

TYPE APPROVAL CERTIFICATE

Certificate no.:
TAA000004Z
Revision No:
2

This is to certify:

that the **Safety Unit for Rotating Machinery**

with type designation(s)
M2600

issued to

SELCO ApS
Roskilde, Sjælland, Denmark

is found to comply with

DNV rules for classification – Ships, offshore units, and high speed and light craft

Application:

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Location classes:

Temperature	B
Humidity	B
Vibration	A
EMC	B
Enclosure	Required protection according to the Rules to be provided upon installation on board.

Issued at **Høvik** on **2023-12-04**

This Certificate is valid until **2025-12-31**.

DNV local unit: **Denmark CMC**

Approval Engineer: **Krzysztof Aleksander Jankowski**



for **DNV**

Digitally Signed By: Sneen, Ståle
Location: DNV Høvik, Norway

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

The M2600 Shutdown Unit installed as primary or backup protection device of marine diesel engines. The M2600 design is based entirely on discreet logic. All inputs and outputs of the M2600 have corresponding LED indication showing whether they are active or not. The unit furnishes 10 digital shutdown inputs. One is predefined for over speed and another for emergency stop. All inputs are dry contacts. Output relays are provided for shut down of the engine. The Fuel Valve output relay is used for “energized to run applications”, the stop solenoid output is used for “energized to stop” applications. Additionally the unit provides an output for circuit breaker trip for use with gen-sets. Engine speed (rpm) can be detected from magnetic and inductive pick-ups connected to dedicated inputs. Alternatively the speed can be detected from digital inputs. M2600 provides cable monitoring on all sensor inputs and for the shutdown relay output. Configuration is made solely with the dipswitches and rotary switches on the unit.

HW Type	HW	SW	HW description
M2600	Ver. 3	N/A	Diesel Engine protective shut down unit

Application/Limitation

1. The Type Approval covers hardware listed under Product description.
2. This system is only to be used as engine safety system for emergency, auxiliary and propulsion marine diesel engines.

Approval conditions

The following documentation of the actual application is to be submitted for approval in each case:

- Reference to this Type Approval Certificate
- System block diagram
- Power supply arrangement (may be part of the System block diagram)
- List of control and monitored points
- Test program for certification

Product certificate

Each delivery of the application system is **to be** certified according to Pt.4 Ch.9 Sec.1. The Certification is to be performed at the manufacturer before the system is shipped to the yard.

Type Approval documentation

Technical documentation

Document name	Document number	Revision	Dated
M2600 Shut Down Unit Manual	---	---	2011-01-18
M2600 Shut Down Unit Function- & Hardware Test	---	2.0	
M2600 Series Data sheet	4-A-050313	---	
M2600 Shut Down Unit Fault Analysis Revision	---	---	2015-11-03

ENV/EMC test reports

Document name	Document number	Revision	Dated
Delta Test Report	DANAK-19/14491	---	2014-10-18
Supplementary test report of M2600 according to parts of IACS UR E10, Rev.7 Oct. 2018	P20-0110-9	---	2020-12-04

Periodical assessment report for TAA000004Z, Issued at DNV Denmark CMC, dated 2023-04-18.

Tests carried out

Applicable tests according to class guideline DNV-CG-0339, August 2021.

Marking of product

The products to be marked with:

- Model name
- Manufacturer name
- Serial number

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE