Touch Screen Type

Alarm Monitoring System

TMS-2000

TOTAL CONTROL CO.
Marine Automation & Electric Repairs

Introduction

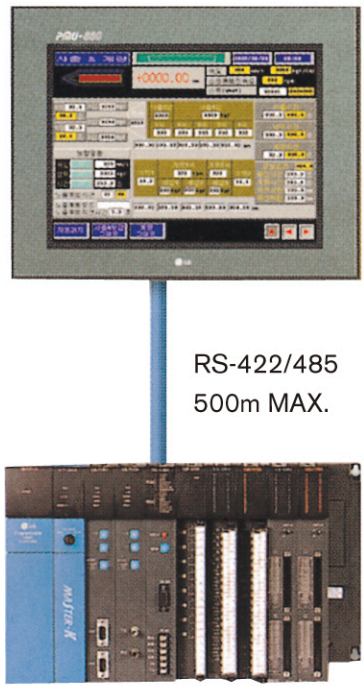
TMS-2000 is a programmable logic controller based intergrated alarm monitoring and control system. This system adopts touch screen type flat panel monitor instead of existing monitor. Touch screen type flat panel monitor does not require keyboard or trackerball to operate the alarm monitoring system. Touch screen type flat panel monitor features full colourgraphic displays and functional operators panels. Conversion of screen, data change, data collecting and alarm repose are available by touching of surface of touch screen panel.

TMS-2000 complies with the requirements of IMO, local marine authorities and classification societies for programmable logic controller based alarm system on board ships.

TMS-2000 networks allows interface with personal computers for remote monitoring and with other external computer based systems.

Features

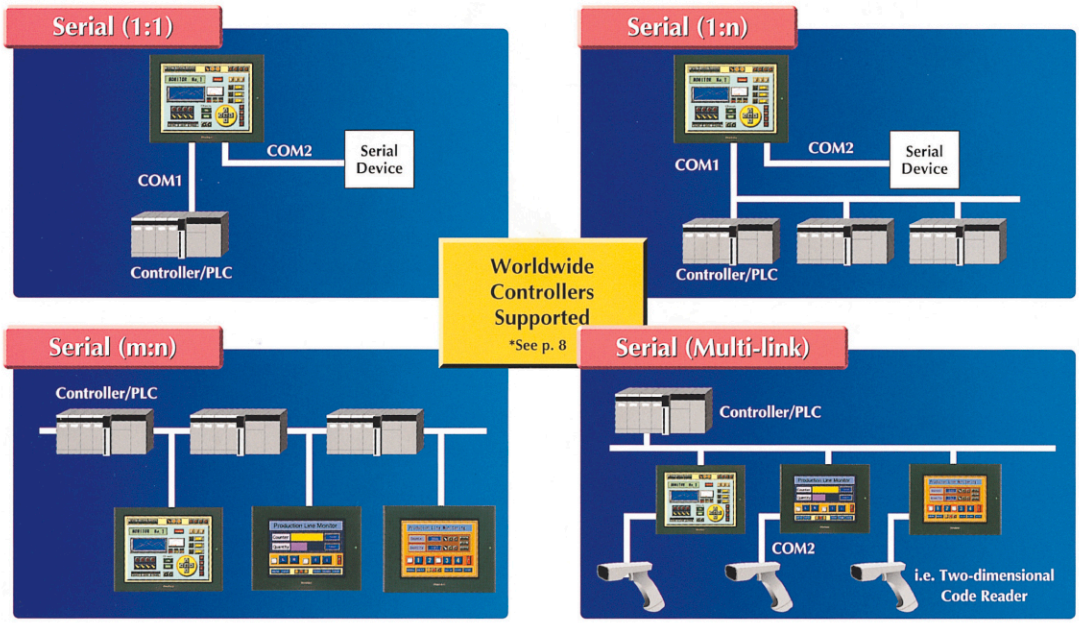
. User friendly touch screen type TFT display unit with multi-window
. Using programmable logic controller for alarm monitoring & controls
. Simple connection & compact panel
. Easy-to-read graphic display and simple look-and-touch-operation
. Easy installation & maintenance
. Low cost
. 256 color display
. User replaceable backlight
Backlight life time : 30,000h



