



## RTU32 RTU/PLC

### Bridging the gap between Industrial PC, RTU & PLC



#### PRODUCT HIGHLIGHTS

- 500MHz 32bit x86 CPU
- 128MB FLASH, 128MB/256MB RAM
- 2x LAN, 2x Serial, 2x USB
- Embedded Web Server/HMI
- Sequence of Events Recorder
- Modbus/DNP3/IEC61850
- Fast IO scan time (<5mS)
- 12VDC/24VDC/240VAC P/S
- Integrated UPS option
- 16DI, 4DO, 4AI, 2AO
- IO expansion (>500 IO)

#### OVERVIEW

The RTU32 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, 1x RS232, 1x RS232/RS485 COM ports (option for up to 6x serial ports) and 2x USB ports. The USB ports allow easy expansion of memory and/or ports via memory sticks, USB-Ethernet interfaces etc. The RTU32 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 RTU32 has a flexible and open Windows CE Embedded Real Time Operating System, which combined with the WorkSuite IEC61131-3 logic 'engine' allows the RTU32 to be used in demanding applications where advanced control, communication and secure data handling is required. The RTU32 includes a variety of standard and open serial and IP style protocol interfaces such as Modbus, IEC61850, IEC60870 and DNP3. 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 Brodersen IEC61131-3 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 CompactFlash card
Real time clock	Integrated and battery backed RTC with 1mSec resolution
COM ports (2-6)	1x RS232 DB9M, 1x RS232/RS422/RS485 DB9M, option for 6x serial ports
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 IO	2kV AC (input or output to electronics)
Isolation – Analog Inputs	500V (input to input) – differential, flying capacitor inputs, with solid state multiplexer
Temperature - Ambient	Storage: -40 to +85C, Operation: -20 to +60C
Climatic Tests –	IEC60068-2 Cold: -10C, 8 hours, Dry Heat: +55C, 8 hours, Damp Heat: 40C, 95% RH 8 hours
Mounting / Dimensions	DIN rail or wall mount, 189mmW x 94mmH x 101mmD, weight approx. 1.5kg
Housing / IP Rating	Black corrosion protected aluminium, IP20
Digital Inputs (16)	16x opto isolated inputs 10-30VDC, can also function as 100Hz input counters
Digital/Relay Outputs (4)	4x 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
Analog Outputs (2)	2x sourced 14bit analog outputs
Power Supply Options (2)	110-240VAC or 24-48VDC, with 12VDC output
Wide range of PLC/RTU protocols	Modbus TCP/Serial (Master & Slave), DNP3 with Secure Authentication TCP/Serial (Master & Slave), DNP3 WITS, AB Ethernet/IP, IEC60870-101/103/104, IEC61850 (Client

## RTU32 Order code example

## UCN-26IOA /2 3 1 B 01 30 .D

RTU32 PLC/Industrial Controller	UCN -	.0	No IO on RTU
Basic – without IO	B	.D	Standard Analog/Digital Range
16DI/4DO/4AI/2AO	26IO		
500MHz x86 CPU	/2	10	12VDC Power Supply
128MB RAM/128MB Flash /1MB NV RAM	3	30	24-48VDC Power Supply
256MB RAM/128MB Flash /1MB NV RAM	4		
Standard Configuration	1	01	COM1, COM2: RS232
Branding – Brodersen	B	02	COM1-COM6: RS232
		03	COM1,3-6: RS232, COM2: RS485
		04	COM1: RS232, COM2: RS485
		05	COM1,2: RS232, PROFIBUS DP M
		06	COM1: 232, COM2: 485 DP M
		07	COM1: 232, PROFIBUS DP S
		08	COM1-COM8, RS485 isolated 3kV

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