

# TS8000

## HMI Touchscreens



Products  
...with a Vision



ENGINEERING **YOUR** SUCCESS.

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## TS8000

### WEB-ENABLED graphic operator interface stations

- On-board comms support for over 30 popular PLC Drivers
- Powerful graphic displays
- Direct Communications with all SSD Drive products
- Built-in Ethernet
- Remote monitoring and control



Example: TRENDING

6" TS8006

## TS8000

### Built-in multi-language programming

- English
- Spanish
- Dutch
- French
- German
- Italian

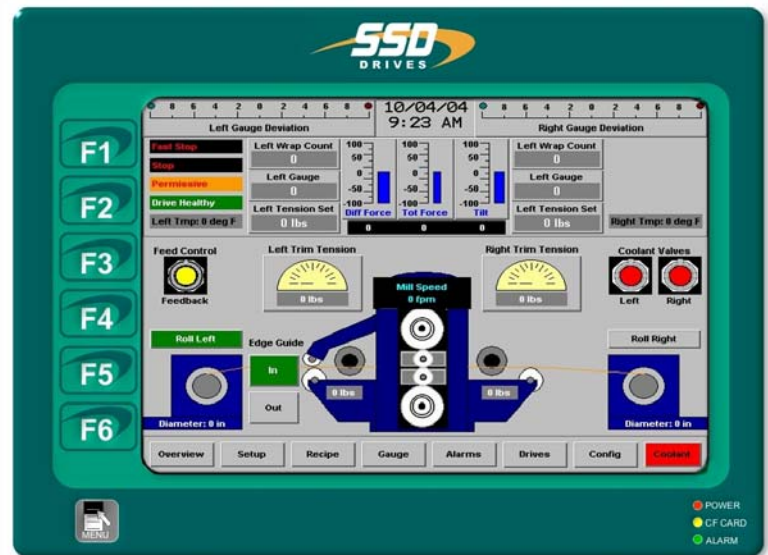
speaks your language...



### Unicode\* support for:

- Japanese
- Thai
- Korean
- Chinese (Simplified and Traditional)
- others available

\* (Unicode support requires Windows language packs to be installed)



