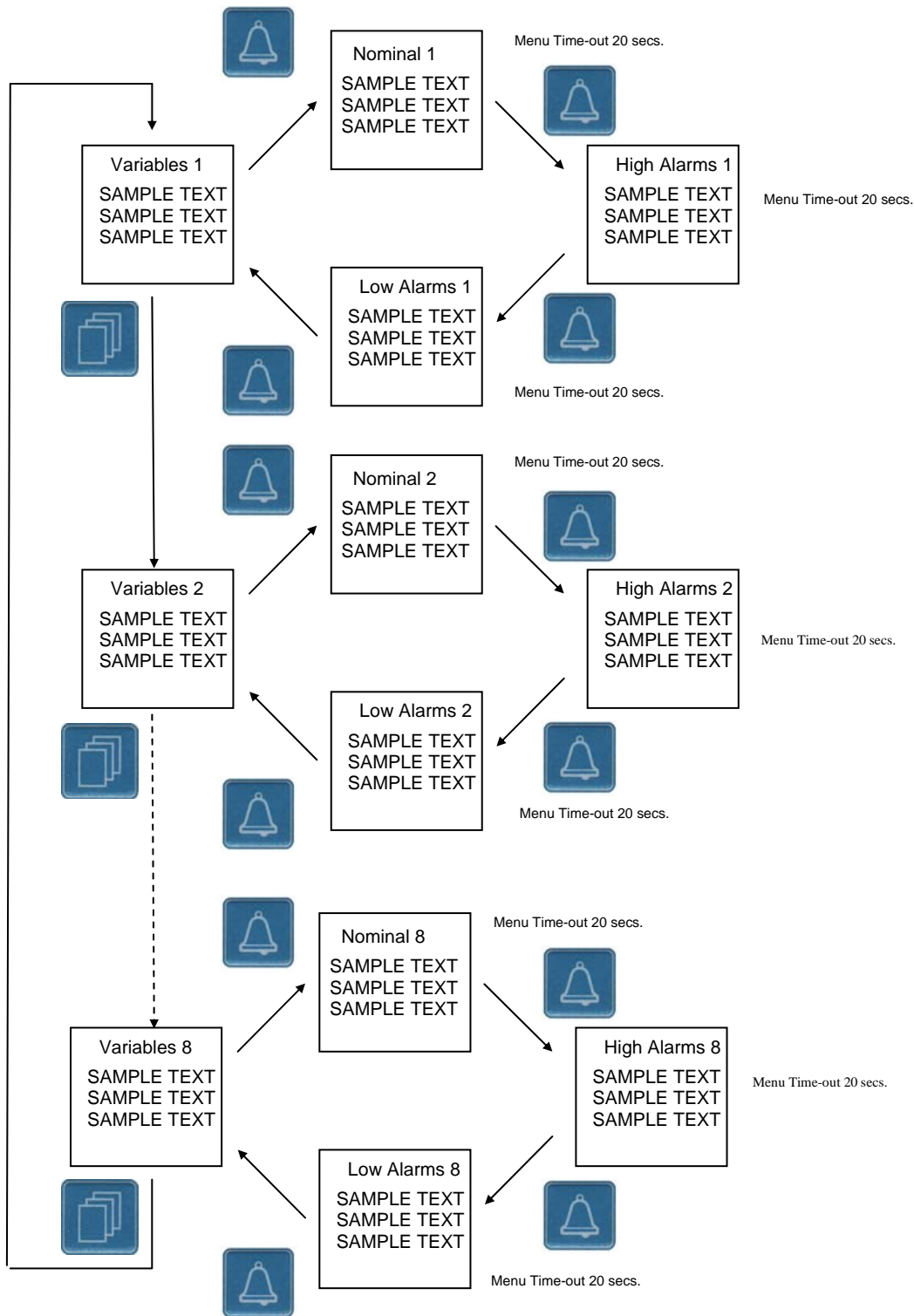
- ◆ Page and Line
- ◆ Electrical Entity – primary or secondary
- ◆ Individual Phase or Totals
- ◆ Selected units
- ◆ Scaling information
- ◆ Upper & lower alarm limits & nominal value

DTS View Software

Please consult the DTS View Manual for detailed instructions. However, this software package is menu-driven and highly user-friendly and most functions are self-explanatory.

