DNV·GL

Certificate No:
TAA00002XT

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Solenoid Valve

with type designation(s)
6027

Issued to
Bürkert Werke GmbH & Co. KG
Ingelfingen, Germany

is found to comply with
DNV GL 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 GL.

Temperature	**D**
Humidity	**B**
Vibration	**B**
EMC	**n/a**
Enclosure	**B (IP65)**

Issued at **Hamburg** on **2021-01-04**
This Certificate is valid until **2025-12-04**.
DNV GL local station: **Augsburg**

Approval Engineer: **Jens Dietrich**

for **DNV GL**

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 GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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.

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Product description

Direct-acting 2/2way plunger valve

Materials
Body: Brass or stainless steel 1.4404
Coil: Epoxy
Duty cycle: 100% (continuous)
Actuating voltages: 12VDC, 24VDC, 24VAC 50Hz/60Hz, 110/120VAC 50/60Hz, 230VAC 50Hz/60Hz, 240VAC 60Hz, 55-60VAC 50/60Hz.
Degree of protection: IP65 with cable plug

Standard version (medium temperatures depending on seal type):
FKM/FKM: -10 °C…+140 °C
EPDM/EPDM: -30 °C…+120 °C
NBR/NBR: -10 °C…+80 °C
PTFE/FKM: -10 °C…+140 °C
Medium pressure ranges: 0…0.2bar up to 0…30bar.

Approval DIN EN 161 (PO19) NBR/NBR: 0 °C…+80 °C
FKM/FKM: 0 °C…+80 °C
Port connection: G ¼, G ⅜, G ½, G⅜, G ⅛ (optional NPT and RC optional)
Medium pressure ranges: 0…0.2bar up to 0…30bar.

Oil burner version PF15 PTFE/FKN: 0°C…160°C
Actuating voltage 110-120V, 50Hz or 220-240V, 50Hz
Port connection: G ¼, G ⅜, G ½, G⅜, G ⅛
Medium pressure range: 0…30bar.

Application/Limitation

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case.

The suitability with regard to materials for use in the respective application system has to be evaluated based on the requirements for Piping Systems DNV GL Pt.4, Ch.6.

Cable connectors used for marine application shall have flame retardant properties in accordance with UL94 5VA, 5VB, V0 or V1. Alternatively glow wire test @960°C according to IEC 60695-2-11 may be accepted for the connectors.

Tests carried out

Applicable tests according to DNV GL CG-0339, December 2019

Marking of product

Maker, type designation, manufacturer ID

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