Example: REDUCING MILL

8" TS8008

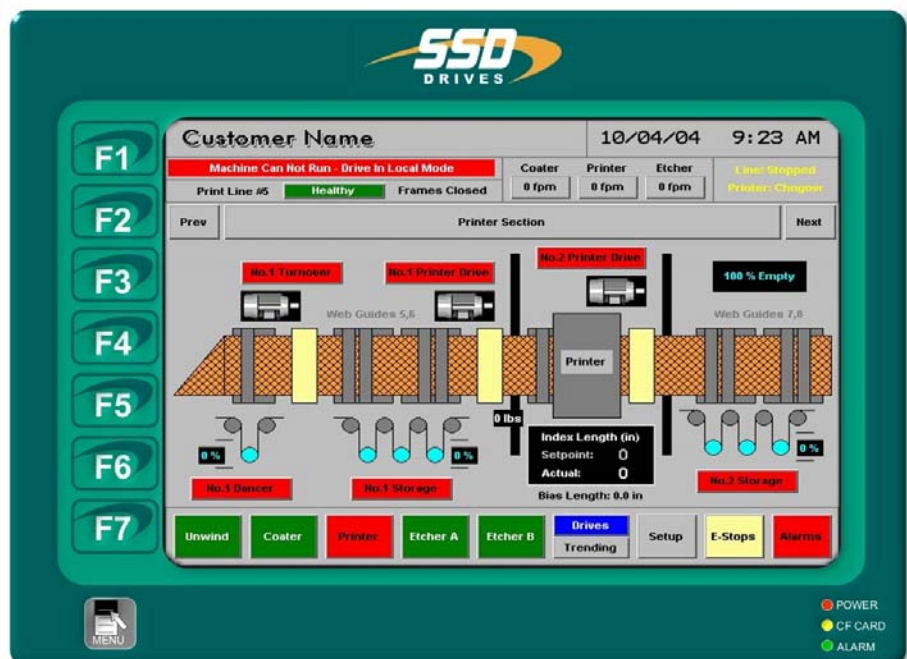
## TS8000

quick and easy HMI design

### Pre-Engineered Templates

Built in symbol library with over 4000 symbols

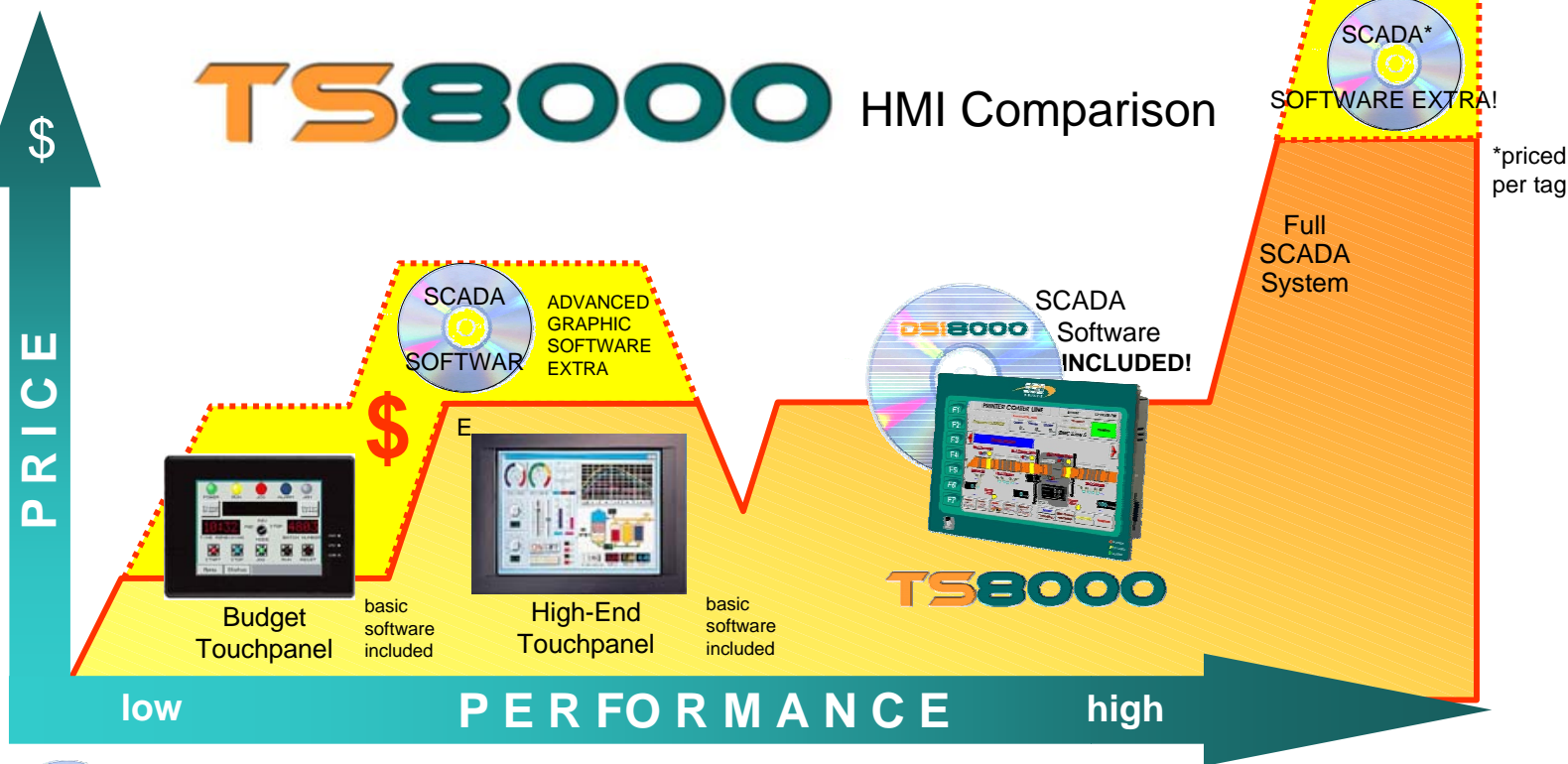
Support for BMP, JPG, and WMF files for more graphics power



