



CERTIFICATE NUMBER	19-1940698-1-PDA
EFFECTIVE DATE	29-Sep-2020
EXPIRY DATE	12-Jan-2025
ABS TECHNICAL OFFICE	Houston ESD - Piping

CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

OCV CONTROL VALVES, LLC.

located at

7400 EAST 42ND PLACE, TULSA, OK, United States, 74145

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product Valve, Control


Model Series 65, 66 & 74
Series 100 Model 68

This Product Design Assessment (PDA) Certificate remains valid until 12/Jan/2025 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping


Yongjin Lee, Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

OCV CONTROL VALVES

7400 EAST 42ND PLACE

TULSA OK

United States 74145

Telephone: 918-627-1942

Fax: 918-622-8916

Email: jkmetz@controlvalves.com

Web: www.controlvalves.com

Tier: 3 - Type Approved, unit certification not required

Product: Valve, Control

Model: Series 65, 66 & 74

Series 100 Model 68

Intended Service:

Series 65 / 74 - Fire Protection Systems in Marine, Offshore, (Freshwater or Seawater): Pressure Reducing, Fire Pump Pressure Relief, Fire Pump Suction Control, Deluge and Pre Action for Foam/Water Type Sprinkler Feed systems.

Series 65 / 66 - Other ABS Systems: Fueling Systems, Fuel Storage, Ballasting systems, Cooling Water Systems, Bilge Pumps.

Series 100 Model 68 - Fire protection system, deluge foam and/or water system, pressure control deluge system

Description:

Series 65, 66 & 74:

Temperatures Ranges are from -20 °F to 230 °F (-28.9 °C to 110 °C) (Elastomers determine this temperature allowance).

Pressure Ratings range from 0 to 750 psi (0 to 51.7 bars) depending on the materials and end connections be utilized.

Series 100 Model 68:

Maximum Working Pressure: 362 PSI (25 bar)

Maximum Temperature: 120 °F (50 °C)

Valve Series Functions:

The OCV Series 65 is a hydraulically operated globe or angle valve actuated via an internal spool assembly and nylon reinforced diaphragm. The valve functions on a simple principle of pressure differential and uses this DP to control the valve position. The valve can be used to perform a simple on-off function, or with the proper pilot system, a pressure/flow/level modulating function. This valve is UL listed 3" - 10" and approved for use in fire mains.

- Series 65: 1.25", 1.5", 2", 2.5" 3", 4", 6", 8", 10", 12" (DN32 - DN300)

The OCV Series 66 is primarily used in ON/OFF applications with low differential pressure or dirty fluid. The body configuration is the same as the Series 65. This valve can use an external pressure supply to actuate the line size valve opened or closed.

- Series 66: 1.25", 1.5", 2", 2.5" 3", 4", 6", 8", 10", 12" (DN32 - DN300)

The OCV Series 74FC is a hydraulically-operated, diaphragm-actuated valve and is intended primarily for use in deluge on/off fire protection systems. It is available in the globe configuration and is UL Listed 3" - 10".

- Series 74: 3", 4", 6", 8", 10" (DN80 - DN250)

The DOROT Series 100 Model 68 deluge valves are with hydraulic, electric, pneumatic or manual operation or combinations thereof as per attachment.

Manual and automatic reset. Valve body available in ductile iron, stainless steel, NiAl Bronze, Cast steel. Diaphragm in NR, NBR, EPDM, Neoprene

- Series 100 Model 68: 2", 3", 4", 6"

All valve materials and coatings are properly selected for intended services.

Rating:

See attachment for pressures, temperatures, and materials.

Service Restriction:

1. Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

2. All valves are intended for use in incompressible fluids.

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3. Fittings for use on grooved ended valves are to be ABS approved as per Marine Vessel Rules 4-6-2/5.9.
4. Valves with the taper-threaded joints for class I and II piping system are subject to the size and pressure limitation in in Marine Vessel Rules 4-6-2/5.5.5(a).
5. Classes I and II piping systems having nominal diameters exceeding 50 mm (2 in.) are to have flanged ends as per Marine Vessel Rules 4-6-2/5.11.3 and Mobile Offshore Units Rules 4-2-2/9.3.
6. Materials readily rendered ineffective by heat are not to be used for fire mains and hydrants unless adequately protected as per Marine Vessel Rules 4-7-3/1.11.1.
7. Valves sizes 1.25" to 10" with Buna Elastomer are accepted as passing a recognized fire test and are not considered readily rendered ineffective by heat.
8. For Fuel and Lube Oil: Cast iron valves are not permitted. These valves cannot be used as the valve on the fuel tank or the shell. Valves are to be of steel or other approved material.
9. For Mobile Offshore Units: All valves are to be subjected by the manufacturer to a hydrostatic test at a pressure equal to that stipulated by the American National Standards Institute or other recognized standard. They are to bear the trademark of the manufacturer legibly stamped or cast on the exterior of the valve and also the primary pressure rating at which the manufacturer guarantees the valve to meet the requirements of the standards.
10. For Water Spray Systems for Process Equipment: The valves are to be capable of being actuated both automatically by a fire detection system and manually as per 3-8/5.1.4(a)iii of the Facilities On Offshore Installations Rules.
11. For fluid temperatures above 100 °F (38 °C), consult the factory for maximum allowable pressure.

