



# RTS

## Remote Telemetry System from RKI Corporation

RKI Corporation's Remote Telemetry System (RTS) offers a powerful, flexible solution that can expand as your application requirements grow.

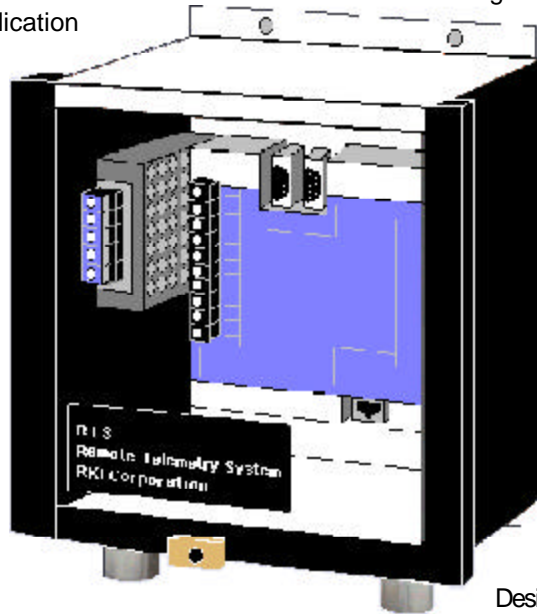
Configured with ISaGRAF IEC 61131-3 programming software, the RTS provides 32-bit processing capabilities that can support Ethernet, serial, wireless, hard wire, or dial up communications, as well as voice pager and email alarm annunciation.

The RTS is equipped with a low power industrial supply with a standard 85 to 265 VAC/ 110 to 330 VDC power input, or optional 24 VAC/ VDC ±15% or solar power.

The RTS maintains two RS-232 serial ports; the second is configurable for use as RS-485. A 10BaseT high speed Ethernet communications port and an additional, optional internal communications port (RTS-D and RTS-W) which may be ordered as a spread spectrum radio (900MHz or 2.4GHz) or a 56K telephone modem. Utilizing the optional internal telephone modem provides alarm dial out and remote dial in capabilities over a secure communication link. By using the optional built in spread spectrum radio and the proper field installation, you can develop extensive remote wireless networks, fully capable of providing localized control, telemetry, or peer-to-peer communications.

Supporting industry standard protocols such as Modbus, Modbus TCP/IP, the RTS can be easily integrated into existing factory Local Area

Networks (LANs) and SCADA systems, including all of the top HMI software packages (Wonderware, Intellusion, Iconics). No special drivers are needed. Point-and-click, MMI interface, and other tools provide powerful, yet easy to use configuration capabilities and eliminate the time and expense of complex programming.



Designed to meet

NEMA 4X, (IP66) ratings, the RTS' enclosure has a clear, lockable front cover allowing easy viewing and prevention of tampering or accidental exposure to environmental conditions.

No one has more experience with the RTS than IACD. We invite you to contact us today to discuss your specific needs.

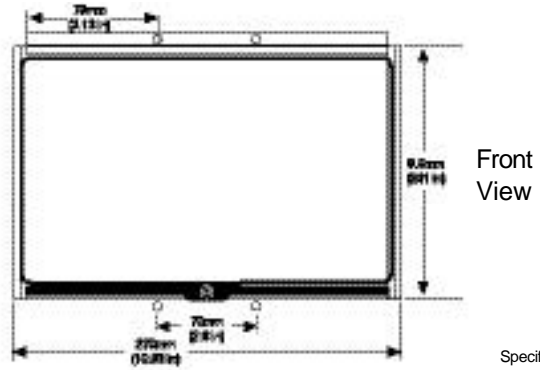
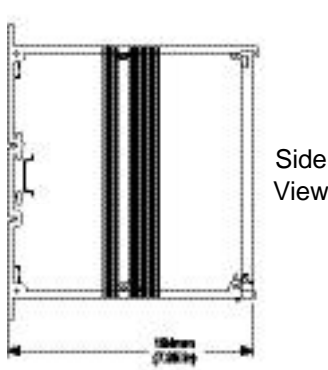
At a Glance...

- Programmable Logic
- Remote Program Updates
- Email with attachments
- Ethernet and Web Server
- Data logging, alarm logging and paging functions
- Built-in Analog/Discrete I/O, HMI/MMI, 32-bit Math and PID Control
- I/O Expansion to 8000 points
- 3 year factory warranty

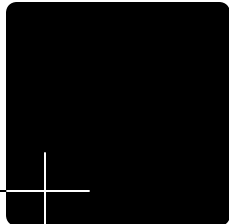
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# RTS SPECIFICATIONS

