

Distributed Processing Units Main Engine Interface (MEI)



KONGSBERG



Description

The MEI module is a module with several types of digital and analogue inputs and outputs. All inputs can be used to activate outputs and the values are also reported on CAN.

The module is equipped with a dual CAN-bus interface. Led indication of power, watchdog, status and CAN communications.

Channels 1 and 2 are relay outputs. Maximum inductive load is 3A at 230V.

Channels 3 and 4 are analogue outputs. Current option is set at 4 to 20mA with a maximum load of 550 Ω . Voltage option is 10V.

Channels 5 to 14 are solenoid driver lines with line check (broken only) 18 to 32V with a maximum current of 500mA. Solenoid outputs are, directly supplied from the power supply.

Channels 15 to 28 are digital inputs with line check option. Requires, dry switch or an optical coupler.

Channels 29 to 36 are selectable digital or analogue inputs with line check option. Source current 4 to 20mA.

Channels 34 to 36 are selectable digital or potentiometer (1, 5 or 10k Ω , type wiper) inputs with line check option.

Functions

- 3 channels potentiometer input, 3 wire connection (4.5V, wiper, 0V)
- 5 channels current input, 3 wire connection (24V, current input, 0V)
- 14 channels digital input with line check
- 2 channels current/voltage output $\pm 20\text{mA}$ and $\pm 10\text{V}$
- 10 channels solenoid driver with line check (broken only)
- 2 channels Relay output changeover contacts
- Scaled in technical units
- Limit check
- Alarm and monitoring for all channels
- Trend
- Time stamp of alarms and events (0.001 seconds)
- Self checking
- Sensor excitation power overload
- CAN-bus network status error handling



Technical Specifications

Supply voltage

- 18 to 32 VDC

Voltage scaling

- $\pm 0.1/1/5/10$ [Volts]

Current scaling

- $\pm 1/5/10/20$ [mA]

Isolation

- Power: Fully isolated via DC/DC converter
- Digital input: 0V connected to chassis
- Potentiometer: 0V connected to chassis
- Current input: 0V connected to chassis
- Relay: Isolated
- Solenoid output: No isolation from power
- CAN-bus: Fully isolated via optical coupler

Power consumption

- Nominal 7.5W
- Maximum 10W (solenoid power included)

IP Code

- IP20

EMC properties

- IACS E10
- IEC 60945

Mechanical environment

- IACS E10

Operational temperature

- -15°C to $+70^{\circ}\text{C}$

Storage temperature

- -25°C to $+70^{\circ}\text{C}$

Max relative humidity

- RH 96% with no condensation

Technical units

- Free range

Accuracy

- Analogue input/output $\pm 1\%$

Communication

- 2 x CAN-buses

Weight of unit

- 2.0 kg

BIST (Built In Self Test)

- Module temp.

Type approval

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

