

Distributed Processing Units

Remote Analogue input (RAi-16xe)



KONGSBERG



Description

This analogue input module is a multi purpose flexible device that covers the most common analogue input signal types in a marine automation system. Such as: voltage, current and resistance in different ranges and almost free scaling in technical units.

The module requires 24VDC input power and provides over redundant CAN Open 4.0 high speed field bus, sensor data processed and time stamped.

Functions

- 16 analogue input channels
- Scaled in technical units
- One counter, range: 5 - 500 Hz
- Limit checking
- Alarm block
- Trend
- Time stamping
- Self checking
- Sensor excitation power overload
- CAN net status, error handling

Features

- All parameters are stored in the module
- Remote configuration
- No trimmers or jumpers
- No serviceable parts inside module
- All connections are plugable
- Suitable for direct installation on the main engine
- Module includes status LED's for: Watchdog, running, general information, initialized module and power polarity



Supply voltage

- 18 - 32 VDC

Module consumption

- 7W + sensor excitation power

Operating temperature

- -15°C to +70°C

Storage temperature

- -25°C to +70°C

Max. rel. humidity

- 96% non-condensing

IP Code

- IP20

ENV properties

- IACS E10
- IEC 60945

Vibration

- 4 G

Weight of unit

- 2.0 kg

Mounting

- Screws (4 pcs M5)

Connections, plugable screw terminals

- I/O 4 terminals 2.5 mm²
- Power 4 terminals 2.5 mm²
- CAN bus 4 terminals 2.5 mm²

Signal types

- Voltage range: 1/5/10 [Volt]
- Current range: 1/5/10/20 [mA]
- Technical units: Free range
- Accuracy: ± 0.5 % (of full scale)

RTD: Pt100, Pt1000 [Ω]

- Pt1000 range: 0-200°C, 0-600°C
- Pt100 range: 0-200°C, 0-800°C

Sensor excitation voltage and current:

- 30-40 mA nominal. Fused @ 100mA per channel or 350 mA for the whole module, with overload indicator, and power limiting.

Communication interfaces

- 2 CAN ports for communication with host.

Isolation

- Power: Isolated/floating from module chassis.
- I/O: No isolation between channels. Chassis used as 0 Volt reference.
- CAN: Individually isolated.

BIST (Built In Self Test)

- Module temperature, power and sensor excitation overload.

Type Approval

- DNV, LRS, BV, GL, RINA, NK, ABS, KR, RMR, CCS (allows direct mounting on engines, compressors, etc. in suitable cabinets)

Part number

- 329714

