

TS8000 HMI Touchscreens

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Overview

SSD Drives has introduced TS8000 - a new family of web-enabled graphic operator interface stations poised to revolutionize machine control.

TS8000 provides a user-friendly, powerful graphical HMI touchscreen and much more. With over 30 popular PLC drivers supported, built-in Ethernet, and direct communications with all SSD Drives products, TS8000 has a handle on all your drives system control needs.

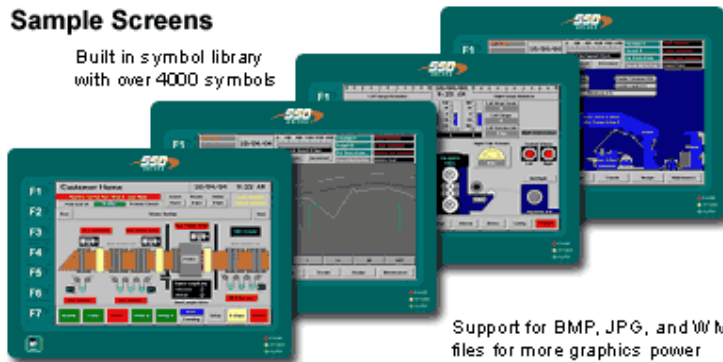
TS8000 is available in 4 popular sizes: 3", 6", 8" and 10.4" for easy enclosure or console mounting.

WEB-ENABLED graphic operator interface stations

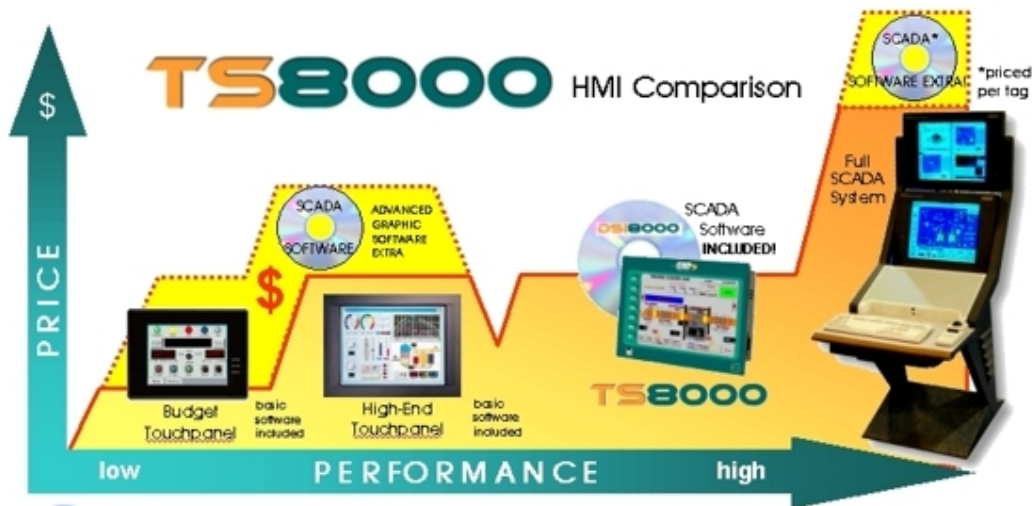
- On-board comms support for over 30 popular PLC Drivers
- Powerful graphic displays
- Direct Communications with all SSD Drive products
- Built-in Ethernet
- Remote monitoring and control

Sample Screens

Built in symbol library with over 4000 symbols



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



 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!

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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, 650v and 690+ AC Drives, 631/635/637 Servo Drives, Link2 products, and the new 890 Drive system. Additionally, device drivers for most common PLC's are included as well.