<p><b>Universal (Analog/Discrete) Inputs</b></p> <p>Quantity: 8 / 4*</p> <p>Analog Input Signals</p> <p>Voltage: 0 or 1 to 5Vdc</p> <p>Current: 0 or 4 to 20mA</p> <p>Resistance: 0 to 65K ohms</p> <p>Temperature Sensor: 10K thermistor (Type I &amp; II)</p> <p>Discrete Input Signals: Dry Contact Closure</p> <p>Discrete InWetting Current: 0.5mA (10K resistor to 5Vdc)</p> <p>Input Overload Tolerance: Input current limited to 50mA Input Voltage limited at 6Vdc</p> <p>Overload Transient Protection: Transorb/Self Resetting Polyfuse</p> <p>Analog resolution: 10 bits (1 part in 1024)</p> <p>Analog Non-linearity: 0.5 LSB (0.05%)</p> <p>Temperature Coefficient</p> <p>5Vdc: 100ppm (0.1 LSB) per °C</p> <p>20mA and Thermistor: 125ppm (0.125 LSB) per °C</p> <p>DI Pulse Counting Rate: up to 500Hz (50% DC)</p>	<p><b>Communications Options (one only per controller)</b></p> <p>Internal Spread Spectrum Radio 900MHz, 1W, up to 115Kbaud</p> <p>2.4GHz, 0.5W, up to 115Kbaud</p> <p>Telephone modem with voice: 56K Baud, PC compatible</p>
<p><b>Analog Outputs</b></p> <p>Quantity: 3 / 2*</p> <p>Output type: 0 or 4-20mA</p> <p>Resolution: 10 bits (1 part in 1024)</p> <p>Overload/Transient Protection: Transorb/Self Resetting Polyfuse</p>	<p><b>Control &amp; Communications Processor</b></p> <p>CPU: Intel 386EX, 25MHz</p> <p>Memory: 2MB Flash, 1MB RAM</p> <p>Real Time Clock: Dallas DS1689S (PC compatible)</p>
<p><b>Discrete Inputs</b></p> <p>Quantity: 12 / 10*</p> <p>Input type: Optically isolated with 8/2 split shared isolated commons, AC/DC</p> <p>ON/OFF input levels: 9Vac/Vdc (min)/ 6VacVdc max</p> <p>Max. input level: 50Vac/Vdc</p> <p>Max.DI Pulse Counting Rate: DI1 to 8: 40Hz, D19 &amp; 5KHz</p>	<p><b>Input/Output (I/O) RISC Processor</b></p> <p>CPU: Atmel ATMEGA16</p> <p>memory: 16KB Flash, 1KB RAM</p>
<p><b>Discrete Outputs</b></p> <p>Quantity: 8 / 4*</p> <p>Output type: Relay, Form A (normally open)</p> <p>Output rating</p> <p>AC: 250Vac; 10A load@125 Vac</p> <p>DC: 30 Vdc; 5A load@30 Vdc</p>	<p><b>Software</b></p> <p>IEC 61131-3 (ISaGRAF): Ladder Diagram (LD) Structured Text (ST) Sequential Function Chart (SFC) Functional Block Diagram (FBD) Instruction List (IL) Flow Chart</p> <p>C/C++: Supports Borland v3.1 -5.0 w/ control and communication point-and-click configuration of Serial communications Modbus RTU, Master or Slave Bricknet (peer-to-peer SCADA) Modbus TCP/IP, HTTP, FTP, Telnet</p> <p>SCADABuilder: ANSI/VT100 -serial data links, Telnet over Ethernet up to flash memory capacity</p> <p>Ethernet Communications</p> <p>Simple MMI</p> <p>Data and Alarm Logging</p>
<p><b>Communications</b></p> <p>Serial Port Interfaces</p> <p>COM #1 and COM #2: RS-232, 9 pin D Male</p> <p>COM #2 only: RS-485, 2-pin Terminal Block</p> <p>Ethernet Port: 10Base-T (10 Mb/sec), RJ-45</p>	<p><b>Power</b></p> <p>Input voltage range: 85-265VAC (47-440Hz) 110-330VDC (optional 24VAC/VDC)</p> <p><b>Enclosure</b></p> <p>Dimensions: height: 9.5" (241mm) length: 10.65" (270mm) depth: 7.25" (184mm)</p> <p><b>Operating Conditions</b></p> <p>Temperature: -40°C to +75°C (-40°F to 167°F)</p> <p>Humidity: 5-85% RH (non-condensing)</p>



Specifications subject to change without notice.  
\* Reduced I/O count when ordering dial-up and wireless versions



Remote Telemetry System Model

	RTS-E Ethernet/Serial	RTS-D Dial-up	RTS-W Wireless
Standard	\$1,260.00	\$1,695.00	\$2,495.00
24V	\$1,195.00	\$1,640.00	\$2,430.00
Solar	\$2,545.00	\$2,995.00	\$3,775.00

Power

Accessories/ Services

Line Modems Requires a 12" RTS enclosure
Fiber Converters Requires a 12" RTS enclosure
Lightning Arrestors
Antenna Yagi Omni directional
Coaxial Cable 50 feet 75 feet 100 feet
IACD Configuration

A larger, 12" enclosure is required to accommodate line modems or fiber converter options with the RTS.

When ordering, specify the model, power and accessories. Use the samples shown below to guide you.

Contact IACD for pricing on accessories and other services.

Sample:

**Model / Power / Accessory**

RTS-E / 24V / None

RTS-W / Solar / Lightning Arrestor

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