KONGSBERG

RMP201-8

Hardware Module Description

Kongsberg Maritime Part no. 324400

330111/C

Technical specifications

Power specifications	
Input voltage	+24 VDC nominal (+18 - +32 VDC)
Start-up voltage	Minimum 21.6 VDC for minimum 20 ms
Power ON rise time	Maximum 20 ms/V monotonic.
Current consumption	Stand-by current 0.25 A Typical power ON surge at 24 VDC: 1.2 A for 20 ms.
Power ON inrush current	Maximum 1.2 A
Short circuit current	Maximum 1.2 A for 50 ms
Galvanic isolation (power input to module logic)	500 V
RBUS	
Connector (A&B bus)	5 pole T-BUS ™ connector (Phoenix)
Bit rate	2 Mbp/s
Signal Code	Manchester encoded (Self-clocked)
Copper Wire Topology:	
Insulation	500V (Optocoupler)
Physical Layer	RS-485 Multidrop
Cable Attenuation	< 6.5 db / 100m @ 10 MHz (CAT 5)
Cable length	Maximum 200m between repeaters Maximum 3 repeaters
Fibre Optical Topology (w/additional fibre media converter):	
Fibre cable	62.5/125µm. Multi-modus
Connector	ST
Cable length	Maximum1000m (point to point). 500m if fitted in patch-panel topology
Process I/O	
Analog to Digital Converter ADC	16 bit ±10 V range
Linearity	±0.01% FS
Gain	±0.02% FS
Drift	±20 ppm/°C
Offset	±30 mV

Digital to Analog Converter	16 bit ±10 V
Linearity	±0.02% FS
Gain	±0.03% FS
Drift	±30 ppm/°C
Offset	±30 mV
Channel specifications common for Channel 1 – 8	
Voltage input	±10 V
Current input	0–20 mA
Input resistor	300 ohm, ±0.1%
Measurement accuracy	±0.15% FS
Offset	±30 mV
Voltage output	±10 V, ±0.5%, 0.1 mA maximum load
Current output	0–20 mA
Linearity	0.05% FS
Gain	0.05% FS
Measurement accuracy	±0.35% FS
Offset	±0.1 mA
Maximum load resistance	500 ohm
Digital output (channels 1 – 5, 7 only)	100 mA High Side Driver
Short circuit protection	150 mA for 20 ms
Output voltage	Voltage drop at 100 mA is 1.5 VDC, which implies maximum 22.5 VDC as output high voltage
Channel isolation	
Channel 1–5, 7	
Between RBUS and any of channel 1–5, 7	Maximum 500 VDC
Between channels at externally powered loops	Maximum 50 VDC common mode
Channel 6 and 8	
Between RBUS and channel 6 or 8	Maximum 500 VDC
Between channel 6 and 8	Maximum 500 VDC
Watchdog	
I/O Soft Fail-safe time-out	Default value 6000 ms, programmable in the range 100 to 65535 ms (resolution 100 ms)
I/O Hard Fail-safe time-out	Is activated if the internal FW fail to trigger the watchdog within 60 ms
Mechanical specification	
Size (WxHxD)	35 x 130 x 130 mm
Weight	0.35 kg
Mounting	Snap on dual DIN-rail

Connectors:	
Screw Terminals	3.0 mm slotted
Cable cross-section	2.5 mm^2
Environmental requirements	
Operating temperature	-15 °C - +70 °C
Storage temperature	-25 °C - +70 °C
Vibration	Maximum 1.0 g
IP class	IP20
Compliant to standards	IEC 60945 and IACS E10
Life cycle prediction	
Predicted failure rate @ GB 25°C (60% confident, based on chip suppliers data and MIL-HDBK-217F)	13.1 Years