

### **IECEx Certificate** of Conformity

Mr. Mauro CASARI

### INTERNATIONAL ELECTROTECHNICAL COMMISSION **IEC Certification System for Explosive Atmospheres**

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx IMQ 14.0002X** Page 1 of 4

Issue 2 (2016-09-08) Issue No: 3 Status: Current Issue 1 (2015-09-11) Issue 0 (2014-05-06)

2022-05-03 Date of Issue:

Applicant: Bimed Teknik Aletler San ve Tic. A.S.

S.S Bakır ve Pirinç Sanayi Sitesi Leylak Caddesi No:15 Beylikdüzü - Istanbul

Equipment: Single-hole and multi-hole swivel or stable metal cable glands - Series SV..H.... and ST..H....

Optional accessory:

Type of Protection: Ex eb; Ex tb

Marking: Ex eb IIC Gb

Ex tb III C Db

Approved for issue on behalf of the IECEx

Certification Body:

Position: **IMQ ExCB Manager** 

Signature:

(for printed version)

(for printed version)

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Certificate history:

Certificate issued by:

Istituto Italiano del Marchio di Qualità S.p.A Via Quintiliano 43 20138 Milano Italy





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Date of issue: 2022-05-03 Issue No: 3

Manufacturer: Bimed Teknik Aletler San ve Tic. A.S.

S.S Bakır ve Pirinç Sanayi Sitesi Leylak Caddesi No:15 Beylikdüzü - Istanbul

Türkiye

Manufacturing locations:

Bimed Teknik Aletler San ve Tic.

A.S.

S.S Bakır ve Pirinç Sanayi Sitesi Leylak Caddesi No:15 Beylikdüzü -

İstanbul Türkiye

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

#### STANDARDS:

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements

Edition:7.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

Edition:2

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

Edition:5.1

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

#### **TEST & ASSESSMENT REPORTS:**

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

IT/IMQ/ExTR14.0002/03

**Quality Assessment Report:** 

IT/CES/QAR12.0003/08



## IECEx Certificate of Conformity

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#### **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

Swivel glands SV..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.

Stable glands ST..H... are the not-swivel versions of SV..H... cable glands.

The sealing rings used in swivel/stable glands can be either single-hole seal (SV1H...; ST1H...) for single cable applications or they can be multi-hole seals (SVP.H...; STP.H...) for independent cable entries. The number of used holes (version with one hole: SV1H... and ST1H...; version with 2 to 7 holes: SVP.H... and STP.H...) 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.

The material used for pins is suitable for working conditions of the gland. Cable glands are made of metal body and silicon sealing rings. The temperature range of use is from -60°C to +80°C with silicon sealing ring. Cable glands are suitable for electrical equipment either with type of protection Ex eb or type of protection Ex tb.

Cable glands should be also used for intrinsically safe circuits Ex i. These cable glands shall have a light blue painted part.

Full details in Annex.

#### SPECIFIC CONDITIONS OF USE: YES as shown below:

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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#### **DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**

#### Issue 1

Change of clamping range for models SV1H... and ST1H..., from 1,5 $\pm$ 3,0 mm to 1,0 $\pm$ 3,0 mm Introduction of stable versions models ST..H... Standard update to IEC 60079-31:2013, 2nd edition

#### Issue 2:

Standard update to IEC 60079-7:2015, 5th edition New models with different diameters and numbers of holes Body material added (nickel plated brass; galvanized Steel) Viton O-ring

#### Issue 3:

Standards update to IEC 60079-0:2017 (Ed. 7.0) and IEC 60079-7:2017 (Ed. 5.1) Alternative brass material has been added for all product types

#### Annex:

IECEx IMQ 14.0002 X issue No. 3 Annex.pdf

Annex to: IECEx IMQ 14.0002X issue No. 3

Applicant: Bimed Teknik Aletler San. Ve Tic. A.Ş.

Apparatus: Single-hole and multi-hole swivel or stable metal cable glands

SV..H...; ST..H....



#### **General description**

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.

