

# ST-72 16-64 Channel Controller



ST-72PM Rack/Panel Mount  
72-01



ST-72CP Nema 4X Compact Fiberglass  
72-07

The ST-72 controller provides simultaneous display and alarm functions for up to 64 input variables. 16-32-48-64 channel display modes, and I/O modules arranged in groups of 16 channels, allow economical configuration of systems. This easy-to-configure, user friendly controller is ideal for centralizing display and alarm functions in critical multipoint monitoring applications.

CSA certified for *Division 2 potentially hazardous areas* (Division 1 model = ST-72XP)

## FEATURES

- 16-32-48-64 channel display modes accept inputs from many sensor types and signal ranges
- Ethernet with Modbus® TCP Master/Slave and web server for configuration and monitoring
- RS-485 serial ports allow simultaneous Modbus Master/Slave operation. Two Standard ports and two optional isolated ports
- Wireless Modbus interface available
- Three independent alarm levels per channel. "Relay Acknowledge" feature allows silencing of external audible devices during alarm conditions
- QVGA Color LCD displays monitored data as trends, bar graphs and engineering units. Readouts change colors to indicate alarms
- Five standard SPDT 5-amp alarm relays for HORN and FAULT, plus three programmable alarm relays
- Options such as Bridge Sensor Inputs, 4-20mA inputs, 4-20mA outputs, discrete and programmable alarm relays are supported via an I2C expansion bus
- Cal Mode offers push-button zero/span calibration for direct sensor interface applications
- Authorization Mode allows locking of critical config variables
- Data Logger onto SD card allows recording of minimum, maximum and average values for one year
- Power supply options 150, 600, and 1200 Watts
- Magnetic keypad standard for non-intrusive operation in potentially hazardous locations
- Enclosures include wall mount NEMA 4X - Non-Metallic - 316 SS, NEMA 7 and Rack/Panel Mount

# SPECIFICATIONS

## ANALOG INPUTS (OPTIONAL)

12bit 4-20mA into 150 ohms input impedance; includes +power supply terminals for each channel for routing power to two or three wire transmitters

## SERIAL PORTS

Modbus Master and Slave RS-485 ports equipped with Tx / Rx LEDs

## ETHERNET PORT

Modbus TCP Master/Slave port with web server

## ALARM RELAYS

Five 5 amp 30VDC or 250VAC resistive Form C

## ANALOG OUTPUTS (OPTIONAL)

10 bit 4-20mA output. Max load 800 ohms with nominal 24VDC power supply

## DISPLAY

QVGA 320 x 240 pixel graphic LCD with backlight displays bar graphs, trends and engineering units in color  
Five discrete LEDs indicate alarm status for five standard alarm relays

## AMBIENT TEMPERATURE RANGE

-25 – +60 degrees C

## POWER SUPPLY

10 – 30VDC (24VDC nominal) 12 Watts max required by ST-72  
10-0172 option = 150 Watt  
10-0307 option = 600 Watt

## APPROVALS

CSA C22.2 No 1010.1 and C22.2 No.152 for combustibles and ISA S82.02  
UL 1604 / C22.2 No 213 (NEMA 4X = Division 2 Groups A,B,C,D,)  
EN55011 and EN61000 (CE Mark)

Model ST-72XP 72-06 = NEMA 7 Division 1 Group B,C,D

## MODELS

- 72-01 ST-72PM 1/2 width 19 inch rack / panel mount (shown below)
- 72-02 ST-72RM/1 Full width 19" rack mount (1, ST-72, 64 channels)
- 72-03 ST-72RM/2 Full width 19" rack mount (2, ST-72's, 128 channels)
- 72-04 ST-72N4 NEMA 4X large fiberglass wall mount (shown below)
- 72-05 ST-72SS NEMA 4X 316 SS wall mount
- 72-06 ST-72XP NEMA 7 explosion-proof wall mount
- 72-07 ST-72CP NEMA 4X compact fiberglass wall mount

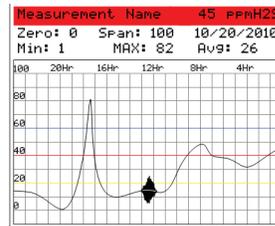


## MAIN DATA SCREEN

Displays all active channels on the same screen. Channel configurations include 16,32,48 and 64 (shown) active channels. Cells indicate alarm status by color.

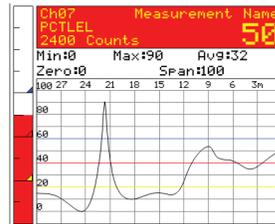
## BAR GRAPH SCREEN

Displays 16 channels at a time. Side scroll bar controls which group of 16 channels are visible. Bar graphs change colors to indicate alarm status.



## 24 HOUR TREND SCREEN

Displays 1 channel at a time as most recent 24 hour trend. Top data fields include current reading, max – min – average readings over the 24 hours, range, channel ID and engineering units.



## COMBINATION SCREEN

Displays 1 channel at a time as most recent 30-minute trend, bar graph and large engineering units. Top data fields include current reading, max - min -average readings over the 30-minutes, range, channel ID, and engineering units. Readings change color and flash on alarms. Flashing color becomes steady after acknowledge.

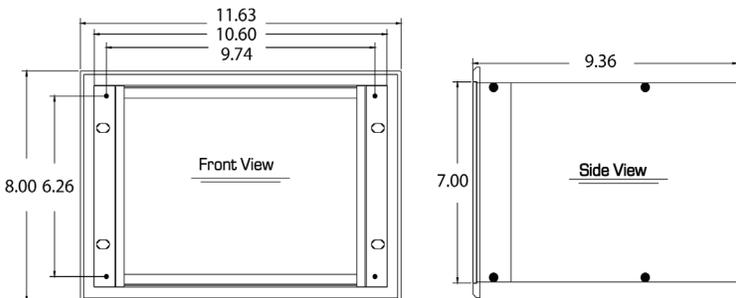


## ZONE SCREEN

Displays all eight possible active zones. Alarm cells change colors and name field flashes indicating alarms. Allows user direct access to screen that shows which channels belong to each zone.

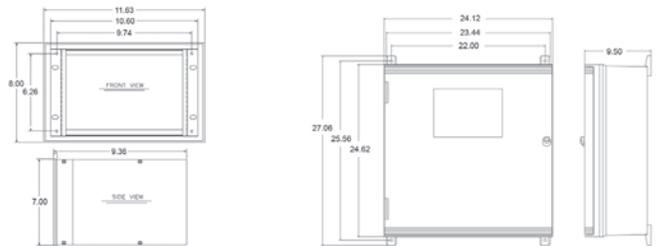
ST-72PM Rack/Panel Mount

72-01



ST-72N4 NEMA 4X Large Fiberglass Wall Mount

72-04



Note: Panel cut-out = 7.1 X 9.3

ALL DIMENSIONS IN INCHES

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