Example: PRINTING PRESS

10.4" TS8010

# TS8000 HMI Comparison

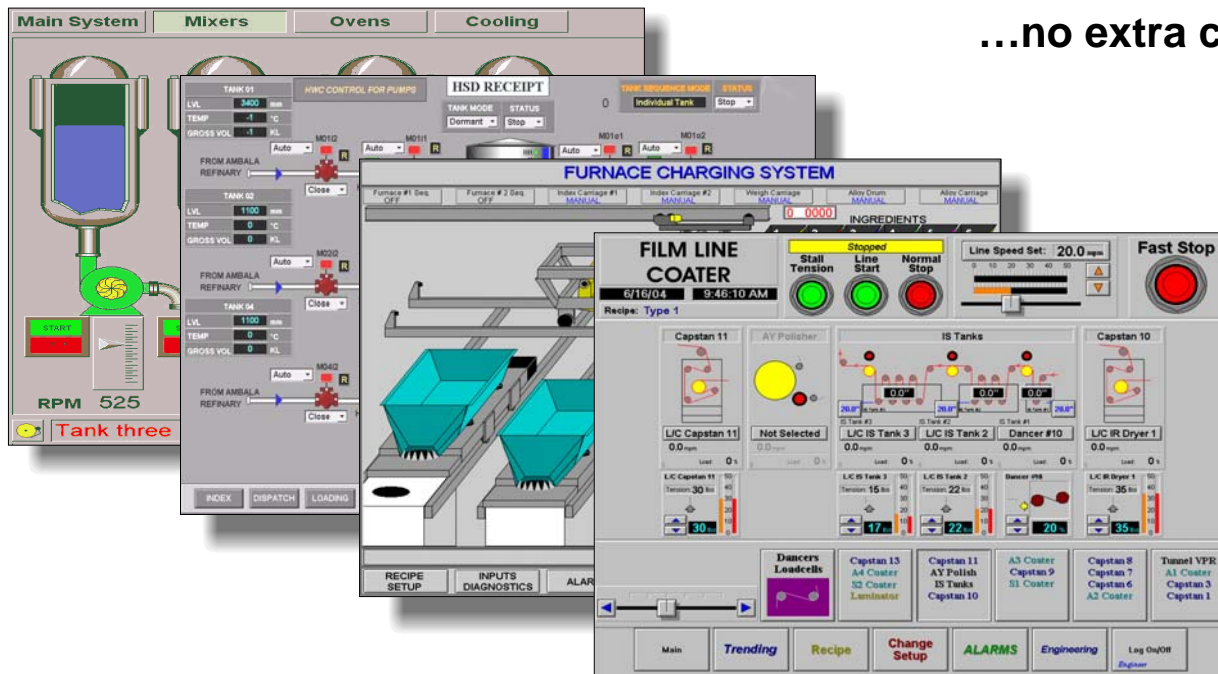


 Programming Tools are FREE on TS8000...no extra charges!

Other High-end Touchpanel and SCADA systems may come with only a very basic configuration software tool, requiring you to purchase or license a costly graphic design tool programming package, often with rates linked to the number of tags used. TS8000 includes DSI8000, a powerful graphic design and configuration software tool, complete with PRE-ENGINEERED TEMPLATES that make HMI design a snap!

## TS8000 Ready-Made Application Templates speed HMI design

...no extra charge!



- Data Tables
- Trending
- Histograms

- Alarm Logs
- Machine Graphics
- Production Charts



# DSI8000

## Software Programming Tool

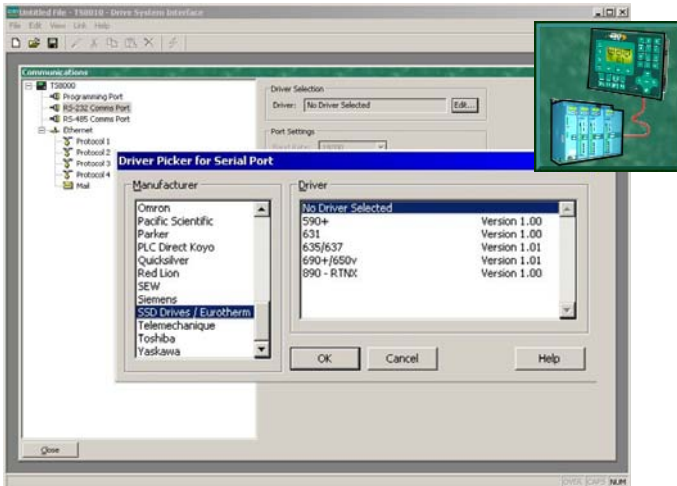
SSD Drive's extraordinary DSI8000 software is a powerful programming platform that gives the TS8000 series a multitude of exclusive functions. Its sophistication also makes all the leading edge capability of the TS8000 manageable, with user friendly drag and drop data mapping. DSI8000 works with all TS8000 HMIs. Initial set-up of DSI8000 is very easy and virtually self-explanatory.