COMMUNICATIONS

TS8000



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

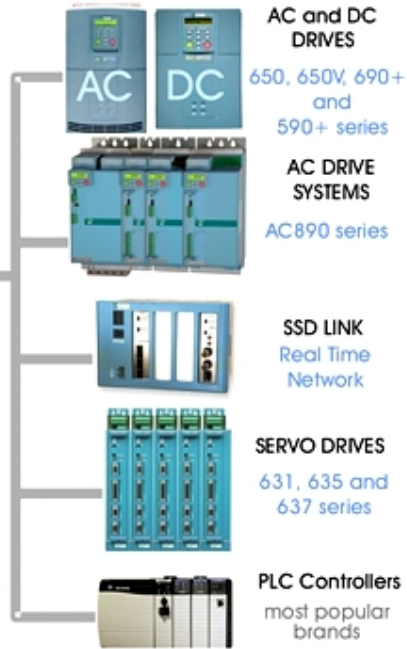
- Fieldbus Comms***
- CanBus
 - Future Comms***
 - Firewire
 - Profibus
 - DeviceNet
 - others

Communications Protocols*

SSD Drives – AC, DC, Servo and LINK

Allen Bradley - DF1, DH485	Mitsubishi – A/Q/FX Series
Alstom – ALSPA, GEM80	Modicon – Modbus RTU/ASCII, TCP
Festo – FPC, IPC, FEC Series	Omnicon – C Series, FNS Master
General Electric – SNP, SRTP	PLC Direct – DirectNet, K Seq
IDEC – Micro 3 Series	Siemens – S7 MPI, PPI
Klockner Moeller – PS4-201	Telemecanique – Uni-Telway
Matsushita – FP Series	... & others!

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

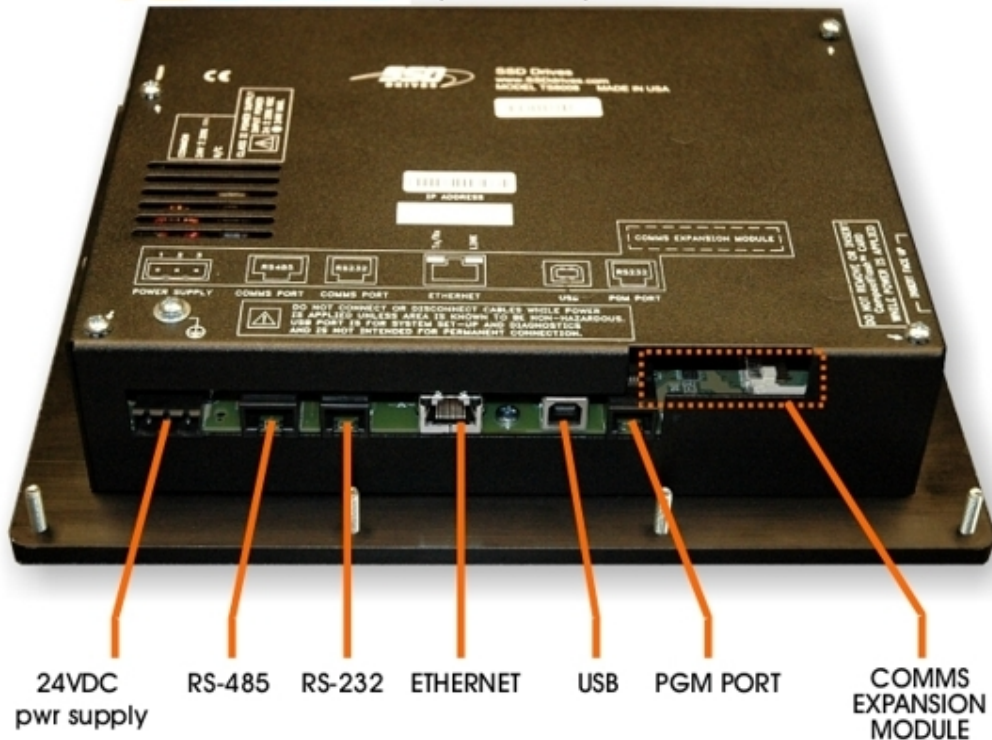


Standard Support For SSD Products

- EIBisync Drivers (590+, 650v, 690+)
- RTNx Drivers (890, Link Products)
- Servo Drivers (63x Family)
- RS-485 (Drive TechBox)
- Ethernet (Drive TechBox, Link Rack Card)

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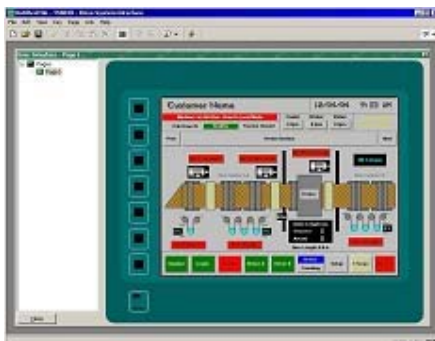
TS8000 (back view)



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.

