

# RCU602



KONGSBERG

## RCU602-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 PCTM architecture. The unit is prepared for single, dual and triple unit redundancy topologies.

### BENEFITS

- Extensive built-in self test
- Prepared for online remote diagnostics
- Bookable from file server or local flash memory
- Hot swap in redundant applications, dual triple hot standby redundancy, 1002
- Easy installation and replacement
- Simple and safe FW upgrade
- Status LED

### Functions

- 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

## TECHNICAL DATA

<b>KM Article number</b>	RCU602: 383962
<b>Electrical</b>	
Input supply voltage:	24 VDC (18-31.2 V)
Nominal current consumption:	Max. 0.75 A
Start-up current:	Max. 2.8 A
Power consumption:	Max. 20 W
Power connectors:	<ul style="list-style-type: none"><li>▪ Screw terminals</li><li>▪ Cable cross-section: 2.5 mm<sup>2</sup></li><li>▪ Max. torque 0.4-0.5 Nm</li></ul>
Power:	<ul style="list-style-type: none"><li>▪ Redundant power input with power alarm monitoring</li><li>▪ Inrush current and over-voltage protection</li><li>▪ Enhanced watchdog with fail-safe function and system status output</li></ul>
<b>Compliant to the following protocols</b>	<ul style="list-style-type: none"><li>▪ Modbus (Serial and TCP)</li><li>▪ NMEA 0183</li><li>▪ PROFIBUS/PROFIsafe</li><li>▪ CAN</li><li>▪ 3rd party vendor-specific protocols are available upon request</li></ul>
<b>RBUS interface</b>	
RBUS connectors:	2 x shielded RJ45 modular jack
<b>LAN interface</b>	
Process network:	2 x RJ45 Ethernet IEE 802.3 type 10BASE-T/100BASE-TX
Field network:	2 x RJ45 Ethernet IEE 802.3 type 10BASE-T/100BASE-TX
Redundancy Ethernet:	2 x RJ45 Ethernet IEE 802.3 type 100BASE-T/1000BASE-T
<b>General purpose I/O channels</b>	
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 mm <sup>2</sup>
<b>Field interface</b>	
CAN interface:	2 x CANopen/DeviceNet
Bus connectors:	<ul style="list-style-type: none"><li>▪ 5 pole cage clamps</li><li>▪ Cable cross section: 2.5 mm<sup>2</sup></li></ul>
Bit rate:	Max. 1 Mb/s (DeviceNet not defined above 500 kb/s)
PROFIBUS interface:	2 x opto isolated 9 pin female D-Sub connectors
Bit rate:	Max. 12 Mb/s

<b>Serial line</b>	
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
<b>Compliance</b>	<ul style="list-style-type: none"><li>▪ IACS E10</li><li>▪ DnV GL 2.4</li><li>▪ IEC 60945</li><li>▪ RoHS Directive 2011/65/EU</li><li>▪ EMC Directive 2014/30/EU</li></ul>
<b>Process and memory</b>	
Processor type:	Power PC Host processor P2041
Clock frequency:	1.5 GHz
Memory:	RAM: 2 GB Flash: 256 MB for application use
<b>Environmental specifications</b>	
Ambient temp. and humidity:	
Temp. operation:	-15°C to +70°C
Temp. storage:	-25°C to +70°C
Humidity operation:	Up to 95% RH
Humidity storage:	Up to 95% RH
Protection standards:	IP 20 (IEC 60529)
<b>Mechanical</b>	
HxWxD:	355x158x87 mm
Weight:	1.34 kg
DIN rail vertical mounted:	35 7.5/15
<b>Failure rate</b>	
MTBF (SN29500/40°C):	22 years

