



**RTU32R**

**The universal rack mount controller for your infrastructure and utility application**



**PRODUCT HIGHLIGHTS**

- 500MHz 32bit x86 CPU
- 128MB RAM, 128MB FLASH
- 2x LAN, 2x Serial, 2x USB
- Embedded Web Server/HMI
- Sequence of Events Recorder
- Modbus/DNP3/IEC61850/SNMP
- Fast IO scan time (<5mS)
- 12VDC/24VDC/240VAC P/S
  - o Integrated UPS option
- 48DI, 8DO, 4AI with removable DB37F/DB25F rear connections
  - o IO expansion (>500 IO)
  - o IRU format RTU and expansion IO

**OVERVIEW**

The RTU32R Series is based on an x86 500MHz 32-bit, industrial embedded CPU platform, providing flexible RTU/PLC functionality for a wide range of monitoring and control applications in the utility and infrastructure markets. Physical communication interfaces include 2x independent LAN 10/100MBit/s port, 2x RS232 COM ports and 2x USB ports. The USB ports allow easy expansion of memory and/or ports via memory sticks, USB-Ethernet interfaces etc. The RTU32R supports external communication devices like data radios, GSM/GPRS/3G, Wi-Fi and PSTN modems and also includes VGA monitor and keyboard/mouse interfaces, allowing flexible local and remote HMI display.

The RTU32R has a flexible and open Windows CE Embedded Real Time Operating System, which combined with the WorkSuite IEC61131-3 logic 'engine' allows the RTU32R to be used in demanding applications where advanced control, communication and secure data handling is required. The RTU32R includes a variety of standard and open serial and IP style protocol interfaces such as Modbus, IEC61850, IEC60870, DNP3 and SNMP. A web server allows for rapid setup of the RTU configuration parameters (IP address, Time Sync options, IO options etc) and it also allows viewing of RTU data in a graphical format. Database and logic functions for management of control and communication are configured in the Broderen IEC61131 WorkSuite – that provides a modern, flexible, integrated development environment.

# TECHNICAL SPECIFICATIONS



CPU	32bit AMD Geode LX800 at 500MHz, WinCE 6.0 Operating System
Memory	128MB SDRAM (supports up to 512MB RAM), 128MB -4GB removable Compact Flash card
Real time clock	Integrated and battery backed RTC with 1mSec resolution
COM ports (2)	2x RS232 DB9M
LAN port (2)	2x independent 10/100Mbps RJ45
USB ports (2)	USB2.0, Type A
IO Local Bus	RJ45 for local IO expansion modules (add up to 32 IO modules per RTU, >500 IO)
LED Indications	Power, System, Run, I/O, COM1, COM2, LAN1, LAN2, one for each DI and DO.
Local HMI Interface	VGA (high density DB15F), PS/2 (KB/mouse/touch screen can also connect via USB)
Isolation – Digital Inputs	1kV AC (input to electronics)
Isolation – Digital Outputs	2kV AC 50Hz 1 min (IEC255-5), 4kV 50uS impulse withstand (IEC255-5)
Isolation – Analog Inputs	500V (input to input) – differential, flying capacitor inputs, with solid state multiplexer
Temperature - Ambient	Storage: -40 to +85C, Operation: -10 to +60C
Climatic Tests – IEC60068-2	Cold: -10C, 8 hours, Dry Heat: +55C, 8 hours, Damp Heat: 40C, 95% RH 8 hours
Mounting / Dimensions	1U High 19" rack mount, 250mm depth (excluding rear connectors), weight approx. 3kg
Housing / IP Rating	Black corrosion protected light duty steel, IP20
Digital Inputs (48)	48x opto isolated bipolar inputs 10-30/30-60VDC
Digital/Relay Outputs (8)	8x potential free SPST-NO contacts (individual commons)
Analog Inputs (4)	4x isolated 14bit analog inputs, software configurable 0-5/10V, 0/4-20mA, -10-+10V
Power Supply Options (3)	12VDC, 24-48VDC, 110-240VAC
Standard protocols include	SNMP, SNMP Agent (including Traps)
Optional protocols include	Modbus TCP/Serial (Master & Slave), DNP3 TCP/Serial (Slave), IEC60870-101/103/104, DNP3 Master WITS, Ethernet/IP, IEC61850 (Client& Server), PROFIBUS/ ProfiNET SNMP

## RTU32 Order code example

## RC-60IO /2 2 1 B 01 30 .P6

RTU32R Rack Mount Controller

48DI/8DO/4AI

500MHz x86 CPU

128MB RAM/128MB Flash

256MB RAM/128MB Flash

Standard Configuration

Branding – Brodersen