COMMUNICATION CONNECTIVITY

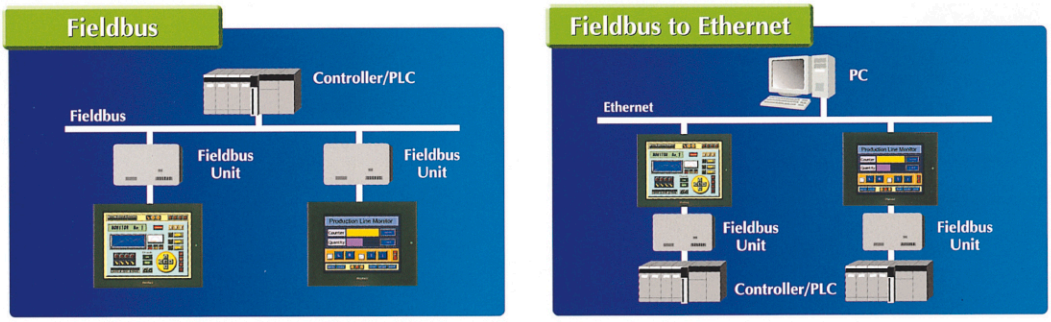
For a Wide Range of Production System

Serieal Connections



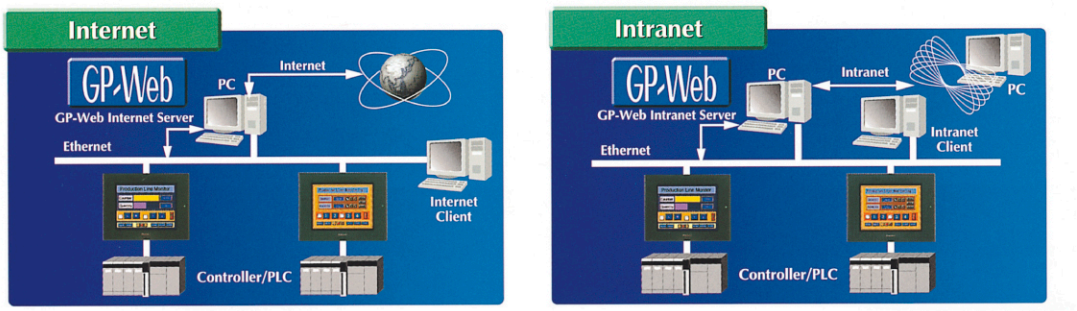
Use the RS-232C/RS-422 communication port to connect at u 115.2 kbps to over 600 PLCs and controllers.

Fieldbus Connections



Attach an optional network unit and connect your GP to a variely of field networks.

Remote Monitoring



GP-Web enables remote monitoring of factory floor data anytime and anywhere without special programming

Functional Description

TMS-2000 Touch screen type alarm monitoring & control system is design for continuous monitoring for output of equipments. Every signal enters cpu unit through the I/O unit for the programmable logic controller, which processes and displays variables on the touch screen flat monitor.

TMS-2000 has the following main function and special functions.