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

#### **Design options**

Table 3.1: S V . 1 H ; S T . 1 H										
			Sealin		Suitable for					
	Model		Hole Max number of Momm holes		Torque value [Nm]	Ex eb Ex tb				
S1H25	1 M	1 M .	2.5	1	18	yes				
S1H30	1 M	1 M .	3.0	1	16	yes				
S1H25	1 M	2 M .	2.5	1	18	yes				
S1H30	1 M	2 M .	3.0	1	16	yes				
S1H25	1 M	2 N .	2.5	1	18	yes				
S1H30	1 M	2 N .	3.0	1	16	yes				
S1H25	2 M	1 M .	2.5	1	18	yes				
S1H30	2 M	1 M .	3.0	1	16	yes				
S1H36	2 M	1 M .	3.6	1	22	yes				
S1H40	2 M	1 M .	4.0	1	15	yes				
S1H25	2 M	2 M .	2.5	1	18	yes				
S1H30	2 M	2 M .	3.0	1	16	yes				
S1H36	2 M	2 M .	3.6	1	22	yes				
S1H40	2 M	2 M .	4.0	1	15	yes				
S1H25	2 M	2 N .	2.5	1	18	yes				
S1H30	2 M	2 N .	3.0	1	16	yes				
S1H36	2 M	2 N .	3.6	1	22	yes				
S1H40	2 M	2 N .	4.0	1	15	yes				
S1H25	2 N	1 M .	2.5	1	18	yes				
S1H30	2 N	1 M .	3.0	1	16	yes				
S1H36	2 N	1 M .	3.6	1	22	yes				
S1H40	2 N	1 M .	4.0	1	15	yes				
S1H25	2 N	2 M .	2.5	1	18	yes				
S1H30	2 N	2 M .	3.0	1	16	yes				
S1H36	2 N	2 M .	3.6	1	22	yes				
S1H40	2 N	2 M .	4.0	1	15	yes				
S1H25	2 N	2 N .	2.5	1	18	yes				
S1H30	2 N	2 N .	3.0	1	16	yes				
S1H36	2 N	2 N .	3.6	1	22	yes				
S1H40	2 N	2 N .	4.0	1	15	yes				

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SV..H...; ST..H....



Table 3.2: S V H ; S T H									
			Sealin	g ring		Suitable for			
	Model		Hole Max dimensions number of Ø mm holes		Torque value [Nm]	Ex eb Ex tb			
S7H25	1 M	1 M .	2.5	7	35	yes			
S4H30	1 M	1 M .	3.0	4	34	yes			
S7H25	1 M	2 M .	2.5	7	35	yes			
S4H30	1 M	2 M .	3.0	4	34	yes			
S7H25	1 M	2 N .	2.5	7	35	yes			
S4H30	1 M	2 N .	3.0	4	34	yes			
S7H25	2 M	1 M .	2.5	7	35	yes			
S4H30	2 M	1 M .	3.0	4	34	yes			
S3H36	2 M	1 M .	3.6	3	23	yes			
S7H40	2 M	1 M .	4.0	7	15	yes			
S7H25	2 M	2 M .	2.5	7	35	yes			
S4H30	2 M	2 M .	3.0	4	34	yes			
S3H36	2 M	2 M .	3.6	3	23	yes			
S7H40	2 M	2 M .	4.0	7	15	yes			
S7H25	2 M	2 N .	2.5	7	35	yes			
S4H30	2 M	2 N .	3.0	4	34	yes			
S3H36	2 M	2 N .	3.6	3	23	yes			
S7H40	2 M	2 N .	4.0	7	15	yes			
S7H25	2 N	1 M .	2.5	7	35	yes			
S4H30	2 N	1 M .	3.0	4	34	yes			
S3H36	2 N	1 M .	3.6	3	23	yes			
S7H40	2 N	1 M .	4.0	7	15	yes			
S7H25	2 N	2 M .	2.5	7	35	yes			
S4H30	2 N	2 M .	3.0	4	34	yes			
S3H36	2 N	2 M .	3.6	3	23	yes			
S7H40	2 N	2 M .	4.0	7	15	yes			
S7H25	2 N	2 N .	2.5	7	35	yes			
S4H30	2 N	2 N .	3.0	4	34	yes			
S3H36	2 N	2 N .	3.6	3	23	yes			
S7H40	2 N	2 N .	4.0	7	15	yes			

### Key code

										SV: swivel type ST: stable type
										(1) "P": with plastic pin none: without plastic pin
										(2) max number of holes (1 to 7)
sv	(4)	(2)		(2)	(4)	(5)	/C\	( <del>7</del> )	(0)	(3) Hole diameter dimensions
5v	(1)	(2)	Н	(3)	(4)	(5)	(6)	(7)	(8)	(4) size of male, according to related table
ST	(1)	(2)	н	(3)	(4)	(5)	(6)	(7)	(8)	(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

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Materials '										
Series	Body materials	Sealing rings material	Flat washer materials	O-ring	Accessories					
SVH	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					
STH	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					

\* 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.

#### **Specific conditions of Use:**

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.

IMQ S.p.A. Via Quintiliano, 43 - I-20138 Milano