[1] # EU-TYPE EXAMINATION CERTIFICATE

[2] **Equipment or Protective System intended for use in potentially explosive atmospheres - Directive 2014/34/EU – Annex III – MODULE B: EU-TYPE EXAMINATION**

[3] EU-type Examination Certificate number: **IMQ 13 ATEX 029X**

[4] PRODUCT: Single-hole and multi-hole swivel or stable metal cable glands
TYPE/SERIES: SV..H……; ST..H……

[5] MANUFACTURER: Bimed Teknik Aletler San. Ve Tic. A.Ş.

[6] ADDRESS: S.S Bakır ve Pirinç Sanayi Sitesi Leylak Caddesi No:16 TR-34524 Beylikdüzü - Istanbul - Turkey

[7] This equipment and any acceptable variation thereto are specified in the annex to this certificate and the documents therein referred to.

[8] IMQ, notified body N° 0051, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in Report No.: **AT22-0077262-01_A**

[9] Compliance with Essential Health and Safety Requirements, except in respect of those listed at item 18 of the annex, has been assured by compliance with:

EN IEC 60079-0:2018: EN 60079-7:2015; EN IEC 60079-7:2015/A1:2018; EN 60079-31:2014

[10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate

[11] This EU-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

[12] The marking of the equipment or protective system shall include the following:

II 2GD **Ex eb IIC Gb**
Ex tb IIIC Db

THIS CERTIFICATE CANCELS AND REPLACES THE PREVIOUS ONE. IT INCLUDES 1 ANNEX.

FIRST ISSUE	2014/03/26
CURRENT ISSUE	2022/05/02
PREVIOUS ISSUE	2016/09/28
EXPIRING DATE	2032/05/01

B.U. PRODUCT CONFORMITY ASSESSMENT
CERTIFICATION SECTOR - MANAGER

[13] # Annex

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[15] **Description of product:**

Swivel glands (SV.H…… and SVP.H……) are cable glands which are used when flexibility is required between the cable and the enclosure. Even though the enclosure remains constant, cable (or conduit) can rotate freely. While forming this mechanism, IP protection level of the system should be considered. In order to ensure the IP protection level, o-ring should be used on the swivel part. Upon customer request, all cable glands can also be provided with flat gasket to maintain IP protection.

Stable glands (ST.H…… and STP.H…...) are the not-swivel versions of SV.H…… and SVP.H…… cable glands.

The sealing rings used in swivel and stable glands can be either single-hole seals for single cable applications or they can be multi-hole seals for independent cable entries. The number of these holes are based on the number of cables. Seal hole diameters depend on the diameter of the cables.

When all the holes are not used, empty holes are closed with pins (as in SVP.H…… and STP.H…...) The material used for pins should be conforming to the working conditions of the gland.
Moreover, swivel glands are category II 2GD, have protection against the combustible dust risk.

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[15.1] **Models/Series Identification:**

Table 3.1: S V . 1 H . . . . . ; S T . 1 H						
Model			Sealing ring		Torque value [Nm]	Suitable for
			Hole dimensions Ø mm	Max number of holes		Ex eb Ex tb
S..1H25	1 M	1 M .	2.5	1	18	yes
S..1H30	1 M	1 M .	3.0	1	16	yes
S..1H25	1 M	2 M .	2.5	1	18	yes
S..1H30	1 M	2 M .	3.0	1	16	yes
S..1H25	1 M	2 N .	2.5	1	18	yes
S..1H30	1 M	2 N .	3.0	1	16	yes
S..1H25	2 M	1 M .	2.5	1	18	yes
S..1H30	2 M	1 M .	3.0	1	16	yes
S..1H36	2 M	1 M .	3.6	1	22	yes
S..1H40	2 M	1 M .	4.0	1	15	yes
S..1H25	2 M	2 M .	2.5	1	18	yes
S..1H30	2 M	2 M .	3.0	1	16	yes
S..1H36	2 M	2 M .	3.6	1	22	yes
S..1H40	2 M	2 M .	4.0	1	15	yes
S..1H25	2 M	2 N .	2.5	1	18	yes
S..1H30	2 M	2 N .	3.0	1	16	yes
S..1H36	2 M	2 N .	3.6	1	22	yes
S..1H40	2 M	2 N .	4.0	1	15	yes
S..1H25	2 N	1 M .	2.5	1	18	yes
S..1H30	2 N	1 M .	3.0	1	16	yes
S..1H36	2 N	1 M .	3.6	1	22	yes
S..1H40	2 N	1 M .	4.0	1	15	yes
S..1H25	2 N	2 M .	2.5	1	18	yes
S..1H30	2 N	2 M .	3.0	1	16	yes
S..1H36	2 N	2 M .	3.6	1	22	yes
S..1H40	2 N	2 M .	4.0	1	15	yes
S..1H25	2 N	2 N .	2.5	1	18	yes
S..1H30	2 N	2 N .	3.0	1	16	yes
S..1H36	2 N	2 N .	3.6	1	22	yes
S..1H40	2 N	2 N .	4.0	1	15	yes

