

Digital Governor Unit (DGU)

Description

The DGU is a diesel engine speed controller. It is used on the ship's main engine to control the engine RPM.

The desired engine set-point speed is provided by either the ACP or by a manual control lever. Once the set point is established, the DGU maintains the engine RPM at all times.

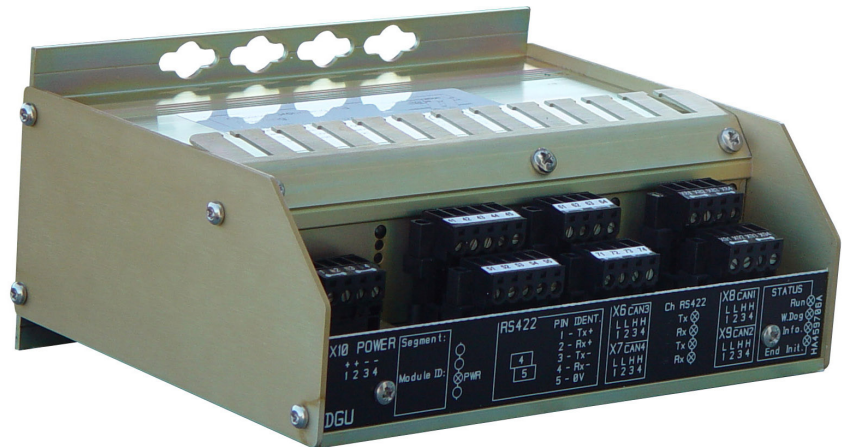
The DGU includes all essential signals related to the main governor functions. It works as an independent unit and will operate even if both CAN networks should fail.

The DGU contains four CAN-buses and two RS485 serial lines. Each port is galvanically isolated.

The input supply voltage of 24 VDC should not be below +18 V or above +32 V. It is galvanically isolated.

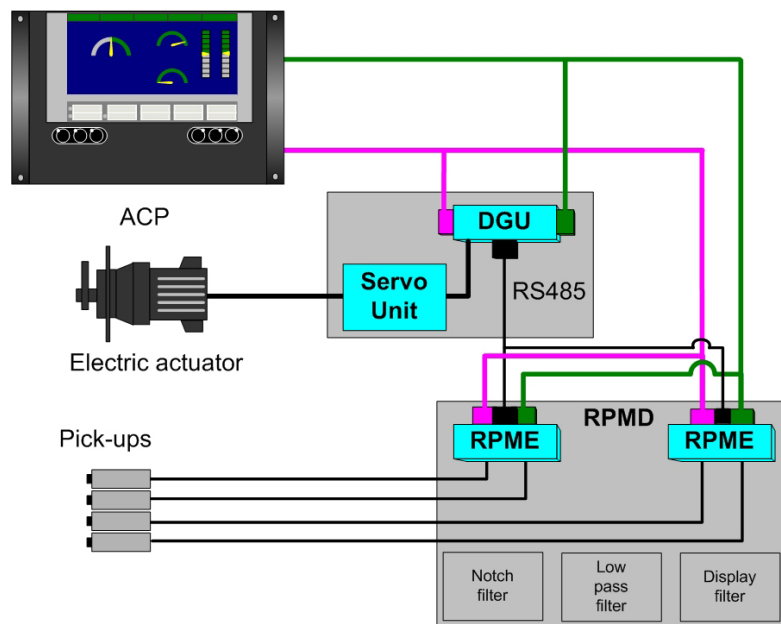
Features

- Scaled in technical units
- Limit check
- Alarm and monitoring for all channels
- Trend
- Time stamp of alarms and events (0.001 seconds)
- Built In Self Test (BIST)
- CAN net status, error handling



Main functions

- Automatic regulation of the main engine RPM
- Automatic limiting functions such as scavenging air and torque
- Manual limiting functions such as RPM and fuel limiters
- Programmed to avoid running in barred speed range (critical RPM)
- Automatic reduction of RPM (slow down) function



Technical specifications

Supply voltage:

- 18 to 32 VDC

Power consumption:

- 7.5 W Nominal
- 10 W Maximum

Ambient operational temperature:

- -15 °C to + 70 °C

Ambient storage temperature:

- -25 °C to + 70 °C

Max relative humidity:

- 96% non-condensing

Mechanical environment:

- DnV Class B
- IACS E10

EMC properties:

- According to IACS E10 and EN60945

Weight of unit:

- 2 kg

Type approval:

- DNV, LRS, BV, GL, RINA, NK, ABS, KR, PRS, MRS (Russia), CCS (China)

BIST (Built In Self Test):

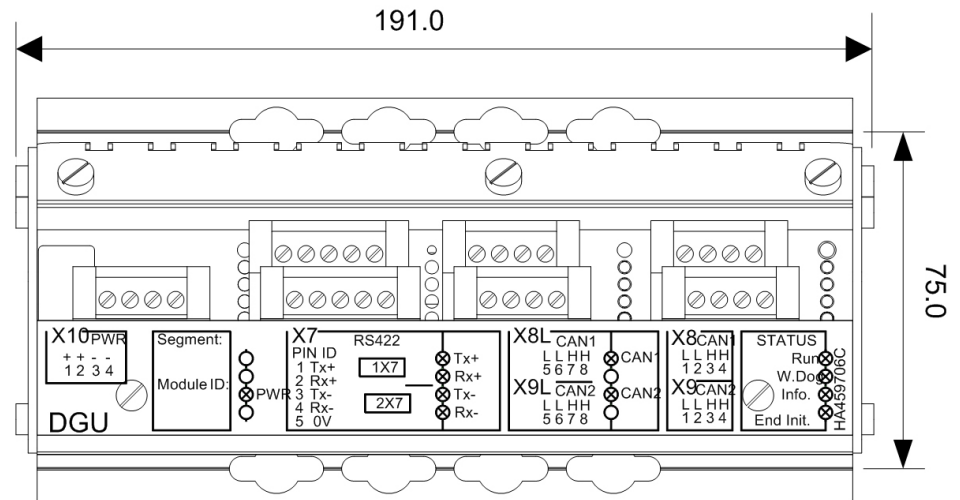
- Module temperature

Isolation:

- Power supply fully isolated using a DC/DC converter
- RS422/485 fully isolated using DC/DC converters and optical couplers
- CAN fully isolated using DC/DC converters and optical couplers

Communication:

- Four CAN interface connections
- Two RS422/485 interface connections



Front view



Side view

Note:

The DGU can be mounted on vibrating surfaces such as engines, compressors and other similar pieces of equipment.

Kongsberg Maritime AS

Bekkajordet 8A
P.O.Box 1009
NO-3189 Horten
Norway

Telephone: +47 815 73 700
Telefax: +47 850 28 028
www.kongsberg.com
km.sales@kongsberg.com

