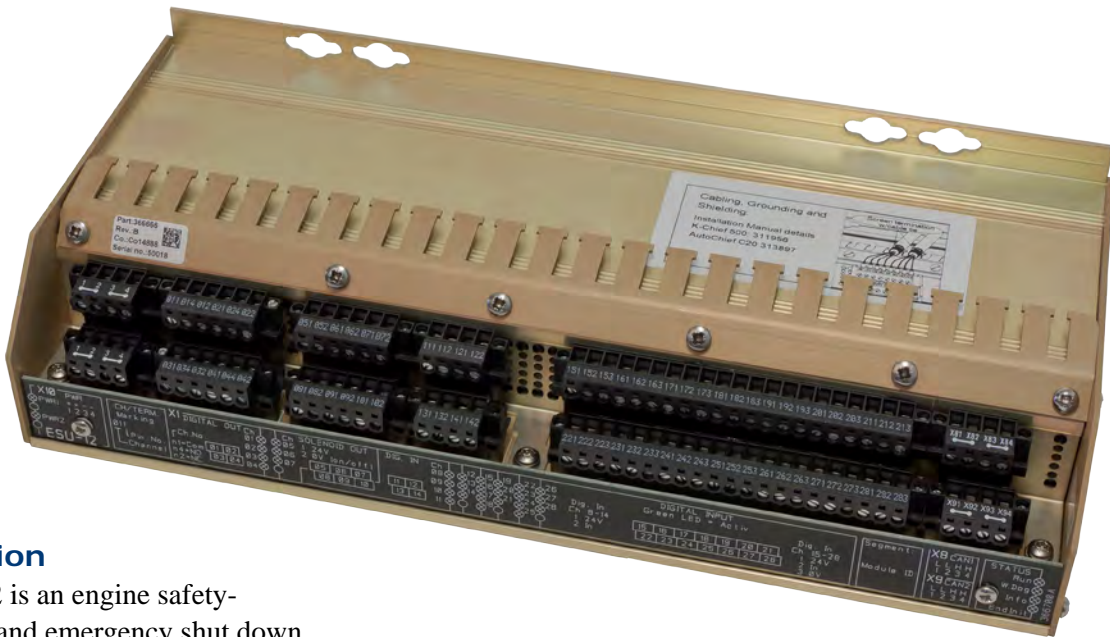


# Distributed Processing Units

## Engine Safety Unit 12 (ESU 12)



KONGSBERG



### Description

The ESU 12 is an engine safety-monitoring and emergency shut down unit.

Main input groups are:

- Engine sensor monitoring
- RPM monitoring
- Manual emergency stop

All parameters and line definitions preset to engine supplier's specifications.

The ESU 12 module uses several digital inputs and outputs. It has two independent power-supply inputs with a built in automatic changeover function between inputs.

If the modules CPU should fail, the digital input channels 8 to 28 connect directly to the output channels 5 to 7.

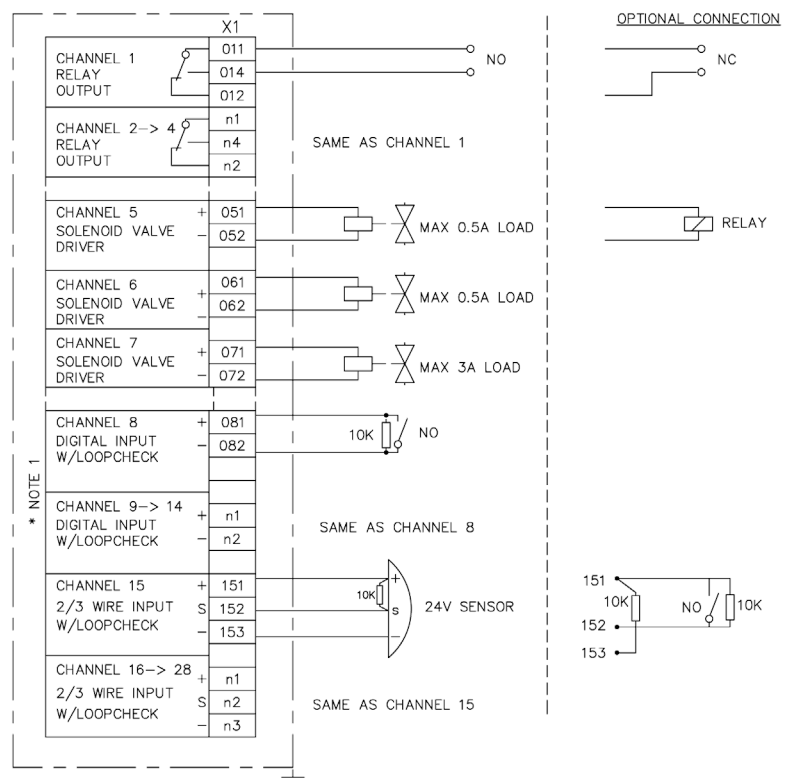
The module is equipped with a dual CAN-bus interface as its main communications line.