### Fast and easy configuration and programming

DSI8000 is a powerful set of icon-based, configuration, display, control, and data logging tools uniquely designed to take full advantage of the TS8000 series architecture. Most applications can be quickly set up using the step-by-step process to configure communications protocols, define data tags, and create a user-friendly interface.

A full complement of drag and drop graphical symbols yield professional results in record time. Advanced features such as programming, data logging, and configuring the TS8000's internal web server are intuitive and easily enabled.

Flexible and easy to use software  
...included with the TS8000



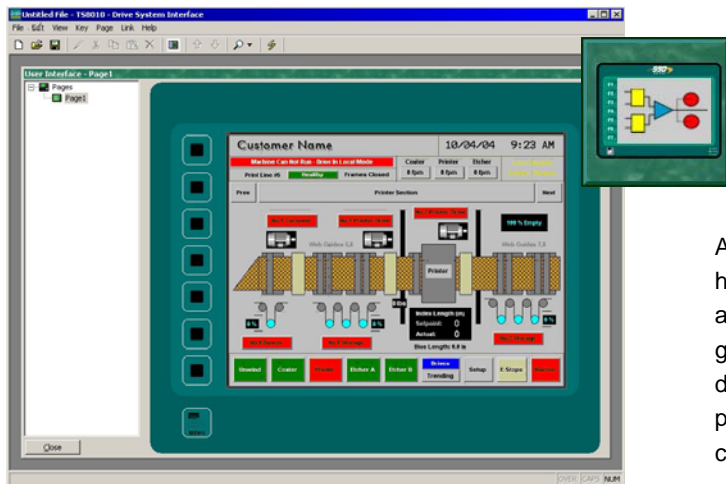
### Communications

DSI8000 leverages the enhanced communications power of the TS8000 HMIs. Each HMI comes standard with 2 RS-232 ports, an RS-422/485 port, a 10/100BT Ethernet port, a USB programming port, and an expansion slot for optional Fieldbus communications cards. Flexible programming allows for multiple ports to be active simultaneously. DSI8000 comes standard with communications drivers for all current SSD Drives products, such as the 590+ DC Drive, 650, 650v and 690+ AC Drives, 631/635/637 Servo Drives, Link2 products, and the new AC890 modular systems drive. Additionally, device drivers for most common PLC's are included as well.



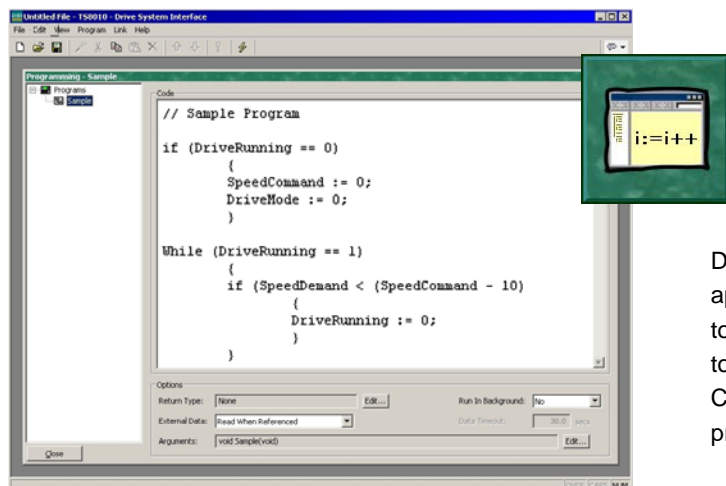
### Tag Database

DSI8000 incorporates an advanced tag database that allows users to organize and individually customize communications data. Data tags are configurable for: communications mapping, data format, color and text definitions, multiple alarm points, and event triggers. Properties set up in the database are accessible throughout the DSI8000 development tool. This is a central philosophy of DSI8000's advanced design environment.