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Table 3.2: S V . . H . . . . . .; S T . . H						
Model			Sealing ring		Torque value [Nm]	Suitable for
			Hole dimensions Ø mm	Max number of holes		Ex eb Ex tb
S..7H25	1 M	1 M .	2.5	7	35	yes
S..4H30	1 M	1 M .	3.0	4	34	yes
S..7H25	1 M	2 M .	2.5	7	35	yes
S..4H30	1 M	2 M .	3.0	4	34	yes
S..7H25	1 M	2 N .	2.5	7	35	yes
S..4H30	1 M	2 N .	3.0	4	34	yes
S..7H25	2 M	1 M .	2.5	7	35	yes
S..4H30	2 M	1 M .	3.0	4	34	yes
S..3H36	2 M	1 M .	3.6	3	23	yes
S..7H40	2 M	1 M .	4.0	7	15	yes
S..7H25	2 M	2 M .	2.5	7	35	yes
S..4H30	2 M	2 M .	3.0	4	34	yes
S..3H36	2 M	2 M .	3.6	3	23	yes
S..7H40	2 M	2 M .	4.0	7	15	yes
S..7H25	2 M	2 N .	2.5	7	35	yes
S..4H30	2 M	2 N .	3.0	4	34	yes
S..3H36	2 M	2 N .	3.6	3	23	yes
S..7H40	2 M	2 N .	4.0	7	15	yes
S..7H25	2 N	1 M .	2.5	7	35	yes
S..4H30	2 N	1 M .	3.0	4	34	yes
S..3H36	2 N	1 M .	3.6	3	23	yes
S..7H40	2 N	1 M .	4.0	7	15	yes
S..7H25	2 N	2 M .	2.5	7	35	yes
S..4H30	2 N	2 M .	3.0	4	34	yes
S..3H36	2 N	2 M .	3.6	3	23	yes
S..7H40	2 N	2 M .	4.0	7	15	yes
S..7H25	2 N	2 N .	2.5	7	35	yes
S..4H30	2 N	2 N .	3.0	4	34	yes
S..3H36	2 N	2 N .	3.6	3	23	yes
S..7H40	2 N	2 N .	4.0	7	15	yes

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SV	(1)	(2)	**H**	(3)	(4)	(5)	(6)	(7)	(8)
ST	(1)	(2)	**H**	(3)	(4)	(5)	(6)	(7)	(8)

SV: swivel type
ST: stable type

(1) "P": with plastic pin
none: without plastic pin

(2) max number of holes (1 to 7)

(3) Hole diameter dimensions

(4) size of male, according to related table

(5): Male thread type:
"N" – NPT ANSI ASME B1.20.1
"M" – Metric ISO pitch 1,5 (ISO 965/1 and ISO 965/3)

(6) size of female, according to related table

(7): Female thread type:
"N" – NPT ANSI ASME B1.20.1
"M" – Metric ISO pitch 1,5 (ISO 965/1 and ISO 965/3)

(8): Body material:
"B" – brass
"X" – stainless steel
"BN" – nickel plated brass
"Z" – galvanized steel

Materials [1]					
Series	Body materials	Sealing rings material	Flat washer materials	O-ring	Accessories
SV..H.....	stainless steel brass nickel plated brass galvanized steel	silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber KLINGERSIL® C-4400, PA washer	neoprene silicone EPDM rubber Viton	serrated washer pin
ST..H.....	stainless steel brass nickel plated brass galvanized steel	silicone	chloroprene (neoprene), silicone, EPDM rubber, fiber KLINGERSIL® C-4400, PA washer	neoprene silicone EPDM rubber Viton	serrated washer pin

[1] Service temperature is related to material of sealing rings which cable glands body is made of, but can be additionally limited by material of flat washer/OR/accessories material temperature limitations: chloroprene (-40÷100 °C); silicone (-60÷180 °C); EPDM rubber (-40÷110 °C); KLINGERSIL® C-4400 fiber (-50÷130 °C); NBR (-40÷100 °C), PA (-60÷65 °C), Viton (-17÷210 °C). The use of these materials has to be taken into account in determination of lower and upper limit of service temperature of cable glands, according to sealing ring service temperature range.

