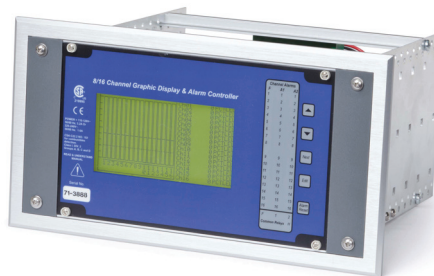# RC SYSTEMS

RC Systems has manufactured electronic products for the instrumentation industry since 1979. As critical alarm monitoring experts, we specialize in interfacing various sensor 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. Our wired and wireless products continue to provide solutions for customers worldwide.

ST-71,16 Channel Modbus® Master/Slave Display and Alarm Controller

The ST-71 16 Channel Modbus® Master/Slave Display and Alarm Controller provides simultaneous display and alarm functions for up to 16 monitored variables. Easy to configure and user friendly, the ST-71 can function as a critical alarm controller for toxic or combustible gases, vibration, tank levels and other process values.

ST-71PM Rack/Panel Mount
71-04

ST-71N4 NEMA 4X Wall Mount
71-01

CSA certified for *Division 2 potentially hazardous areas (Division 1 model = ST-71XP)*

FEATURES

- Accepts up to 16 inputs from many sensor types and signal ranges. Modbus® master capability allows input data to be retrieved via RS-485.

- Eight channel display mode and option boards allow economical configuration of systems requiring only 8 channels or less.

- Dual Modbus® RS-485 serial ports for simultaneous master / slave operation.

- Three independent alarm levels per channel. "Relay Acknowledge" feature allows silencing of external audible devices during existing alarm conditions.

- Graphic LCD displays monitored data as trends, bar graphs and engineering units. Alarm LED's flash when new and become steady after acknowledged.

- Standard SPDT common alarm relays for HORN,HIGH, WARN and FAULT.

- Options such as Bridge Sensor Inputs, 4-20mA inputs, 4-20mA outputs, discrete alarm relays are supported via an I2C expansion bus.

- Cal Mode offers push-button zero/span calibration or direct sensor interface applications.

- Authorization Mode allows locking of critical config -variables.

- 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)
12 bit 4-20mA into 100 ohms input impedance; includes +power supply terminals for each channel for routing power to two or three wire transmitters

COMMON ALARM RELAYS (STANDARD)
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)
Four 5 amp 30VDC or 250VAC resistive Form C

SERIAL PORT (STANDARD)
Modbus Master and Slave RS-485 ports equipped with Tx / Rx LED's

DISPLAY
128 x 240 pixel graphic LCD with backlight displays bar graphs, trends and engineering units. 52 discrete LED's indicate alarm status for three alarms per 16 channels and common relays

AMBIENT TEMPERATURE RANGE
-25 - 60 degrees C

POWER SUPPLY
10 - 30VDC 12 Watts max required by ST-71

10-0172 option = 150 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)

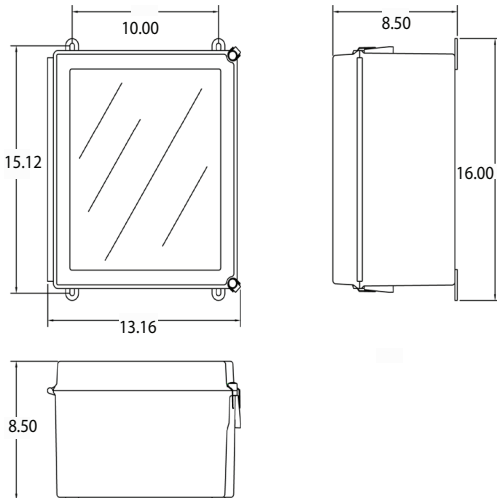Model ST-71XP 71-02 = NEMA 7 Division 1 Group B,C,D

MODELS

71-01	ST-71N4 NEMA 4X wall mount	
71-02	ST-71XP NEMA 7 wall mount explosion-proof	
71-04	ST-71PM panel mount rack (includes bezel/rack hardware)	
71-06	ST-71SS NEMA 4X 316 wall mount stainless steel	

OPTIONS/ACCESSORIES

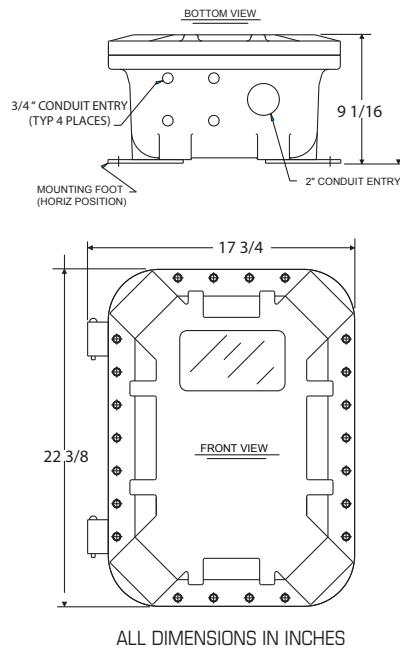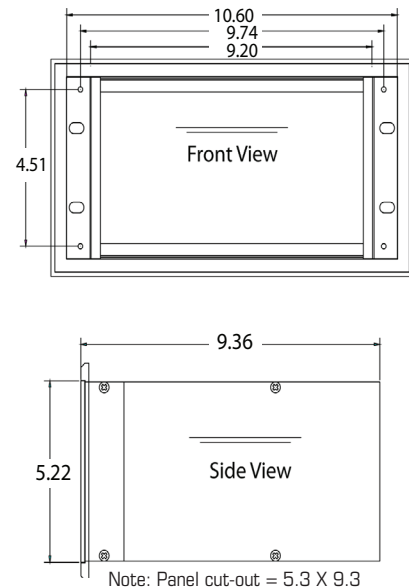|	
10-0144	Auxiliary relay board adds 5 amp Form C common relays for Alarm 1, Alarm 2 and Horn
10-0158	8 channel 4-20mA analog input board
10-0167	8 channel 4-20mA analog output board
10-0195	8 channel discrete 5 amp Form C relay board configurable for Alarm 1, Alarm 2 or FAULT
10-0170	8 channel resistive/RTD/mA input board
10-0191	8 channel catalytic bead sensor input board
10-0192	Dual catalytic bead modules for 10-0191
10-0172	24VDC 150 Watt power supply
10-0229	Printer interface board (serial / parallel)
10-0178	Expansion NEMA 4X enclosure for 8 options
10-0208	Full 19" rack (Supports one or two 71-03's)
ST-71-HMI	ST-71 HMI software

ST-71N4 Nema 4X Wall Mount

71-01

ST-71XP Nema 7 Explosion Proof

71-02

ALL DIMENSIONS IN INCHES

ST-71PM Rack/Panel Mount
(19" Rack Spreader Plates Not Shown)

71-04

Note: Panel cut-out = 5.3 X 9.3