Certificate No:
TAA000032T

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Fire Technical Ancillary Equipment

with type designation(s)
ECS 2000

Issued to
Advanced Pneumatic Marine GmbH
Reinfeld (Holstein), Schleswig-Holstein, **Germany**

is found to comply with
DNV rules for classification – Ships
DNV rules for classification – High speed and light craft

Application :

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

Temperature	**D**
Humidity	**B**
Vibration	**A**
EMC	**B**
Enclosure	**B (IP44)**

Issued at **Hamburg** on **2022-06-23**
This Certificate is valid until **2027-06-01**.
DNV local station: **Hamburg – CMC North/East**

Approval Engineer: **Holger Jansen**

for **DNV**

Joannis Papanuskas
Head of Section

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
Fire door electric control system designed for sliding door and for hinged door. The door actuator is an electric motor acting on a chain for the sliding door model and a timing belt actuator for the hinged door model.

Application/Limitation
Fire door control system for sliding doors having maximum leaf weight of 526 kg.
Fire door control system for hinged doors having maximum leaf weight of 413 kg.

Type Approval documentation

Tests carried out
Applicable tests according to DNV CG 0339 2021
IMO Res. MSC.307(88)-(2010 FTP Code) (as information on this certificate)

Marking of product
The product to be marked with name of manufacturer and type designation.

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

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE