Certificate no.:
TAP000033K

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Pipeline Components

with type designation(s)
Distribution block GV-L, GV-S,

issued to
PH Industrie-Hydraulik GmbH und Co. KG
Ennepetal, Nordrhein-Westfalen, **Germany**

is found to comply with
DNV rules for classification – Ships Pt.4 Ch.6 Piping systems
DNV-OS-D101 – Marine and machinery systems and equipment, Edition July 2021
DNV class programme DNV-CP-0185 – Type approval – Mechanical joints

Application:

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

Issued at **Hamburg** on **2025-10-29**
This Certificate is valid until **2030-10-28**.
DNV local unit: **Essen**

for **DNV**

Approval Engineer: **Christian Kaemmer**

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 USD 300 000.

Product description

PH-Industrie-Hydraulik component of type GV-L or GV-S is a distribution block made of stainless steel (1.4571). Connected to the piping system with 2 couplings of 24° cones as per ISO 8434-1, equipped with

- 1 screw-in connection or
- 2 screw-in connections or
- 4 screw-in connections to the fire extinguishing system.

Series L and S:

Size	Series L	Series S
16		420
20		420
22	250	
28	250	
30		420
35	250	
38		420
42	250	

Application/Limitation

The PH Industrie-Hydraulik distribution block GV is type approved for application in piping systems of pipe class I, II and III for a fixed pressure water-spraying and water-mist fire-extinguishing system as per FSS Code, Ch.7.

The couplings (connected to the piping system) are classified as “compression couplings, bite type” acc. to DNV-Rules “Ships” Pt. 4, Ch. 6, Sec. 9 Table 8, 9, 10 and are covered by Type Approval Certificate TAP00000Z3. The couplings with metallic sealing are classified as fire-resistant and type-approved for classification of pipe system dry, wet, and dry/wet acc. to DNV-Rules “Ships” Pt. 4, Ch. 6, Sec. 9 Table 9.

Selection of materials / Sea water application

The term sea water application includes sea water piping systems and installation of piping systems on open deck. Stainless steel materials 1.4571 (AISI 316Ti) are approved for sea water systems with operation mode “flowing seawater” but not for application in piping systems with operation mode “stagnant seawater”.
Reference is made to DNV RU-SHIP Pt.4 Ch.6 – Section 2 – Materials.

Type Approval documentation

Tests carried out

Marking of product

For traceability of this type approval, each distribution block is to be marked with:

Marking scope	Example
Manufacturer sign	PH71 - 564427

Periodical assessment

Periodical assessment For retention of the Type Approval, a DNV Surveyor shall perform periodical assessment to verify that the conditions for the Type Approval are complied with. Refer to the Class Programme DNV - CP-0338, Section 4. In addition, burst pressure testing on selected sizes to be carried out in the course of renewal of the certificate. To check the validity of this certificate, please look it up in https://approvalfinder.dnv.com