## Graphical User Interface

A library of **PRE-ENGINEERED TEMPLATES** provide you with a headstart to fast HMI design. Common system applications are accessible and ready for you to customize, with DSI8000's powerful graphical display editor. The display editor contains many common drawing tools to aid in screen development. In addition, DSI8000 provides a pre-defined symbol library with over 4000 industrial control objects.



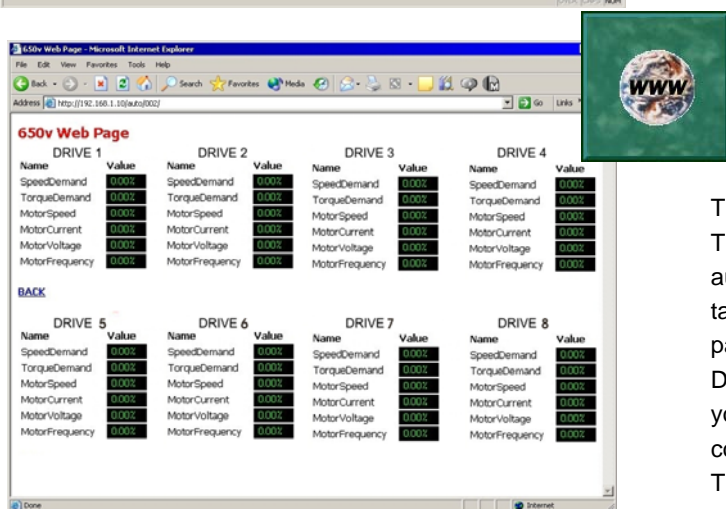
## Enhanced Program Editor

DSI8000 offers a built in C-based program editor to further enhance application development. Use of the program editor allows the developer to create more intricate custom applications that process and pass data to and from the user interface screens and the tag database. By using a C-based structure, the user can take advantage of a common syntax and programming structure.



## Built-In Data Logger

The TS8000 offers both real-time trending, as well as historical data logging for process application enhancement. Logged files are stored in a common .CSV (comma separated variable) format to the optional CompactFlash card. Trending and logging functions are configured using DSI8000 in a simple and easy to use manner. In addition, this stored data is also accessible over the Web, by using a standard browser, such as Internet Explorer.



## Built-In Web Server

The DSI8000 web server is capable of providing remote access to the TS8000 in several different ways. You can use DSI8000 to automatically generate lists of tags - each formatted according to the tag's properties. You can also create a custom web site, using a third party HTML editor such as Microsoft FrontPage, with code that instructs DSI8000 to insert live tag values for realtime monitoring. In addition, you can also enable DSI8000's Virtual Panel, a unique access and control feature, which allows a web browser to both view and control the TS8000's display in realtime.



# COMMUNICATIONS

**TS8000**



## Standard Communications

- USB Programming Port
- RS-232 Port (115.2 kbps)(x2)
- RS-422/485 Port (115.2 kbps)
- Ethernet Port (10/100Mbps)
- Fieldbus\* option card slot

## Fieldbus Comms\*

- CanBus
- Future Comms\**
- Firewire
- Profibus
- DeviceNet
- others

## Communications Protocols\*

SSD Drives – AC, DC, Servo and LINK

Allen Bradley – DF1, DH485

Alstom – ALSPA, GEM80

Festo – FPC, IPC, FEC Series

General Electric – SNP, SRTPL

IDEAC – Micro 3 Series

Klockner Moeller – PS4-201

Matsushita – FP Series

Mitsubishi – A/Q/FX Series

Modicon – Modbus RTU/ASCII, TCP

Omron – C Series, FINS Master

PLC Direct – DirectNet, K Seq

Siemens – S7 MPI, PPI

Telemecanique – Uni-Telway

... & others!

