



Marine & Offshore

Certificate number: 04592/F0 BV
File number: ACM 145/0113/001, 002
Product code: 2232I

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

ZETKAMA Sp. z o.o.
SCINAWKA SREDNIA - POLAND

for the type of product

PRESSURE RELIEF VALVES, SPRING LOADED
Safety Valves models 240, 630, 781, 775

Requirements:

- BUREAU VERITAS Rules for the Classification of Steel Ships

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 30 Jan 2023

For Bureau Veritas Marine & Offshore,
At BV KATOWICE, on 30 Jan 2018,
Wojciech Lubojanski



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

The electronic version is available at: <http://www.veristarm.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=vy3rssyzba>
BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION

Safety Valves models 630, 240, 775 & 781

1.1 Dimensions according to manufacturer's technical data sheets:

Model	630	240	781	775
Sizes (inlet x outlet) DN	20 x 32 to 400 x 500	15 x 15 to 200 x 200	10 x 15 to 25 x 25	20 x 32 / 25 x 40 / 32 x 50
Orifice areas (mm ²)	201 to 61575	113 to 9503	78.5 to 314	201 to 491
Opening pressure* (barg)	Min 0.25 / Max 95	Min 0.2 / Max 40	Min 0.3 / Max 16	Min 1.5 / Max 16
Temperature range* (°C)	-55 / +400	-55 / +400	-10 / +200	-10 / +200
Inlet/outlet flanges	ISO PN 10 to PN 100 ANSI #150 to #600	ISO PN 10 to PN 40 ANSI #150 to #300	3/8" x 1/2" to 1" x 1"	3/4" x 1 1/4"; 1" x 1 1/2"; 1 1/4" x 2"
Coefficient of discharge	Gas: max 0.78 Liquid: max. 0.5	Gas: max. 0.25 Liquid: max. 0.006	Gas: max 0.25 Liquid: 0.23	Gas: 0.78 Liquid: 0.27

* Depending on material used

1.2 Material specification

Body, Bonnet, Cap	Cast iron EN GJL 250 PN EN 1561 / Nodular cast iron EN-GJS-400-18 PN EN 1653 / Nodular cast iron EN-GJS-400-15 PN EN 1653 / Cast steel GP240GH / Stainless Steel GX5CrNi19-10 / CuZn39Pb1AlC PN EN 1982
Stem	Stainless steel X17CrNi 16-2 / X6CrNiTi18-10
Disc	Stainless steel X39CrMo 17-1 / X6CrNiTi18-10 / X6CrNiTi18-10/EPDM / X6CrNiTi18-10/NBR
Seat/Nozzle	Stainless steel X39CrMo 17-1 / X6CrNiTi18-10 / 13CrMo4-5 / C22 / P355N
Spring	Spring steel SL, SM, SH - EN 10270-1 / 51CrV4 - EN 10089 / X10CrNi18-8 EN 10270-3

When other choices of materials are used per manufacturer's instructions, the BV agreement will be obtained.

2. DOCUMENTS AND DRAWINGS

2.1 Model 240:

- Drawing N° 3-01-02352-00 Rev.0 dated 31/03/2017 for model 240C E
- Drawing N° 3-01-02295-00 Rev.0 dated 21/03/2017 for model 240A C
- Drawing N° 3-01-02297-00 Rev.0 dated 31/03/2017 for model 240F(R) E
- EU-Type examination certificate N° 53357/JN/004/05/04 issued on 01/07/2016

2.2 Model 630:

- Drawing N° 3-01-02351-00 Rev.0 dated 10/04/2017 for model 630A C
- Drawing N° 3-01-02282-00 Rev.0 dated 21/03/2017 for model 630A C
- Drawing N° 3-01-02294-00 Rev.0 dated 21/03/2017 for model 630F(R) E
- Drawing N° 3-01-02350-00 Rev.0 dated 07/04/2017 for model 630F E
- Drawing N° 3-01-02283-00 Rev.0 dated 21/03/2017 for model 630C E
- Drawing N° 3-01-02284-00 Rev.0 dated 21/03/2017 for model 630F F & 630F G
- EU-Type examination certificate N° 53357/JN/004/05/02 issued on 01/07/2016

2.3 Model 775:

- Drawing N° 3-01-02296-00 Rev.0 dated 31/03/2017 for model 775B C
- EU-Type examination certificate N° 53357/JN/004/05/09 issued on 01/07/2016

2.4 Model 781:

- Drawing N° 3-01-00462-00 Rev.1 dated 24/01/2017 for model 781
- EU-Type examination certificate N° 53357/JN/004/05/07 issued on 01/07/2016

No departure from the above documents shall be made without the prior consent of the Society. The manufacturer must inform the Society of any modification or changes to these documents and drawings.

3. TEST REPORTS

Not required.

