



RTU32S

RTU32S Series – Small Compact Utility RTU



PRODUCT HIGHLIGHTS

- Compact, Low-Profile Design with Low Power Consumption
- 200MHz 32bit ARM9 CPU
- 64MB RAM, 128MB FLASH
- 1x LAN, 3x Serial, 2x USB
- Modbus/DNP3/IEC61850
- 12VDC/24VDC/240VAC P/S
- Various integrated IO mixes;
 - o No IO
 - o 16DI, 16DO
 - o 4AI, 16DI, 8DO
 - o supports IO expansion

OVERVIEW

The RTU32S Series is based on an ARM9 200MHz 32-bit, industrial embedded CPU platform, providing flexible RTU/PLC functionality for smaller remote applications in the utility and infrastructure markets. Physical communication interfaces include 1x LAN 10/100MBit/s port, 3x RS232 COM ports, and 2xUSB ports. The USB ports allow easy expansion of memory and/or ports via memory sticks, USB-Ethernet interfaces etc. The RTU32S supports internal or external communication devices like data radios, GSM/GPRS/3G, Wi-Fi and PSTN modems, making it the perfect future proof solution for new applications.

The RTU32S has a flexible and open Windows CE Embedded Real Time Operating System, which combined with the WorkSuite IEC61131-3 logic 'engine' allows the RTU32S to be used in any application with control, communication and secure data handling. The RTU32S 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 WorkSuite– that provides a modern, flexible, integrated development environment.

TECHNICAL SPECIFICATIONS

CPU	Nuvoton 32bit W90P910 ARM9 200MHz, WinCE 6.0 Operating System
Memory	64MB SDRAM, 128MB NAND Flash, optional - removable SD Flash card
Real time clock	Integrated and battery backed RTC with 1mSec resolution
COM ports (3)	1x RS232 (full HW handshake) DB9M, 1x RS232 DB9M, 1x RS232 2-wire via 3pin connector
LAN port (1)	1x 10/100Mbps RJ45
USB ports (2)	USB2.0, Type A
IO Local Bus	RJ45 for local IO expansion modules (add up to 12 IO modules per RTU)
LED Indications	Power, CPU, Run, I/O, COM1, COM2, COM3, LAN1, one for each DI and DO.
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, 226mmW x 80mmH x 80mmD, weight approx. 0.8kg
Housing / IP Rating	Black corrosion protected aluminium, IP20



Integrated IO Types (3)	Option – no IO	Option – 28IO	Option – 32IO
Digital Inputs – opto isolated, 10-30VDC	0	16	16
Digital Outputs – opto isolated PNP 10-30VDC	0	8	16
Analog Inputs - 0-2/5/10VDC, 0/4-20mA 12bit	0	4	0

Power Supply Types (3)	Option - 00	Option - 10	Option - 30
Supply Voltage - nominal	12-24VDC	115-240VAC	24-48VDC
Supply Voltage - range	10.8-30VDC	90-265VAC	40-70Hz 20-60VDC
Power Consumption - max	8W	15W	14W
Power Consumption - typical	3.6W	5W	5W

RTU32S Order code example

BRS-28IO /1 A 0 10 .21

RTU32S

Basic - without IO

16DI/8DO/4AI

16DI/16DO

128MB SD Flash

Standard Configuration

No internal options

BRS-

A

28IO

16DIO

/1

A

0

.00 No IO on RTU

.1x 0-10VDC Analog Input Range

.2x 4-20mA Analog Input Range

.6x 0-20mA Analog Input Range

.x1 12-24VDC Unipolar Digital Inputs

05 12-24VDC Power Supply

10 110-240VAC Power Supply

30 24-48VDC Power Supply