[15.2] **Ratings:**

For minimal and maximal diameters of permitted cables and torque values, see tables in [15.1].

[15.3] **Safety Ratings:**

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[15.4] **Ambient temperature and temperature classes:**

-60°C ÷ +80°C (silicone sealing ring)

[15.5] **Degree of protection (IP code):**

IP66/68 (IPX8: 30 min, 0,5 bar)

[15.6] **Warnings:**

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[16] **Report:** AT22-0077262-01_A

[16.1] **Routine (factory) tests:**
The manufacturer shall carry out the routine test prescribed at clauses 27 of the EN 60079-0.

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[16.2] **Conformity with the documentation:**
The manufacturer shall carry out the verifications or tests necessary to ensure that the product complies with the documentation.
Marking the equipment in accordance with Clause 29 of EN 60079-0, the manufacturer attests on his own responsibility that:

- the equipment has been constructed in accordance with the applicable requirements of the relevant standards in safety matters;
- the routine verifications and routine tests in 28.1 of EN 60079-0 have been successfully completed with positive results.

[16.3] **Installation conditions:**
Above referred equipment is foreseen to be installed in locations where there are environmental conditions as clearly specified at clause 1, par. 2 of EN 60079-0.
Installation and use in atmospheric and environmental conditions that are out of above mentioned intervals require special considerations and additional measures.
It is not a requirement of the applicable standards listed in first page that the certification body confirm suitability for these special considerations and additional measures.
Installation of equipment shall be done according to EN 60079-14 Standard requirements.
Not used holes of sealing ring shall be fitted with pins supplied together with the cable gland.
If the cable has a connector at the end, then it is obligatory to use split hole or split multi-hole seals. If the cable has a free end, then it is not obligatory use split-hole seals. In some applications, all the cables or some of the cables can be inserted after the cable gland assembly. In order to achieve this, the seal holes can be split-hole or split multihole. This way, the seal is taken out and the cables are inserted from the sides using the splits on the seal. However during tightening, split surfaces have to be in complete contact in order to provide the IP protection.

[17] **Special Condition of use (X):**
The cable glands are only suitable for fixed installations. Cables shall be effectively clamped to prevent pulling or twisting.
The cable gland installation shall be done according to safety manufacturer instructions to maintain degree of protection.
Unused holes of sealing ring shall be fitted with pins supplied together with the cable gland.

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[18] **Essential Health and safety Requirements:**
This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed in [9].
This Certificate **does not** cover hazards coming from environmental conditions different from those clearly and precisely indicated and covered in clause 1 of EN 60079-0.

ESHR 1.2.7 According Annex VIII of the Directive
ESHR 1.4 Not verified.
ESHR 1.5 Not verified.
ESHR 3 Not applied.

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at [9], the following are considered relevant to this product, and conformity is demonstrated in the report:

N/A

[19] **Descriptive documents:**

DL-AT22-0077262-01_A, Rev.0 dated 2022-04-21

[20] **Certification Validity Conditions:**
The use of this Certificate is subject to the Certification Scheme and to the Regulation applicable to holders of IMQ Certificates.
The validity of this certificate is subject to the condition that the manufacturer complies with the results of the document review and of the pertinent requirement if any included, recorded in the relevant copy of documentation as per 19.
One copy of the mentioned documentation is kept in IMQ file.

[21] **Variations**

Issue 0: March 2014

Issue 1: February 2016
- Change of clamping range for models SV1H... and ST1H...
- Introduction of stable versions models ST..H...
- Standard update to EN 60079-31:2014

Issue 2: September 2016
- Standard update to EN 60079-7:2015
- New models with sealing ring having different diameters and numbers of holes
- Body material added (nickel plated brass; galvanized steel)
- Insert Viton O-ring (COT: -17÷230 °C).

Issue 3: May 2022
- Standards update to EN IEC 60079-0:2018 and EN IEC 60079-7:2015/A1:2018
- Alternative brass material has been added for all product types