\* all trademark names and associated marks are owned by their respective companies



## AC and DC DRIVES

650, 650V, 690+ and 590+ series



## AC DRIVE SYSTEMS

AC890 series



## SSD LINK Real Time Network



## SERVO DRIVES

631, 635 and 637 series



## PLC Controllers

most popular brands

## Easy To Program User Interface

- Uses standard HMI drawing tools
- Objects link to a common tag database
- Built in symbol library of common industrial objects
- Object scripting enhances development flexibility

## Built in Web Server

- Quickly create detailed Web pages with manufacturing data
- Provides remote access and control of the HMI unit
- Monitor production data

## Built in CompactFlash Support

- Uses commonly available technology
- Expands available development memory
- Allows for permanent data storage
- Clone, restore, and upgrade applications

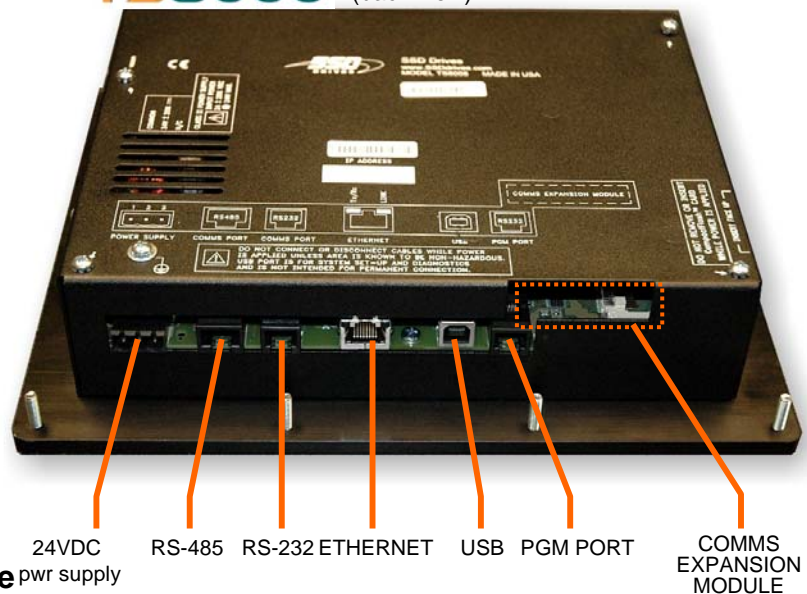
## Built In “C-Based” Script Language

- Provides high level programming constructs
- Enhances application functionality
- Programming power allows TS8000 to “bridge the gap” between touch panels and PC based SCADA systems

## Integrated Protocol Conversion

- Bridge between devices that cannot communicate directly with each other
- Low cost integration of existing hardware and automation components

**TS8000** (back view)



Each TS8000 features 5 comm ports, ready to accommodate many of today's most popular protocol devices.

In addition, a COMMS EXPANSION MODULE slot provides for additional Fieldbus options, including the fiber-optic SSD LINK techbox, enabling TS8000 to provide its powerful HMI display graphics to SSD LINK systems, with a wider choice of display sizes.

# Specifications



The following specifications pertain to the TS8000 series HMI. SSD Drives retains the right to modify specifications at any time, without prior notice.

## Power Requirements:

+24vdc (+/- 20%) @ 9.5W max (TS8003), 14W max (TS8006), 24W max (TS8008), 33W max (TS8010) - must use Class 2 or SELV rated power supply

Power connection is available via removable 3-position terminal block. Note: The TS8000's 0v common is not connected to the unit's chassis.

## Battery:

Lithium CR2025 "button" cell. Typical lifetime of 10 years.

## Keypad:

TS8003: 8 user assignable keys, 5 navigation keys, 12 numeric keys, 4 dedicated keys, and 3 soft keys. TS8006: 5 keys for on-screen menus.

TS8008: 7 keys for on-screen menus. TS8010: 8 keys for on-screen menus.

## Touchscreen:

Resistive Analog Type (TS8006, TS8008, TS8010).

## Memory:

User: 4Mb (TS8003, TS8006) or 8Mb (TS8008, TS8010) onboard non-volatile flash memory.