Power, watchdog and CAN-bus status can be monitored directly through a built in light emitting diode (LED).

- Multiple built-in redundancy
- Extensive internal self-check features on most lines

### Features

- Four channels Relay output, changeover contacts
- 21 digital input. (7 2-wire, and 14 3-wire channels) all with line check (broken only)
- Dual redundant 24 VDC power input
- Solenoid driver with line check
- Alarm and monitoring for all channels
- Time stamp of alarms and events (0.001 seconds)
- Self-checking
- Power overload detection
- CAN-bus status detection and error handling



## Technical Specifications

### Supply voltage

- 18 to 32 VDC

### Power consumption

- Nominal 7.5W
- Max. 10W + solenoid power

### Ambient operating

- -15°C to +70°C

### Ambient storage

- -25°C to +70°C

### Humidity

- RH set at 96% no condensation

### IP Code

- IP20

### Mechanical environment

- IACS E10 (direct mounting)

### EMC properties

- IACS E10
- IEC 60945

### Communication

- 2 x CAN-bus

### Signal types

- Four channel relay output, changeover contacts 3 A at 230 VAC inductive load.
- 3 channels for solenoid valve driver. 2 with max 0.5A and 1 with max 3A load.
- 7 channel digital input with loop check.
- 14 channel for 2 or 3 wire inputs with loop check. 3 wire is used for sensors requiring +24 Volt and with signal output.

### Terminal opening

- Max. 2.5 mm<sup>2</sup>

### Weight of unit

- 1.7 kg

### Isolation

- Power: Non-isolated
- Digital input: Non-isolated
- Relay output: Isolated
- Solenoid output: Non-isolated

### CAN

- Isolated-galvanic coupler (Optical)

### BIST (built in self-test)

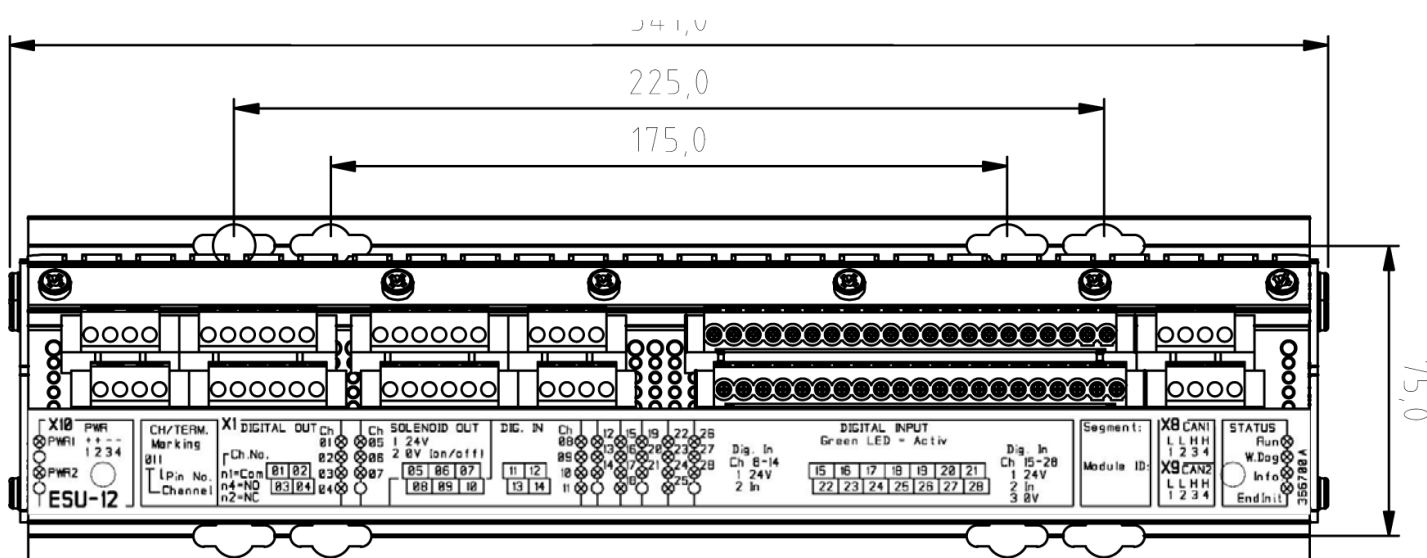
- Module temperature

### 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)

### Part number

- 366666



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Specifications may be subject to change without prior notice

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