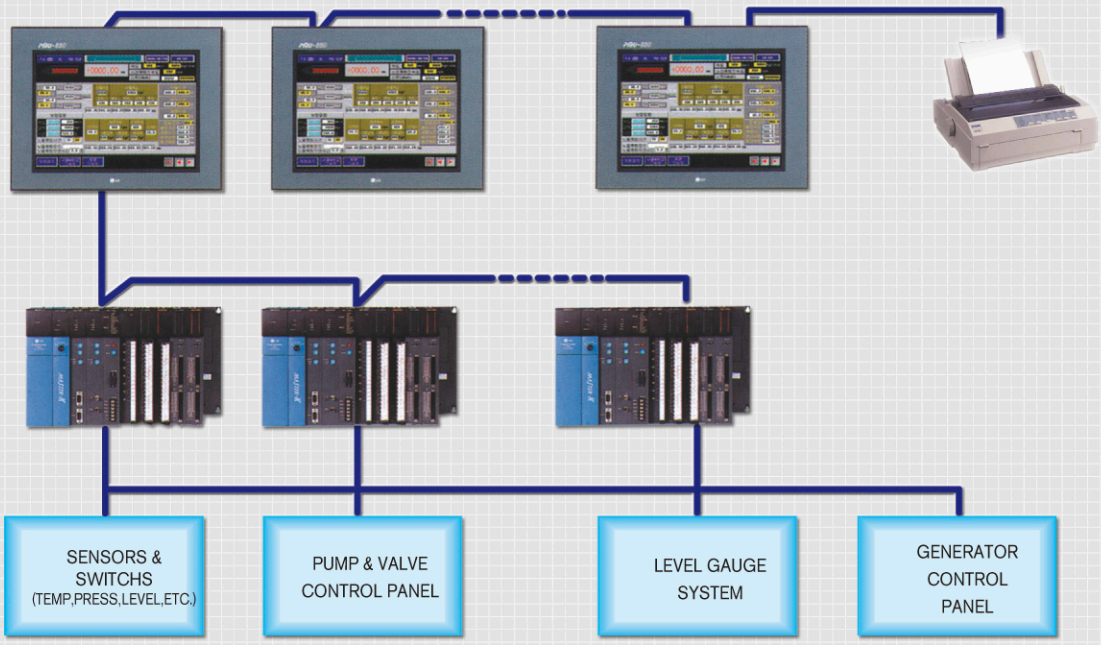
■ Main Function

- Alarm for Analogue Signals
- Alarm Detection for On/Off Signals
- Repose of Alarms
- Alarm Messages
- Alarm Acknowledge
- Extension Alarm
- Process Mimics, Bar Graphs and Status Displays
- Logging Function
- Net Communication
- Remote Operation

■ Special Function

- Trend Monitoring
- Running Hours
- Level Gauging System
- Valve Control
- Stand by Pump
- Boiler Control
- Compressor Control

System Layout



Operation

Touch Screen Alarm Monitor

The touch screen monitor consists of multi-window pages and each pages will show following informations.

. Status of individual alarm pages

. Buttons for buzzer stop, flicker stop, alarm reset, function test, data change graph move, alarm test and buttons for next & previous page(see fig.1)

(fig.1)

Main Page

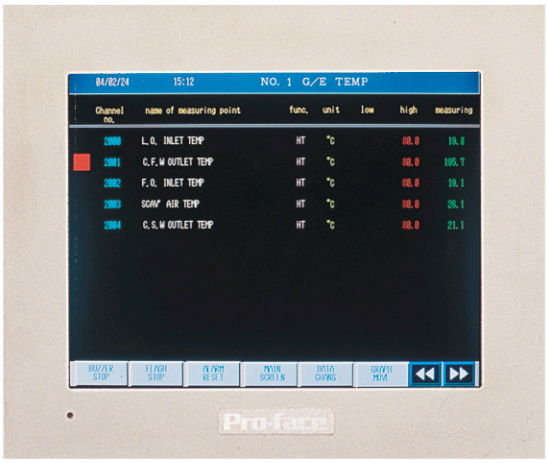
Upon turning on the panel, touch screen monitor will show the main page(see fig.1). On the main page, you can see the alarm screen, running indicator, date & time and message list.

This page will show the status of running condition on the running indicator and general alarm for the machineries & equipments. Message list (see fig.1) will show date, time and description for alarm of machineries. When the alarms are activated, red lamp on the alarm screen will flicker, common buzzer and external alarm will be activated and alarm message will be displayed. When the buzzer stop button is depressed, buzzer will be deactivated but alarm lamps are still flickering.

Individual Alarm Page

At this time, when the alarm red lamps on the main page are depressed, the touch screen monitor will show the individual alarm pages (see fig. 2) for machineries and equipments and this individual alarm pages show the location and status of alarms.

