CONTROL AND MONITOR SINGLE OR MULTI-SENSOR SYSTEMS FOR RUGGED AND HARSH ENVIRONMENTS

The RPC-90x is a 4th generation programmable controller that combines advanced signal-processing capabilities with rugged reliability for new and retrofit projects.

Five fully-sealed push buttons within a heavy-duty 316 stainless steel front panel access and easy-to-follow English language menu system for sensor calibration, I/O channel configuration, alarm settings, network settings and screen layout – all intuitive and right at your fingertips.

Measurement parameters are displayed on a bright (EL) display for unmatched readability in all light, angle and temperature conditions. Eight precision analog inputs support current, voltage, and strain gauge sensors, while four counter inputs support a wide range of rotational sensors. These inputs can be user-configured for nearly any measurement type such as tension, torque, temperature, etc. Serial and Ethernet networking capability, and several data logging options provide flexibility in all types of industrial applications.

FEATURES AND BENEFITS

- Full programmability via English language menus
- 320x240 electroluminescent (EL) display
- ›160° readability in all light conditions
- Twelve alarms, independently linked to any measurement
- Configurable measurements
- Multiple modes of analog sensor calibration
- Network configurable
- On-screen diagnostics /alarm log
- RS-485, RS-232, USB Ports
- Dual Ethernet Ports
- Onboard Webserver
- Data sharing between displays over RS-232/RS-485/ Ethernet
- Internal and external data logging available to internal memory, USB and PC application
- Customized data readout with 4 suitable virtual screens
- RPC-LINK protocol to connect other RPC products
- Field upgradable software via external USB or internal webserver
- 4 of 5 key functions configurable from menu system

PROGRAMMABLE CONTROLLERS • TENSIOMETERS • SOFTWARE

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PROGRAMMABLE CONTROLLER

General Specifications

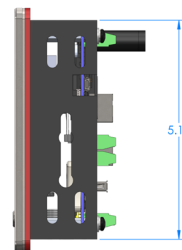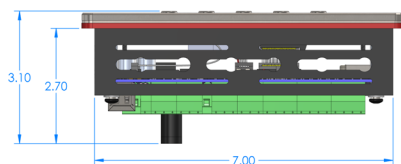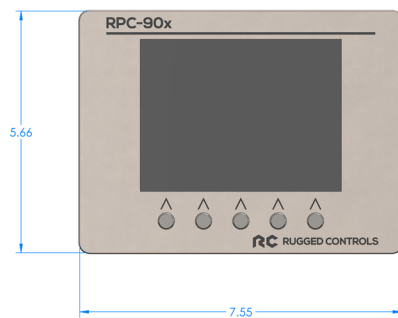|	
Display	320x240 graphic, EL Readable in all conditions
Enclosure Size	H 5.7" x W 7.6" x D 3.1"
Panel Cutout	H 5.25" x W 7.15"
Operating Temperature	-40°C to 75°C standard*
Environmental	Waterproof front panel
Power	0.41 Amp @ 24VDC (9.5-36VDC)

Features

- Single Board PCB Design
- Internal logging to on-board eMMC
- USB Host port for USB datalogging
- Dual Ethernet ports - independent mode
- MODBUS TCP/IP and MODBUS RTU
- On-screen diagnostics
- Configuration security
- On-board webserver and web application for remote parameter viewing, data logging file management, build selection, backup and settings profile selection
- RPC-LINK protocol to connect to other RPC-90x or 80x products
- Field upgradable software via USB or webserver
- High speed data capture- 1000 Hz
- Up to four active screens
- Silicone mounting gasket

Applications:

- **SINGLE/MULTI-WINCH**
- **POWER TONG**
- **PUMP MONITORING**
- **BULK TANK WEIGHT**
- **CRANE MONITORING**
- **TAPS SHEAVE**
- **NITRO/KILL/CEMENT TRUCK**
- **JACK-UP LEG DISPLACEMENT**
- **WEIGH INDICATOR - WELL SERVICING**

Instrument Specifications

Analog Input High Level	4 channels 4-20 mA, 0-5VDC, 0-10VDC, ± 5VDC, ± 10VDC
Analog Input Low Level	4 channels ± 20 mV, ± 100 mV
Sensor Excitation	Regulated +5/+12/+24VDC NAMUR sensor interface Precision Strain Gage Excitation
Analog Output	4 channels 4-20 mA, 0-10VDC, 0-5VDC ± 5VDC
Count Input	4 channels Quadrature x1, x2, x4, Count/Direction Up/Down counter 1 Channel Differential 10kHz Bandwidth*
Output Relays	4 channels, isolated* SPDT dry contact: 125VAC 60VDC @ 1 Amp*
Digital Input	4 channels, 0-60VDC, Trigger level: 2.5V
Serial Communication	RS-485, isolated, half-duplex RS-232 Dual Ethernet, 10 Base-T, TCP/UDP
Alarms	Measurement Parameters High and low setpoints (any measurement) Accessible via front panel menu interface Filtering, delay, deadband adjustments
Approvals	NEMA 4X Per NEMA-250:2018 Hosedown/Impact RPC-90x-HA UL Certified*

5.66

7.55

5.13

3.10   2.70

7.00

Dimensions in Inches
*see manual