Display Map

DTS Display offers 8 pages of variable data, each with an associated 3 pages of static data. A map of the display pages is illustrated below:





Specifications & Ratings

Display

- ◆ LCD
- ◆ Backlit
- ◆ 128 x 64 pixels
- ◆ 8 pages of variable data
- ◆ 3 variables per page
- ◆ 24 pages of static data (3 per variable data page)
- ◆ Static data page time-out after 20 seconds (return to variable data page)

Display Text

- ◆ Large text: 16 pixels
- ◆ Small text: 8 pixels
- ◆ Alarm condition text in “reverse video”

Auxiliary Power Supply

- ◆ 90 - 265V AC/DC
- ◆ 18 – 70 Vdc

Display Controls

- ◆ 2 front panel, touch buttons

Configuration

- ◆ User-configurable
- ◆ Configurable via DTS View software systems

Communication

- ◆ RS 232 port
- ◆ DTS Talk protocol

Temperature

- ◆ 0°C to +55°C (32°F to +131°F)

Relative Humidity

- ◆ up to 90% non-condensing below 35°C (95°F)
- ◆ up to 75% non-condensing above 35°C (95°F)

Housing

- ◆ Panel-mount
- ◆ Fire-retardant plastic enclosure

Standards Compliance

- ◆ CE
- ◆ EN 50081
- ◆ EN 50082



Ordering Information

DTS Display

Model Type

D: DTS Display

Communications Port

1: RS 232

Communications Protocol

01: DTS Talk

Auxiliary Power Supply

1: 90 – 265 Vac/dc

2: 18 – 79 Vdc



To order a DTS Display, simply fill in the Data Sheet below which provides Measurlogic with all the configuration initially required.

Please also consult the following pages for information on the definition of the DTS model number.

Available Measurement Types

RMS Volts	RMS Amps	Active Power	Reactive Power	Apparent Power	Frequency	Active Energy	Reactive Energy	Apparent Energy	Amp Hours	Power Factor
V ₁	I ₁	Watt ₁	VAR ₁	VA ₁	Hz ₁	KWh ₁	KVARh ₁	KVAh ₁	Ah ₁	PF ₁
V ₂	I ₂	Watt ₂	VAR ₂	VA ₂	Hz ₂	KWh ₂	KVARh ₂	KVAh ₂	Ah ₂	PF ₂
V ₃	I ₃	Watt ₃	VAR ₃	VA ₃	Hz ₃	KWh ₃	KVARh ₃	KVAh ₃	Ah ₃	PF ₃
-	-	Watt _{SUM}	VAR _{SUM}	VA _{SUM}	-	KWh _{SUM}	KVARh _{SUM}	KVAh _{SUM}	-	-

Display Data

Page No.	Line	Measurement Type	EU.	Nominal	High Alarm	Low Alarm
1	1					
1	2					
1	3					
2	1					
2	2					
2	3					
3	1					
3	2					
3	3					
4	1					
4	2					
4	3					
5	1					
5	2					
5	3					
6	1					
6	2					
6	3					
7	1					
7	2					
7	3					
8	1					
8	2					
8	3					



ELECTRICAL MEASUREMENT SOLUTIONS

Contact Details

Measurlogic, synonymous with the design and manufacturing of electrical measurement systems for the past 28 years, introduces a flexible and fully configurable range of new generation, digital electrical measurement solutions. Measurlogic has a long and proven track-record of manufacturing, providing and supporting high quality analog electrical measurement products and has rightly been recognised as a world leader in this field.

Measurlogic Inc. can also provide a complete range of power monitors, electrical transducers, Power Quality Recorders and Analyzers as well as the DPI and VDC range of Voltage Dip Proofing Inverters.

DTS is a family of products which caters for all electrical measurement applications - from the most simple single-phase measurements to the most advanced multi-phase monitoring and control applications. DTS provides for the needs of all users in all applications - from the power supply industry to power users, from energy management consultants to system planners, from managers to engineers, from maintenance technicians to project leaders, from refurbishment of existing plants to new installations.

Note : Information and specifications in this document are subject to change at any time.



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