Comments:

The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
Logo of OCV Control Valves LLC is to be indicated in Dorot Series 100 Model 68.

Notes/Drawing/Documentation:

Fire test by QAI LABRATORIES, Report No. TJ2074-1 by, 1.25" 65FC Nickel Aluminum Bronze Body/Bonnet Assembly - Buna Elastomers dated 25 July 2014;
Fire test by QAI LABRATORIES, Report No. TJ2074-2 by, 6" 65FC Nickel Aluminum Bronze Body/Bonnet Assembly - Buna Elastomers dated 25 July 2014;
Fire test by QAI LABRATORIES, Report No. TJ2074-3 by, 10" 65FC Nickel Aluminum Bronze Body/Bonnet Assembly - Buna Elastomers dated 25 July 2014;
UL Report Project No. 13CA25085;
UL Certificate No. EX5114 updated on 2019-06-13;
65 Series Assembly Dwgs:
Dwg No. 2900, 1-1/4"-1-1/2" Basic Valve, Rev -;
Dwg No. 2800, 2-1/2" Valve Assembly, Rev A;
Dwg No. 2642, 2" Basic Valve, Rev -;
Dwg No. 3100, 3" Basic Valve Assembly, Rev -;
Dwg No. 4400, 4" Basic Valve Assembly, Rev -;
Dwg No. 6190, 6" Basic Valve, Rev B;
Dwg No. 3200, 8" Basic Valve, Rev A;
Dwg No. 3800, 10" Basic Valve, Rev -;
Dwg No. 1550, 12" Basic Valve, Rev -;
66 Series Assembly Dwgs:
Dwg No. 2645, 2" Power Actuated Valve Assembly, Rev -;
Dwg No. 2850, 2-1/2" Power Actuated Valve Assembly, Rev -;
Dwg No. 3150, 3" 3100 Power Actuated Valve Assembly, Rev -;
Dwg No. 4450, 4" 4400 Power Actuated Valve Assembly, Rev -;
Dwg No. 6195, 6" Power Actuated Valve, Rev A;
Dwg No. 269007, 8" Power Actuated Valve Assembly, Rev -;
Dwg No. 3800, 10" Power Actuated Valve Assembly, Rev -;
Dwg No. 1575, 12" Power Actuated Valve Assembly, Rev -;
74 Series Assembly Dwgs:

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Dwg No. 7403, BV 3" 74 Series, Rev -;
Dwg No. 7404, BV 4" 74 Series, Rev -;
Dwg No. 7406, BV 6" 74 Series, Rev -;
Dwg No. 7408, BV 8" 74 Series, Rev B;
Dwg No. 7410, BV 10" 74 Series, Rev -;
Dwg No. PELEG 2 inch, Designation 2" PELEG Model DE, Revision: C,
Dwg No. PELEG 3 inch, Designation 3" PELEG Model DE, Revision: D,
Dwg No. PELEG 4 inch, Designation 4" PELEG Model DE, Revision: D,
Dwg No. PELEG 6 inch, Designation 6" PELEG Undrilled Model DE, Revision: -
Dwg No. 68-x-DE-EL-HRV 80664762, 68-x-DE-EL-HRV 80664762, Revision: 0,
Dwg No. 68-x-DE-EL-PROV 80666462, 68-x-DE-EL-PROV 80666462, Revision: 0,
Dwg No. 68-x-DE-EL 80664073, 68-x-DE-EL 80664073, Revision: 0,
Dwg No. 68-x-DE-HRV 80666461, 68-x-DE-HRV 80666461, Revision: 0,
Dwg No. 68-x-DE-PROV 80667776, 68-x-DE-PROV 80667776, Revision: 0,
Dwg No. 68-x-DE-RCE 80667577, 68-x-DE-RCE 80667577, Revision: 0,

Terms of Validity:

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STANDARDS

ABS Rules:

Rules for Conditions of Classification, Part 1 - 2020 Rules for Building and Classing Marine Vessels 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:
2020 Marine Vessels Rules: 4-6-2/5.11, 4-6-2/5.15;

Rules for Conditions of Classification, Part 1 - 2020 Rules for Building and Classing Mobile Offshore Units 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:
2020 Mobile Offshore Units Rules: 4-2-2/9;
2020 Rules for Building and Classing Facilities on Offshore Installations: 3-8/5.1.4(a) iii)

National:

ASTM B16.34:2017 Valves-Flanged, Threaded, and Welding End (CS, SS, Monel, Hastelloy);
UL 260:2004 Standard for Dry Pipe and Deluge Valves for Fire-Protection Service (65 and 74 series);

International:

ISO 19921:2005 Ships and marine technology — Fire resistance of metallic pipe components with resilient and elastomeric seals -Test Methods for Models 65, 66 & 74 Series
ISO 6182-5:2006 (6.9 Fire Exposure Test) Fire Protection- Automatic Sprinkler Systems- Part 5: Requirement and Test Methods for Deluge Valves -Test Method for Series 100 Model 68

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Government:

NA

EUMED:

NA

OTHERS:

NA