

RCU602



KONGSBERG

REMOTE CONTROLLER UNIT

RCU602 is a high performance, general purpose, real-time process control computer for use in a wide variety of KM system applications in both on and offshore installations. The processor core is an embedded Power PC™ architecture. The unit is prepared for single, dual and triple unit redundancy topologies.

Application types

- Dynamic Positioning Systems
- Thruster Control/Steering Systems
- Navigation Sensor Integrator
- Integrated Process Control Systems
- Alarm and monitoring Systems

Benefits

- Extended Built-in Self Test (BIST)
- Prepared for online remote diagnostics
- Simple firmware upgrade
- Bootable from file server or local flash memory
- Easy installation and replacement
 1. DIN Rail mounting
 2. All connections are pluggable
 3. Three digit address switches
- Hot swap in redundant applications, dual and triple Hot-Standby redundancy, 1oo2 redundancy
- Run/Error Status LED indication

Function

- Dual ethernet LAN process network
- Dual Redundancy Net interface for redundant RCU configuration
- Dual field networks for interfacing 3rd party ethernet field devices
- Dual Remote I/O process BUS (RBUS)
- Four general purpose Digital Input channels
- Four general purpose Digital Output channels
- One Watch Dog Digital Output channel
- 24 serial lines for 3rd party interface via RSER200
- Two PROFIBUS channels for 3rd party interface
- Two CANBUS channels for 3rd party interface



Compliant to the following protocols:

1. Modbus (Serial and TCP)
2. NMEA 0183
3. PROFIBUS/PROFIsafe
4. CAN
5. 3rd party vendor specific protocols are available upon request

Power:

1. Redundant power input with power alarm monitoring
2. Inrush current and over-voltage protection
3. Enhanced watchdog with fail-safe function and system status output

TECHNICAL SPECIFICATIONS

KM Item number

RCU602: 383962

Compliance

IACS E10
DnV GL 2.4
IEC 60945
RoHS Directive 2011/65/EU
EMC Directive 2014/30/EU

Environmental

Ambient temperature (operation): -15°C to 70°C
Temperature (storage): -25°C to 70°C
Humidity (operation): max. 95% RH, non-condensing
Humidity (storage): max. 95% RH, non-condensing
IP20 (IEC 60529)

Dimensions

H x W x D: 355 mm, 158 mm, 87 mm
Weight: 1.34 kg
Mounting DIN Rail T35 7.5/15 according to EN 50022

Electrical

Input supply voltage: 24 VDC (+30%, -25%)
Nominal current consumption: Max. 0.75 A
Start-up current: Max. 2.8 A
Power consumption: Max. 20 W
Power connectors: Screw terminals (slotted)
Cable cs: 2.5 mm²

Processor and memory

Processor type: Power PC Host processor P2041
Clock frequency: 1.5 GHz
Memory
- RAM: 2 GB
- Flash: 256 MB for application use

Serial line

Channels: 24 insulated serial lines via RSER200 modules, distributed on 6 shielded RJ45 modular jack connectors
Physical layer on RSER200: RS232, RS422, RS485 and NMEA 0183 multidrop via RSER200-4

Bit rate per channel: Max. 115 kb/s

General purpose I/O channels

Digital Output: 4 x opto-isolated outputs. Max. 30 mA
1 x opto-isolated watchdog (for external interface) Max. 30 mA
Digital Input: 4 x opto-isolated inputs
I/O connectors: Cage clamps
Cable cross section: 0.75 mm²

Lan interface

Process network:
- 2 x RJ45 Ethernet IEEE 802.3 type 10BASE-T/100BASE-TX
Field network:
- 2 x RJ45 Ethernet IEEE 802.3 type 10BASE-T/100BASE-TX
Redundancy Ethernet:
- 2 x RJ45 Ethernet IEEE 802.3 type 100BASE-TX/1000BASE-T

RBUS interface

Connector: 2 x shielded RJ45 modular jack

Field interface

CAN interface: 2 x CANopen/DeviceNet
Bus connectors:
- Cable cross section: 2.5 mm²
Bit rate: Max. 1 Mb/s (DeviceNet not defined above 500kb/s)
PROFIBUS interface: 2 x opto isolated 9 pin female D-Sub connectors
Bit rate: Max. 12 Mb/s

Failure rate

MTBF (SN29500/ 40°C): 22 years.

Specifications subject to change without any further notice.