



ST-90/Quad Controller with Serial Interface



ST-90PYQUAD NEMA 4X Non-Metallic
90-50

The ST-90 Quad Channel Controller provides simultaneous display and alarm functions for four monitored variables. Easy to configure and user friendly, the ST-90 Quad can function as a critical alarm controller for toxic gases, combustible gases, vibration, tank levels and other process values.



ST-90PCSQUAD Painted Carbon Steel
90-51

CSA certified for *Division 2 potentially hazardous areas*

FEATURES

- Accepts inputs from up to four 4-20mA sensors transmitters for long distance interfacing. Generates 24VDC external device power for transmitters and other devices
- Three adjustable independent alarm levels per channel. "Relay Acknowledge" feature allows silencing of external audible devices during existing alarm conditions
- Graphic LCD readout displays monitored data as bar graphs, engineering units, and 30 minute trends. Alarm LED's flash when new and become steady after acknowledged
- Two standard programmable SPDT alarm relays are configurable for HORN, HIGH, WARN or FAULT alarm conditions
- Modbus® master/slave RS-485 serial port interfaces to Modbus® devices such as PCs, PLCs, DCS, and other RC Systems controllers
- Cal Mode offers pushbutton zero / span calibration for direct sensor interface applications
- Authorization mode allows locking of critical configuration variables
- Touch and magnetic keypad are standard for non-intrusive operation in potentially hazardous locations
- Enclosures Include: Non- Metallic, Epoxy Coated Steel, 316 SS, NEMA 4X, NEMA 7 Explosion-Proof wall mount packaging options available
- Certified to CSA C22.2 NO. 152 for combustible detection and Class I, Division 2, Groups A,B,C,D
- Non-volatile memory retains all configuration data indefinitely
- RS-485 Modbus® master/slave port for up to 128, devices to be multidropped on a single data highway for interrogation by another Modbus® master
- Six additional 5 amp SPDT discrete channel alarm relays available (two are standard)
- 4-20mA outputs, event log, strobe lights and audible annunciators also available
- 50 and 120 Watt 24VDC power supplies available

SPECIFICATIONS

INPUTS

Available inputs include 4-20mA with precision 100 ohm terminating resistor (0-2 Volt inputs may be accepted by removing the socketed terminating resistor) and bridge sensor inputs with adjustable sensor excitation and balance settings

STANDARD ALARM RELAYS (STANDARD)

Two programmable, 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

DISCRETE ALARM RELAYS (OPTIONAL)

Six programmable 5 amp 30VDC or 250VAC resistive Form C

SERIAL PORT (OPTIONAL)

Master/Slave RS-485 port equipped with Tx / Rx LED's

Protocol is Modbus® RTU

DISPLAY

128 x 64 pixel graphic LCD with backlight displays bar graphs, trends, and engineering units. Six discrete LED's indicate alarm status, CAL MODE, keypad activity

AMBIENT TEMPERATURE RANGE

-25 to +60 degrees C

POWER SUPPLY

100-240VAC / 10-30VDC are standard primary power supplies

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 ENG1000 (CE Mark)
90-12 = NEMA 7 Division 1 Group B,C,D

MODELS

90-50	ST-90PY in Non Metallic
90-51	ST-90PCS in NEMA 4 painted carbon steel
90-52	ST-90SS in NEMA 4X, 316 stainless steel
90-12	ST-90XP in bolt on lid NEMA 7 cast aluminum

ST-90 OPTIONS/ACCESSORIES

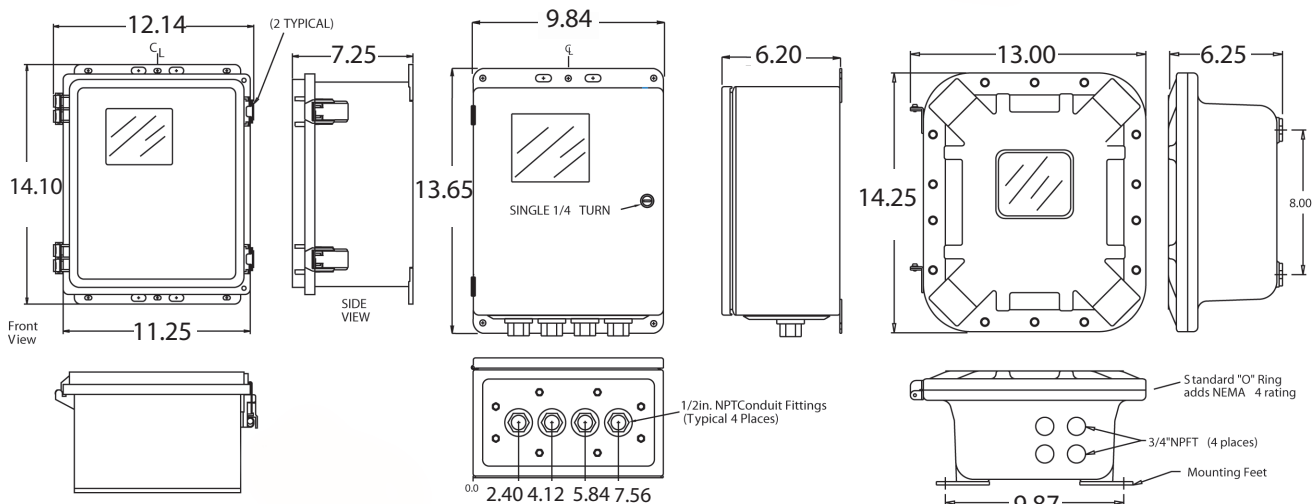
10-0221/4	4-20mA analog input PCB
10-0222	Optional relay board with six programmable 5 amp Form C relays
*10-0328	900MHz wireless kit with rubber dipole antenna
*10-0355	2.4GHz wireless kit with rubber collinear antenna
10-0308	Quad 4-20mA outputs
10-0309	Quad bridge sensor inputs
10-0253	RS-485 / RS-232 Modbus® RTU interface
*10-0337	100dB piezo audible option
*10-0284	Division 2 xenon red strobe light option
*10-0285	Division 2 xenon amber strobe light option
*10-0316	Division 2 xenon blue strobe light option
1000-2259	50 Watt AC/DC power supply module
1000-2373	120 Watt AC/DC power supply module
10-0314	NEMA 4X/7 Division 1, 50 Watt 24VDC external power supply
10-0315	NEMA 4X Division 2, 50 Watt 24VDC external power supply

*These items only available with NEMA 4 enclosure

ST-90PYQUAD NEMA 4X Non-Metallic Wall Mount
90-50

ST-90SSQUAD NEMA 4X 316 SS Wall Mount
90-52
ST-90PCSQUAD NEMA4 Painted Steel
90-51

ST-90XPQUAD Explosion Proof Wall Mount
90-12



ALL DIMENSIONS IN INCHES