TT-TS12 Touch Screen Alarm Panel

Product Overview

The TT-TS12 Touch Screen Panel provides a graphic user interface to manage and display information from a network of up to 250 external TraceTek leak detection circuits. The 12" full colour, high resolution SVGA display is complimented with an industrial quality touch screen for user interaction and control. The TT-TS12 collects data from a network of TraceTek Senor Interface Modules or wireless Mesh Transmitters. The status of all leak detection cables and probes is displayed in a top-level summary and the current details of any selected channel are displayed at a single touch. The display features interactive and dynamic leak location maps and displays. The location of any detected leak is displayed by a flashing icon positioned over the floor plan, piping layout or the photo of a single piece of equipment at the user's discretion. Audible alarms, summary relays, serial data and web interfaces are provided as standard features.

Every installed Sensor Interface Module (TT-SIM) or wireless mesh transmitter (TT-702) is scanned on a continuous basis. When a leak is detected, the TT-TS12 will display the leak location with the name of the reporting channel and the distance along the cable in feet or meters. The leak location information is also used to position a flashing "LEAK" icon over a user designated background image.
The image can be a floor plan showing where the sensor cable has been installed, a pipe or tank plan, or the photo of a single piece of equipment. "Mapping Points" are entered during initial start-up and commissioning to provide the reference for leak location displays. Entering and editing mapping points is quick and easy. Intuitive zoom and pan gestures allow the user to quickly identify the source of any leak alarm and easily dispatch and direct a response effort.
Background images are transferred from the user's PC into the TT-TS12 as a jpeg formatted photo or similar graphic via a USB memory stick. The TT-TS12 can store up to 250 images

Diamond Controls Ltd.
Unit 5, Baines Way, Bowthorpe,
Norwich NR5 9JR
T: 01603 745000
E: sales@diamondcontrols.co.uk
W: www.diamondcontrols.co.uk
VAT reg no: 797 771 750
Registered no: 4113848

(each image can have up to 100 mapping points), so that multiple branch circuits or complex cable patterns are easily captured for future leak location displays.

Interface Options

All TT-TS12 units provide a built in Modbus RTU serial interface with user adjustable baud rates and port set-up. Modbus/TCP is supported via one of two Ethernet connectors. TraceTek publishes the complete Modbus register map and provides programming suggestions for system integrators. Since the TT-TS12 panel uses Windows CE as an operating system, Windows based remote viewing options are built-in. It is possible to view and interact with the TT-TS12 from a remote desktop or laptop via a LAN or web connection. For some installations, alarm notification and response may be off-loaded to a BMS or other host system. A 'graphics and data only' TT-TS12 panel may be appropriate. In other applications the user will require a local audible alarm and a minimum set of local relay contacts. A simple add-on module (TT-TS12-ADAM 4069) is included that adds 8 user programmable relays. By default, the first three relays are dedicated to audible device control, leak detection, and trouble signals. The remaining 5 relays are user programmable and can be used to control local pumps or valves, additional horns or beacons, or provide additional digital inputs to the host system. Additional relays can be added as required. Off-the-shelf industrial I/O devices allow the system to operate hundreds of relays. It is possible to subdivide any one sensor circuit into 10 regions and assign a different relay to each of those ten regions.

Onboard Memory

TT-TS12 has on board memory for up to 5000 events, simple off-line archiving and software updates. The TT-TS12 has a very large onboard event history stored in non-volatile memory. Events can be filtered by channel number and event type and sorted chronologically. The user can scroll up or down the event list to zero in on the desired events and time frame. All event history can be downloaded to a USB memory stick in XML format. This makes it simple to analyse the data using Excel on a PC. The complete set-up details including SIM tags, Region tags, and relay assignments and other set-up parameters can be saved to the USB stick as well. As software updates become available, they can be obtained from your local TraceTek sales representative. The user can transfer updated software to the TT-TS12 with a USB memory stick and the appropriate password protected security level.

Secure and Safe Operation

TT-TS12 provides multi-level password protection. Simple leak display and status screens are always available for viewing. Set-up options are protected by two levels of password protection depending on the potential impact to overall system performance. Start-up is automatic and should there be a power disruption, the system picks up where it left off including the re-flashing of any working alarms that have not been cleared or that occurred during the power outage.

Technical Information

The TT-TS12 can be ordered as an Enclosure, available in a variety of configurations, ranging from zero SIM's up to four SIM-1 or four SIM- 1A modules. All TT-TS12 Enclosures are supplied with:

- TT-TS12 Touch Screen
- TT-TS12-ADAM 4069
- TT-TS12-RS482/485-CNVRTR
- TT-TS12-120/230 VAC-PWR SUPPLY
- Front Panel USB Port and Buzzer

A Trim Flange is available for semi-flush mounting of the TT-TS12 Enclosure.
Some applications may require custom mounting, so the TT-TS12 Touch Screen Panel and associated accessories can be obtained individually.

General Features

Maximum size of network - Number of leak detection circuits	**250**	
Precision	+/- 0.1% of circuit length	
Units	**Feet, Meters or Zones**	
Display language	English, French, German, Spanish, Italian, Japanese and Korean	
Display type / size	**SVGA TFT LCD with size of 307.3mm (12.1 in)**	
Mounting	Flush or surface wall mount. Panel or rack mount	
Environmental	**Storage Temperature**	**-20˚C to 60˚C (-4˚F to 140˚F)**
	Operating Temperature	**-20˚C to 60˚C (-4˚F to 140˚F)**
	Humidity	**10% to 95% RH @ 40˚C, non-condensing**
	Ingress Protection Front Panel	**NEMA4, IP65, Enclosure NEMA1, IP10**
Interfaces	Relays	Via ADAM 4069 modules in increments of 8 (up to 5 modules) Via TT-NRM in increments of 2, up to 320
	Network port	RS-485 (2 Wire) DB-9 Connector Ethernet RJ41 Connector
Enclosure weight	**11.8kg (26.0lb) (typical, with 4 SIMs installed)**	
Enclosure dimensions	(W x H x D) 431.8 mm x 330.2 mm x 152.4 mm (17.0 in x 13.0 in x 6.0 in)	
Power requirement	**85 to 264 Vac, 50/60Hz**	
Enclosure power consumption	40 W (typical, with 4 SIMs installed)	
TT-TS12 weight	**2.5kg (5.5lb)**	

Diamond Controls Ltd.
Unit 5, Baines Way, Bowthorpe,
Norwich NR5 9JR
T: 01603 745000
E: sales@diamondcontrols.co.uk
W: www.diamondcontrols.co.uk
VAT reg no: 797 771 750
Registered no: 4113848

TT-TS12 dimensions	(W x H x D) 311 mm x 237 mm x 54 mm (12.24 in x 9.33 in x 2.12 in)
TT-TS12 panel cut-out	**(W x H) 302.5 mm x 228.5 mm (11.91 in x 9.00 in)**
TT-TS12 power consumption (screen only)	30 W (typical)

Approvals and Certifications

The TT-TS12 Touch Screen must be mounted in an ordinary area, but may monitor intrinsically safe TraceTek sensors located in hazardous locations.
Additional Zener Barriers are required for proper isolation between the ordinary and hazardous areas.

Important

All information, including illustrations, is believed to be reliable. Users, however, should independently evaluate the suitability of each product for their application.