Graphical User Interface



Central to DSI8000 is a 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.

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 power and flexibility

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 “C-Based” Scripting Language

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

Tag Database

DSI8000 incorporates an advanced tag database that allows user 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.

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Built-in Multi-Language Programming

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

Unicode* Support for:

- Japanese
- Korean
- Chinese (Simplified and Trad.)

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

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Software Programming Tool

SSD Drive’s extraordinary **DSI8000 Software** – included with every TS8000 – provides 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 HMI’s. Initial set-up of DSI8000 is very easy and virtually self-explanatory.

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

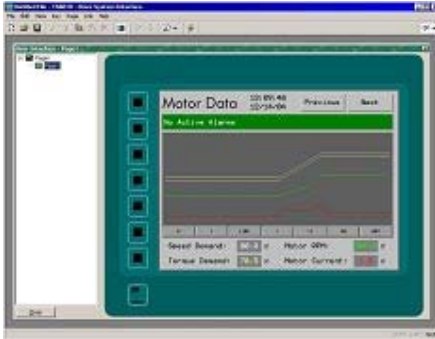
Fast and easy configuration and programming

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.

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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 CompactFlash Support

With the addition of a commonly-available CompactFlash card, memory is expanded and data can be permanently stored. CompactFlash provides an easy method to clone, restore, and upgrade applications.

- Uses common technology available to the consumer
- Expands available development memory
- Allows for permanent data storage
- Provides an easy method to clone, restore, and upgrade applications

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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.

- Quickly create detailed Web pages with manufacturing data
- Provides remote access and control of the HMI unit
- Allows manufacturing personnel to monitor production data

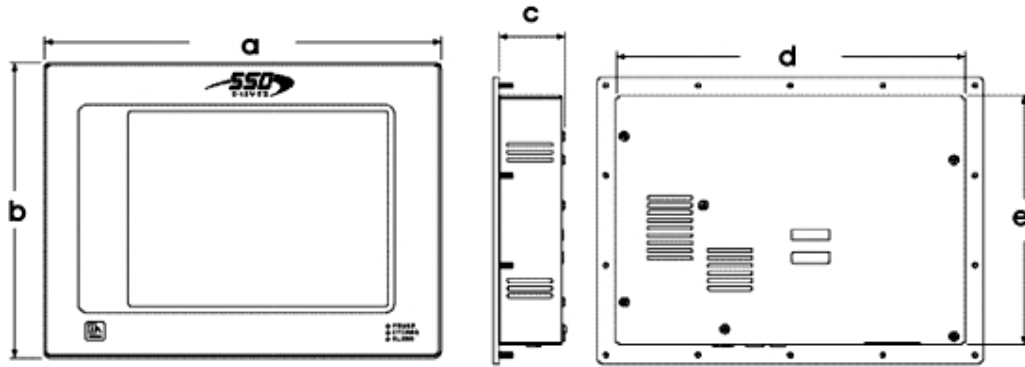
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Integrated Protocol Conversion

No more gateways! Perhaps the best feature of the TS8000 is that it provides a bridge between devices that are not capable of communicating directly with each other. TS8000 achieves a low cost method integration of existing hardware and automation components.



TS8000 HMI Touchscreen PDF (3.5mb)



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 ²	120 cd/m ²	350 cd/m ²
Backlight *	----	20,000 Hour typ.	40,000 Hour typ.	50,000 Hour typ.
Dimensions in. (mm)				
a	7.45 (189.2)	8.83 (224.3)	10.32 (262.0)	12.83 (325.8)
b	5.85 (148.6)	7.08 (179.8)	8.18 (207.8)	9.50 (241.3)
c	2.1 (52.0)	2.3 (58.4)	2.20 (56)	2.20 (56)
d	6.04 (153.4)	7.42 (188.5)	8.91 (226.3)	11.55 (293.3)
e	4.44 (112.8)	5.67 (144)	6.77 (172.0)	8.27 (210.1)

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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).