**Memory Card:** CompactFlash Type II slot for Type I and Type II CF cards.

## Communications:

**USB Port:** Adheres to USB 1.1 specification. Device only using Type B connection.

**Serial Ports:** Format and baud rates are individually programmable up to 115.2kb.

- PGM Port: RS-232 port via RJ-12.
- COMMS Ports: RS-232 port via RJ-12. RS-422/485 port via RJ-45.
- DH485 TxEn: Transmit Enable; open collector, Voh = 15vdc, Vol = 0.5vdc @ 25mA max.

**Ethernet Port:** 10/100 Base-T. RJ-45 jack is wired as a NIC.

## Environmental Conditions:

**Operating Temperature Range:** 0 to 50 deg C.

**Storage Temperature Range:** -20 to 70 deg C. (TS8003, TS8006) or 80 deg C. (TS8008, TS8010)

**Operating and Storage Humidity:** 80% maximum relative humidity (non-condensing) from 0 to 50 deg C.

**Altitude:** Up to 2000 meters.

## Construction:

Steel rear metal enclosure with NEMA 4X / IP66 aluminum front plate when correctly fitted with the provided gasket. Installation Category II, Pollution Degree 2.

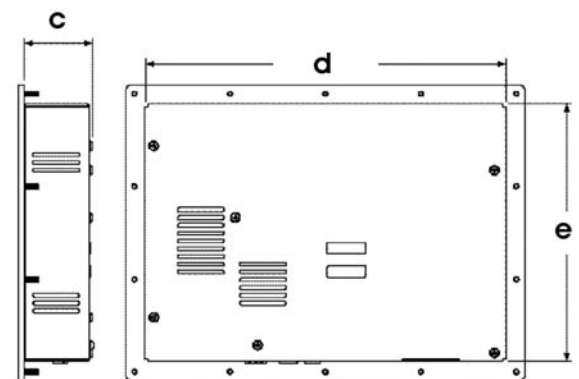
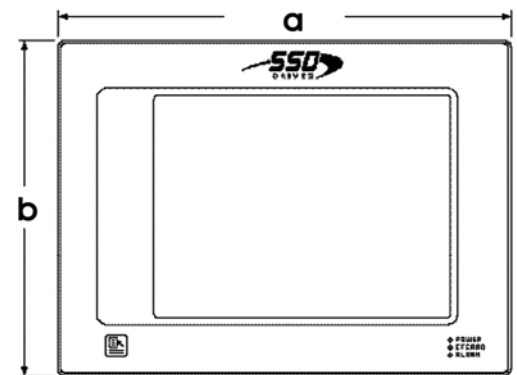
## Mounting Requirements:

Maximum panel thickness is 0.25 inch (6.3 mm). For NEMA 4X / IP66 sealing, a steel panel with a minimum thickness of 0.125 inch (3.17 mm) is recommended. Refer to "TS8000 Getting Started" guide (HA421056U001) for cut-out specifications.

## Weight:

TS8003: 1.96 lbs (0.89 kg). TS8006: 3.00 lbs (1.36 kg). TS8008: 3.84 lbs (1.74 kg).

TS8010: 5.53 lbs (2.51 kg).



Model	TS8003	TS8006	TS8008	TS8010
Screen Size	3.2 inch	5.7 inch	7.7 inch	10.4 inch
Type	FSTN	STN	DSTN	TFT
Colors	2 w/backlight	256 QVGA	256 VGA	256 VGA
Pixels	128 x 64	320 x 240	640 x 480	640 x 480
Brightness	-----	165 cd/m <sup>2</sup>	120 cd/m <sup>2</sup>	350 cd/m <sup>2</sup>
Backlight *	-----	20,000 Hour typ.	40,000 Hour typ.	50,000 Hour typ.
<b>Dimensions in. (mm)</b>				
<b>a</b>	7.45 (189.2)	8.83 (224.3)	10.32 (262.0)	12.83 (325.8)
<b>b</b>	5.85 (148.6)	7.08 (179.8)	8.18 (207.8)	9.50 (241.3)
<b>c</b>	2.1 (52.0)	2.3 (58.4)	2.20 (56)	2.20 (56)
<b>d</b>	6.04 (153.4)	7.42 (188.5)	8.91 (226.3)	11.55 (293.3)
<b>e</b>	4.44 (112.8)	5.67 (144)	6.77 (172.0)	8.27 (210.1)

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