On the individual alarm pages, alarm lamp is still flickering until stop button is depressed.

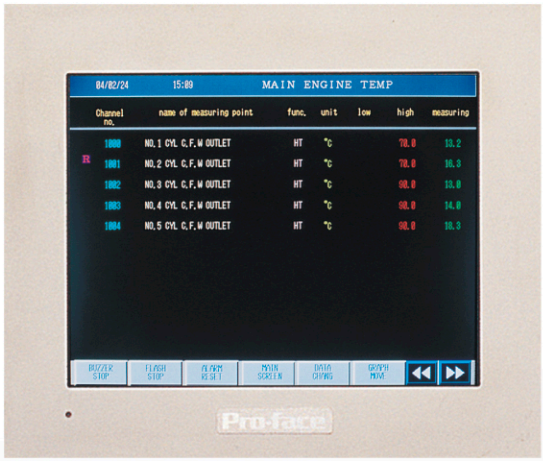


(fig.2)

When the flicker stop buttons on the individual alarm pages are depressed, alarm lamps will be remained lighted.

After alarm condition has been returned to a normal values below the preset data, when the alarm reset buttons on the each pages are depressed alarm lamps will return to normal dark.

When the buttons for previous and next page on the individual alarm pages and main page are depressed, the touch screen will show the previous and next page.



(fig 3. analogue input)

(fig 4. binary input)

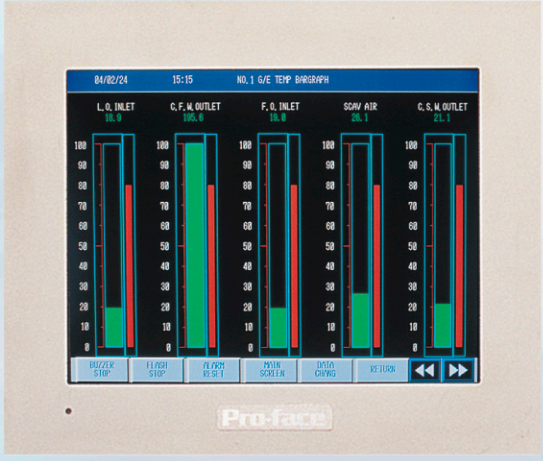
Miscellaneous Alarm Page

When the alarms are activated, red alarm lamps will flicker and letter normal will be changed to abnormal.

After alarm condition has been returned to a value below the preset value, when the alarm reset buttons on the each pages are depressed, red alarm lamps will return to normal dark and letter abnormal will be changed to normal.

Bar graph Page

When the buttons for graph on the main page, individual alarm page, and data change page are depressed, touch screen will show bar graph readings of data for machineries and equipments. (see fig.5)



(fig. 5)

Data Change Page

When the buttons for data change on the main page and each pages are depressed, touch screen will show data change page.

On this page, when the button for pad on is depressed, key pad will be displayed on the screen. Enter channel number which you want to change data and push ENT button. Doing so, channel screen will be displayed.(see fig.7)

(fig. 6)

(fig.7)

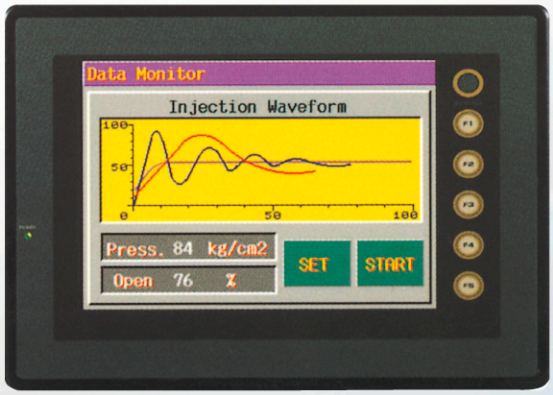
Channel Page(fig. 7)

On this page, changes of setting values for alarm High/Low and alarm repose function are available. Compensation of measuring data is also available through keypad.

