RTU32M

A compact, modular product solution featuring hot swap, distributed I/O, redundancy and more…

BRODERSEN
simplifying systems
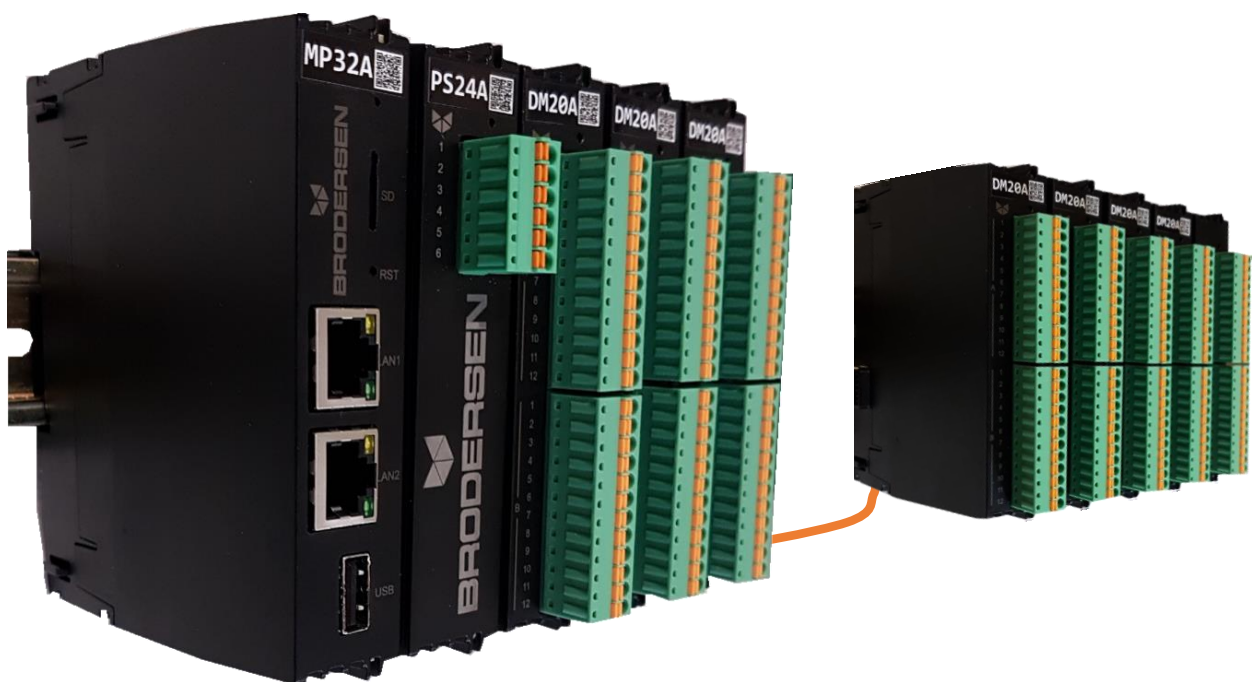
'Click together' to build whatever you want is well known in Denmark...

Flexible Architecture
Start with a CPU and power supply, then add I/O or system modules (4x serial, 4x Ethernet, VGA etc).

Powerful and 'future proof' CPU
The i.MX6 200-900MHz processor runs embedded Linux and has guaranteed availability until 2030.

Distributed I/O in a fixed or segmented arrangement
Create an RTU solution using up to 250 I/O modules, that can be distributed in multiple segments/blocks.

Smart Modules with ID, Data Quality and Timestamps
Enhanced I/O processing. In addition to reporting of data values – modules also report data quality, firmware and hardware revision, status, timestamp of last change (1ms resolution) and serial numbers.

Compact Size – with front terminations
Each module is only 110mmH x 25mmW x 95mmD.

Assembly is easy – connect the bus modules to form the backplane, then plug in the 'hot swappable' modules!

DIN Rail Mount – two part modules
Each module comprises of a lower backplane bus portion that mounts on the DIN rail and an upper module portion.

Hot Swap Modules
A module can be replaced/swapped while the RTU is operational. Module configuration parameters will then be automatically updated.

Brodersen have been building RTUs for almost 50 years

Brodersen RTU products are used in a wide range of applications around the world that include;

Energy
- Substation Automation
- Distribution Systems
- Windfarms

Oil and Gas
- Distribution
- Metering

Communications
- Protocol Gateways
- Equipment Control
- Network Management

Water and Waste Water
- Storage and Distribution
- Pump Stations and Treatment Plants

Rail and Road
- Road and Tunnel Management (including the Eurotunnel)
- Level Crossing Monitoring and Traction Control (trackside power systems)

Designed for Secure Monitoring and Control of Critical Infrastructure Applications – around the world

Large Installed Base - Proven Design Experience
Brodersen products are designed and built to last. The RTU32M CPU architecture and backplane interface to the I/O has changed considerably, but the I/O module signal interfaces are based on designs that are well proven in harsh industrial environments such as substations and waste water pump stations.

Redundancy – add another P/S or CPU module
Add another power supply to share the load and takeover if the other unit fails, or add another CPU module to increase the system availability.

