DNV·GL

Certificate No:
TAP00000EF

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Mechanically Operated Control Valve

with type designation(s)
Hydrocontrol VTR, Hydrocontrol ATR, Hydrocontrol VFR, Hydrocontrol VFC

Issued to
Oventrop GmbH & Co. KG
Olsberg Nordrhein-Westfalen, Germany

is found to comply with
DNV GL rules for classification – Ships Pt.4 Ch.6 Piping systems
DNV GL class programme DNVGL-CP-0186 – Type approval – Valves
DNV GL rules for classification – Ships

Application :

The valves may be used in the following systems as regulation valves: Potable Water (only Hydrocontrol R, DN15-32) Heating and Chilled Water

Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.

Type:	Temperature range:	Max. working press.:	Sizes:
Hydrocontrol VTR	**0°C to 150°C**	**16 bar / 25 bar (see cert.)**	**DN10 - 50 mm**
Hydrocontrol ATR	**0°C to 150°C**	**16 bar / 25 bar (see cert.)**	**DN10 - 50 mm**
Hydrocontrol VFR	**0°C to 150°C**	**16 bar**	**DN50 and 200 mm**
Hydrocontrol VFC	**0°C to 150°C**	**16 bar**	**DN20 - 50 mm**

This Certificate is valid until **2021-07-04**.

Issued at **Hamburg** on **2016-07-08**

for **DNV GL**

DNV GL local station: **Essen CMC Western Germany**

Approval Engineer: **Guido Friederich**

Olaf Drews
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.

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Product description

Double regulating and commissioning valves.
Valve body materials and end connections:

Type	End connection	Body material
Hydrocontrol VTR	Male and female threads	Bronze, B-Norm 567 (acc DIN EN 1982 with restrictions acc. DIN 50930-6)
Hydrocontrol ATR	Male and female threads	
Hydrocontrol VFR	Flanged	
Hydrocontrol VFC	Flanged, PN16	Cast Iron, EN-GJL-250 acc. DIN EN 1561

Application/Limitation

Each valve assembly shall be subjected to a hydrostatic pressure test at minimum 1.5 times the design pressure.

Holding time: 2 min. for sizes up to 100 mm/4"
5 min. for sizes 125 - 250 mm/5" -10",
Acceptance criterion: No leakage.

The valve assembly shall be subjected to a hydrostatic seat leakage test. The test pressure shall be at least equal to the design pressure. The test shall be performed after closing the valve with normal closing torque without application of external forces.

Holding time: 5 min. for all sizes.
Acceptance criterion: Drop tight

Each product/delivery is to be accompanied by the following documents:
- For valves delivered under this type approval, DNV product certificates are required for valves with DN > 100 mm and PN > 16 bar. For other valves manufacturer's certificate may be accepted.
- Test reports for material used in valve bodies

Type Approval documentation

- Manufacturer's Re-Certification Audit Report, Report No.: AZ: 000211, issued 08/2015
- Manufacturers catalogue: "Technical Information Hydrocontrol R" and "Technical Information Hydrocontrol F and FR"
- Drawings: 1060100, 1060103, 106000311r, 1006010321, 1006010324, 1060104, 106000411r, 106010421, 1060106, 106000611r, 106010621, 1060108, 106000811r, 106010821, 106010824r, 106010824, 1060110, 106001011r, 106011021, 106011024r, 106011024, 1060112, 106001211r, 106011221, 106011224R, 106011224, 1060116, 106001611R, 106011611, 106011624R, 106011624, 1060203, 1060204, 1060206, 1060208, 1060210, 1060212, 1060216, 1060303, 1060304, 1060306, 1060308, 1060310, 1060312, 1060316, 1060503, 106050311R, 106050321, 1060504, 106050411R, 106050421, 1060506, 106050611R, 106050621, 1060508, 106050811R, 106050821, 1060510, 106051011R, 106051021, 1060512, 106051211R, 106051221, 1060516, 106051611R, 106051611, 1060803, 1060804, 1060806, 1060808, 1060810, 1060812, 1060816, 1061004, 165900411, 1061006, 165900611, 1061008, 165900811, 1061010, 165901011, 1061012, 165901211, 1061016, 165901611, 1062556+, 1062356, 106235611R, 106235611, 10623563, 106235612R, 106235612, 1062646, 106254631R, 106254631, 1062647, 106254731R, 106254731, 1062648, 106254831R, 106254831, 1062649, 106254931R, 106254931, 106264925, 1062650, 106255031R, 106255031, 1062946, 165924631, 1062947, 165924731, 1062948, 165924831, 1062949, 165924931, 1062950, 165925031, 1688204, 1688206, 1688208, 1688210, 1688212, 1688272, 1688273, 1688274, 1688275, 1688276, 1688304, 1688306, 1688308, 1688310, 1688312, 1688372, 1688373, 1688374, 1688375, 1688376, 1688450, 1688470

Tests carried out

Burst test of valve body.

Marking of product

For traceability to this Type Approval the valves are to be marked with:
- Manufacturers name or trademark
- Type designation
- Size
- Maximum design pressure

Periodical assessment

A condition for retention of the Type Approval Certificate in its validity period is that periodical assessments are successfully carried out. Periodical assessments will be carried out bi-yearly.

The objective of the periodical assessment is to verify that the conditions for the type approval have not been altered. The main scope of the periodical assessment will normally include:

- Verification of the TA applicant's production and quality system w.r.t ensuring continued consistent production of the type approved products at the TA applicant's own premises and at other companies that are given the responsibility for manufacturing of the products.
- Review of the TA documentation and that this is still used as a basis for the production
- Review of possible changes to the design, the material and the performance of the product verification of the product marking.