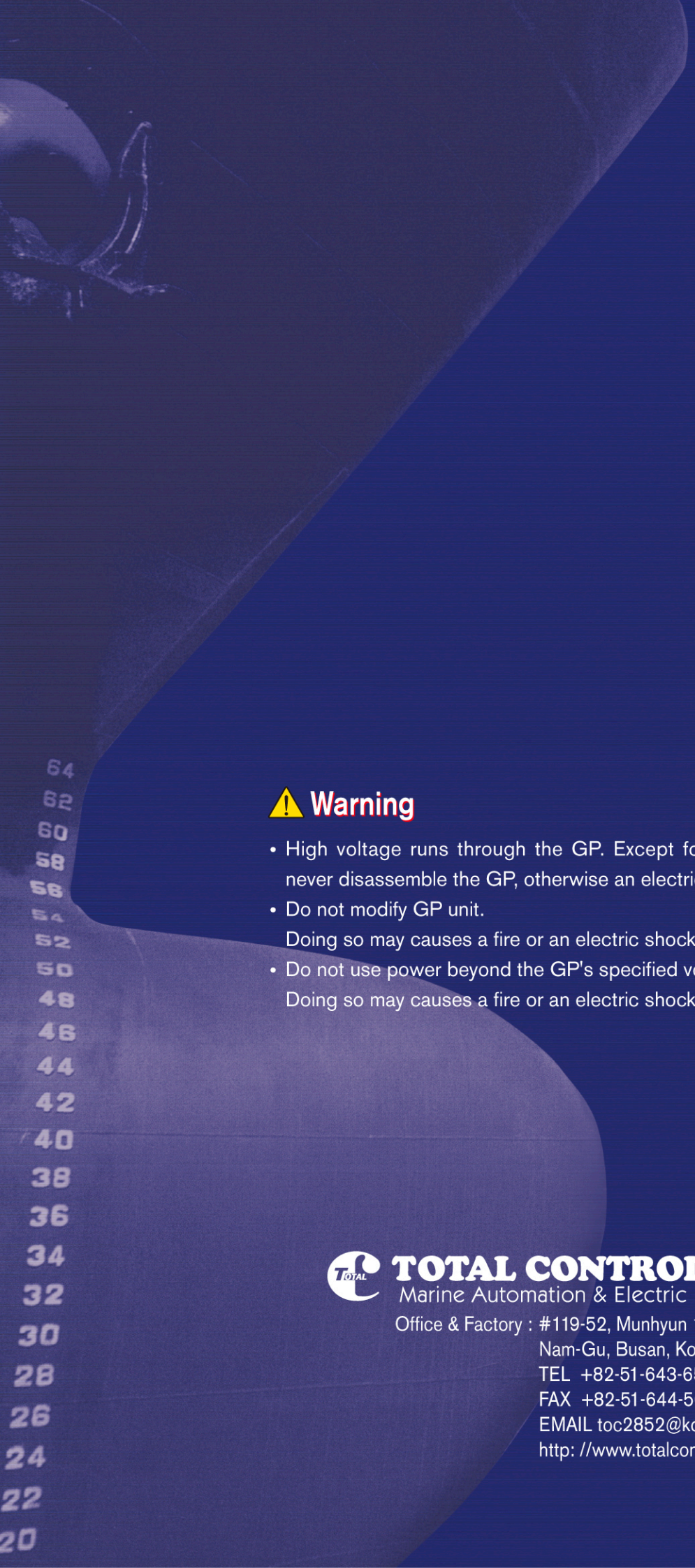
Trend Monitoring(fig. 8)

Trend monitoring system offers the possibility to record and present as curves historical data for selected varibles. The trend uses two functions on the touch screen panel, the select trend function and the display trend function.

Activating the display trend function will display the selected trend display as continuous curves.



(fig.8)



⚠ Warning

- High voltage runs through the GP. Except for replacing backlight, never disassemble the GP, otherwise an electric shock can occur.
- Do not modify GP unit.
  Doing so may causes a fire or an electric shock.
- Do not use power beyond the GP's specified voltage range.
  Doing so may causes a fire or an electric shock.

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