WiFi Support – RTU setup from a tablet/phone
The option for WiFi allows secure access to the RTU web server using a browser to easily manage RTU configuration and view data values/graphics.

Industrial Security Requirements
Security of data, restriction of access to configuration setup and version control have all been enhanced to meet the latest industry requirements and expectations. Other new features include HTTPS (secure/encrypted web connections) and VPN (with support for multiple connections).

Network Redundancy Protocols - HSR and PRP
The RTU32M includes HSR (High Availability Seamless Redundancy) and PRP (Parallel Redundancy Protocol) and Network Bonding. These interfaces are used in substation automation applications to provide ring and parallel network solutions.

# WorkSuite – software tools to manage your application

PLC Functionality

WorkSuite includes 'wizards' for creation of the I/O setup and program variables. Create and edit logic applications using IEC61131-3 function blocks, ladder logic and structured text programs.

Utility Industry Protocols

Many products claim to have RTU functionality – but most do not have a full suite of protocols. RTU32M protocols include; MODBUS, IEC60870, DNP3, IEC61850, Ethernet/IP, Profinet, MQTT and SNMP.
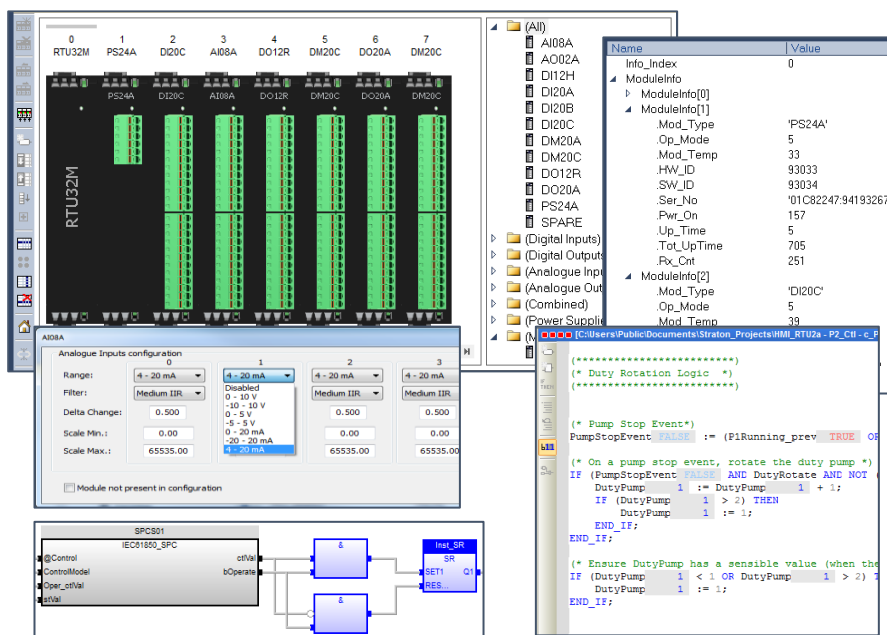
Web Server for configuration and html user displays
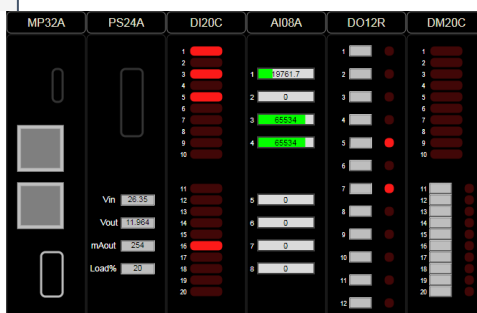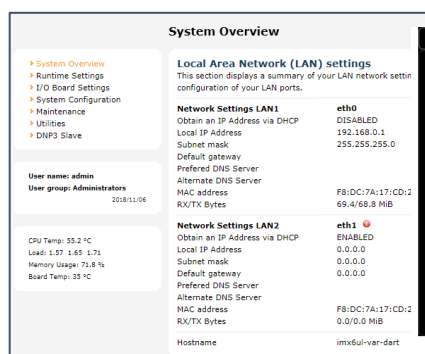
Easy access to setup/data

The RTU32M web Server allows access to the RTU setup. Change port settings, update firmware, monitor network activity and more from a web interface. Publish user displays as html pages for display on your tablet or phone.

Specification Overview – module types

System modules (left of power supply)	
PS24A	Power Supply 10-30VDC
MP32A	CPU 200-900MHz, 128MB Flash, 128-256MB RAM, 2x 10/100 LAN, 1x USB
SP04A	4x Serial Ports
ET04A	4x 10/100 Ethernet
IM51A	3G/4G modem (SMA ant.)
IV1A	1x VGA port (15 pin)

I/O modules (right of power supply)	
DI20A/B/C	20ch DI (10-30/30-60/CTR)
DI12H	12ch DI (90-140VDC ch-ch isolation)
DM20A/C	10ch DI/CTR & 10ch DO
DO08R	8ch Relay Out (NO/NC)
DO12R	12ch Relay Out (NO)
DO20A	20ch Digital Out
AI08A	8ch Analog In
AO02A	2ch Analog Out
IO14A/B	3ch AI (mA/V), 1ch AO, 8ch DI, 2ch DO

- more I/O modules will follow