4. APPLICATION / LIMITATION

- 4.1 May be used as a safety relief valve for steam, gases, liquids.
- 4.2 The safety relief valves are not to be used for cargo tanks and piping system on Liquefied Gas Carriers.
- 4.3 The required valve capacity, valve setting, valve fittings in compliance with the Bureau Veritas rules are to be submitted to Bureau Veritas for review for each application.
- 4.4 Grey cast iron is not to be used for safety valves which are subject to dynamic loads.
- 4.5 The use of stainless steel and grey cast iron is restricted as per Bureau Veritas rules.
- 4.6 Not acceptable for low temperature brine systems.
- 4.7 The manufacturer's instruction manual and the setting pressure report should be kept on board.
- 4.8 The setting of each safety valve is to be in accordance with the Bureau Veritas rules.

5. PRODUCTION SURVEY REQUIREMENTS

- 5.1 The products are to be supplied by **ZETKAMA Sp. z o.o.** in compliance with the type and the requirements described in this certificate.
- 5.2 This type of product is within the category IBV of Bureau Veritas Rule Note NR320.
- 5.3 BV product certificate is required.
- 5.4 Bureau Veritas Certificates are required for materials of valve housings of Class I (DN \geq 50) and Class II (DN \geq 100). Materials of valve housings of Class I (DN $<$ 50) and Class II (DN $<$ 100) and for other parts of Class I and Class II are to be with Work's certificates.
- 5.5 Each safety valve is to be hydraulically pressure tested to 1.5 times the design pressure.

For information, **ZETKAMA Sp. z o.o.** has declared to Bureau Veritas the following production site:

- **ZETKAMA Sp. z o.o.**: ul Swobodna 9, 41-200 Sosnowiec, POLAND

6. MARKING OF PRODUCT

Each safety valve shall be marked with at least:

- Manufacturer's name or logo
- Type designation
- Setting pressure
- Society's brand as relevant

7. OTHERS

It is **Zetkama Sp. z o.o.**'s responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

This certificate supersedes the Type Approval Certificates N° 04592/E0 BV, 04594/E0 BV & 04593/E0 BV issued by the Society.

*** END OF CERTIFICATE ***



Marine & Offshore

Certificate number: 06178/E0 BV

File number: ACM 141/0109/001

Product code: 3715H

*This certificate is not valid when presented without the
full attached schedule composed of 7 sections*

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

Zetkama Sp. z o.o.
SOSNOWIEC - POLAND

for the type of product

GAUGE GLASSES, SIGHT GLASS LEVEL INDICATORS
Water gauge glasses type 716

Requirements:

- BUREAU VERITAS Rules for the Classification of Steel Ships

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 19 Jul 2022

For Bureau Veritas Marine & Offshore,
At BV KATOWICE, on 19 Jul 2017,
Wojciech Lubojanski



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION

Water gauge glasses type 716

Flat glass gauges fitted with isolating valves at the upper and lower ends. Drain connection is also fitted.

1.1 Rating:

Type	Max. working pressure	Max. working temperature	Drawing
716	2.5 MPa	150°C	3-03-00435-00
716	6.3 MPa	300 °C	3-03-02382-00

Max. working pressure and temperature depending on materials used.

1.3 Other materials and/or components :

Body:	S235JR / S275JR / 13CrMo4-5 / X6CrNiTi18-10 acc to EN-10088-1
Glass Box:	S235JR / S275JR / X6CrNiTi18-10 acc to EN-10088-1
Frame:	S235JR / S275JR / X6CrNiTi18-10 acc to EN-10088-1

When other choices of materials are used per manufacturer's recommendations, the BV agreement is to be obtained.

2. DOCUMENTS AND DRAWINGS

- Drawing N° 3-03-00435-00 dated 04/2004 for Type 716 (old version)
- Drawing N° 3-03-02382-00 dated 05/2017 for Type 716 (new version)

No departure from the above documents shall be made without the prior consent of the Society. The manufacturer must inform the Society of any modification or changes to these documents and drawings.

3. TEST REPORTS

Not applicable.

4. APPLICATION / LIMITATION

- 4.1 This type of water gauges may be used as fittings on boilers and pressure vessels.
- 4.2 The gauges are not admitted for oil fuel and other flammable oils on board passenger ships having to comply with SOLAS Convention, as amended.
- 4.3 The fitting of these glass indicators is to be in accordance with the Manufacturer's instructions as well as the Rules and Regulations applicable to the ship.
- 4.4 Each device is to be supplied with its manuals for installation, use and maintenance.

5. PRODUCTION SURVEY REQUIREMENTS

- 5.1 The products are to be supplied by **Zetkama Sp. z o.o.** in compliance with the type described in this certificate.
- 5.2 This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.
- 5.3 **Zetkama Sp. z o.o.** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

For information, **Zetkama Sp. z o.o.** has declared to Bureau Veritas the following production site:

Zetkama Sp. z o.o.: uL Swobodna 9, 1-200 SOSNOWIEC, POLAND

6. MARKING OF PRODUCT

Each level gauge shall be marked with:

- Manufacturer's name
- Maximum liquid temperature
- Maximum pressure

7. OTHERS

It is **Zetkama Sp. z o.o.**'s responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

This Certificate supersedes the Type Approval Certificate N° 06178/D0 BV issued by the Society.

***** END OF CERTIFICATE *****

