



RC SYSTEMS

RC Systems has engineered and manufactured industrial electronic products for the instrumentation industry since 1979. As critical alarm monitoring experts, we specialize in interfacing various sensors and analyzer devices to our alarm and display products. Our products are known for their reliability, performance, and ease of use for applications where maintenance and safety are crucial. Some of these applications include fixed and temporary ambient gas detection as well as numerous other multi signal monitoring applications. In addition, we provide various solutions for hard wire or wireless systems. Our wireless monitoring ability/strategy continues to provide recognized solutions for countless customers worldwide.



ST-90/Quad Controller with Serial Interface

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



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.
- Non- Metallic, Epoxy Coated Steel, 316 SS, NEMA 4X (Division 2 certified) and 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 enclosure |
| 90-51 | ST-90PCS in NEMA 4 painted carbon steel enclosure |
| 90-52 | ST-90SS in NEMA 4X, 316 stainless steel enclosure |
| 90-12 | ST-90XP in bolt on lid NEMA 7 cast aluminum enclosure |

ST-90 OPTIONS/ACCESSORIES

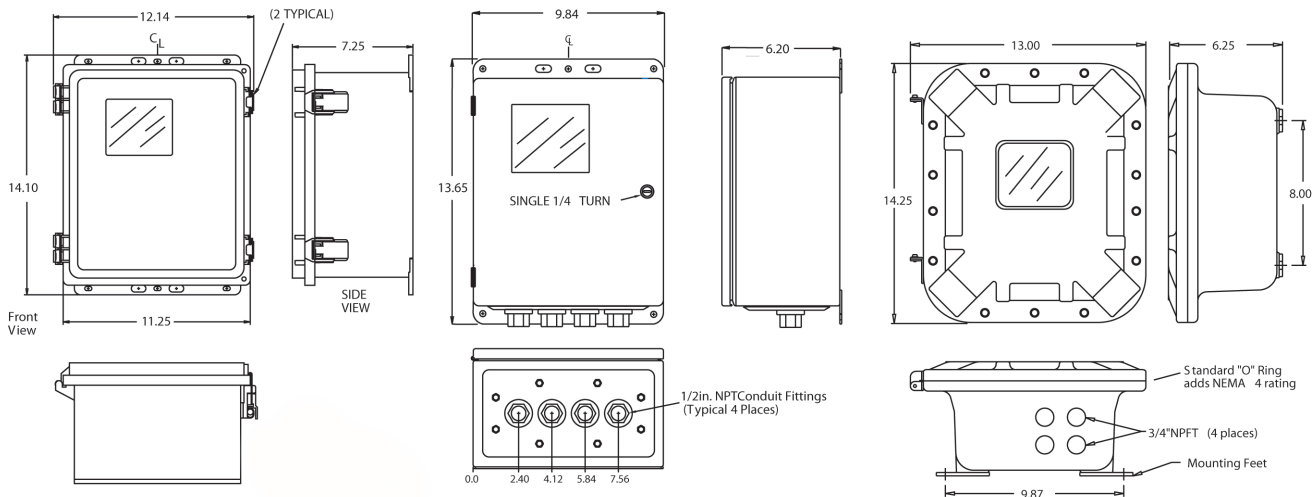
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| 10-0221/4 | 4-20mA analog input PCB |
| 10-0222 | Optional relay board with six programmable 5 amp Form C relays |
| *10-0328 | 900MHz wireless kit with rubber dipole antenna |
| *10-0355 | 2.4GHz wireless kit with rubber collinear antenna |
| 10-0308 | 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



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