



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.:	<b>IECEX IMQ 14.0003X</b>	Page 1 of 4	<u>Certificate history:</u>
Status:	<b>Current</b>	Issue No: 4	Issue 3 (2019-06-03)
Date of Issue:	2020-09-15		Issue 2 (2018-11-19)
Applicant:	<b>Bimed Teknik Aletler San. Ve Tic. A.Ş.</b> S.S Bakır ve Pirinç Sanayi Sitesi Leylak Caddesi No:15 Beylikdüzü Istanbul Turkey		Issue 1 (2016-10-26)
Equipment:	<b>Drain plug and ventilation plug</b>		Issue 0 (2014-05-06)
Optional accessory:	Series: BDRV...; *BBVP...		
Type of Protection:	<b>Ex eb; Ex tb</b>		
Marking:	Ex eb IIC Gb Ex tb III C Db		

Approved for issue on behalf of the IECEx  
Certification Body:

**Mr. Mauro CASARI**

Position:

**IMQ ExCB Manager**

Signature:  
(for printed version)

Date:

**2020-09-15**

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20138 Milano  
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Certificate No.: **IECEX IMQ 14.0003X**

Page 2 of 4

Date of issue: 2020-09-15

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Manufacturer: **Bimed Teknik Aletler San. Ve Tic. A.Ş.**  
S.S Bakır ve Piriñç Sanayi Sitesi Leylak Caddesi No:15 Beylikdüzü  
Istanbul  
**Turkey**

Additional  
manufacturing  
locations:

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 60079-7:2015** Explosive atmospheres – Part 7: Equipment protection by increased safety "e"  
Edition:5.0

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/EXTR14.0003/04](#)

Quality Assessment Report:

[IT/CES/QAR12.0003/07](#)



# IECEx Certificate of Conformity

Certificate No.: **IECEX IMQ 14.0003X**

Page 3 of 4

Date of issue: 2020-09-15

Issue No: 4

## **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

Drain plug BDRV... is a device intended for use to evacuate the water generated because of condensation inside the enclosure. Due to the fact that water is accumulated in bottom part of the enclosure, "drain plug" is assembled in the lowest part of the enclosure.

As a principle, no extra pressure is needed to drain the water out of the enclosure. Water will come out with the presence of drain plug device. Degree of ingress protection of drain plug is IP66. IP66 for drain plugs is guarantee if they are installed according to manufacturer instructions.

To maintain the IP level, drain plug membrane is manufactured from sintered material. For the selection of sintered material, working temperature, chemical resistance, aging conditions and atmospheric structure are taken into consideration.

Regarding the material used for internal membrane: brass is used as raw material only.

Ventilation plug \*BBVP... adjusts the inner pressure of sealed equipment of type of protection "eb" and "tb" to the ambient pressure. It consist of a body with cap of stainless steel and a pressed in membrane. Degree of ingress protection of ventilation plug is detailed in below membrane specification table.

Further details are included in Annex.

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

- The interfaces between the Plug and associated enclosure is made by threaded joint: it is the user's responsibility to ensure that the appropriate ingress protection degree is maintained, carrying out the installation according to safety manufacturer instructions.
- The temperature class will be dependent on the enclosure into which it is installed, taking into account that at their point of mounting.
  - 60 ÷ 85 °C (drain plug)
  - 40 ÷ 100 °C (ventilation plug)
- Plain holes shall be than 0,7mm above the major diameter of the drain plug thread and the device shall be secured with locknut.



# IECEX Certificate of Conformity

Certificate No.: **IECEX IMQ 14.0003X**

Page 4 of 4

Date of issue: 2020-09-15

Issue No: 4

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

### Issue 1:

- The hole on the side of the cap is removed, and moved to the side, and the hole diameter is smaller.
- The name of the product is changed in "drain plug" instead "drain valve".
- Change from "U" to "X"

Issue 2: Ventilation plug type \*BBVP... has been added.

Issue 3: A typing correction has been applied to Ventilation Plug coding system for metric threads (from \*BBVP-X01M to \*BBVP-X01L).

### Issue 4:

- TL option has been added to BDRV and \*BBVP types.
- New material for membrane of \*BBVP type has been added.
- New sizes (M16x1,5, M20x1,5 and PG9) have been added to \*BBVP types.
- Key code for BDRV and \*BBVP types have been changed.

## **Annex:**

[IECEX IMQ 14.0003 X issue No. 4 Annex.pdf](#)

**Annex to:** IECEx IMQ 14.0003X issue No. 4  
**Applicant:** Bimed Teknik Aletler San. Ve Tic. A.Ş.  
**Apparatus:** Drain plug BDRV...  
Ventilation plug \*BBVP...



## General description

Drain plug is a device intended for use to evacuate the water generated because of condensation inside the enclosure. Due to the fact that water is accumulated in bottom part of the enclosure, "drain plug" is assembled in the lowest part of the enclosure.

As a principle, no extra pressure is needed to drain the water out of the enclosure. Water will come out with the presence of drain plug device. Degree of ingress protection of drain plug is IP66. IP66 for drain plugs is guarantee if they are installed according to manufacturer instructions.

To maintain the IP level, drain plug membrane is manufactured from sintered material. For the selection of sintered material, working temperature, chemical resistance, aging conditions and atmospheric structure are taken into consideration.

Regarding the material used for internal membrane: brass is used as raw material only.

Ventilation plug Ex eb adjusts the inner pressure of sealed equipment of type of protection "eb" and "tb" to the ambient pressure. It consist of a body with cap of stainless steel and a pressed in membrane. Degree of ingress protection of ventilation plug is detailed in below membrane specification table.

Membrane Specification				
Membrane Type	S	M	H	UH
Description (µm)	0,45	0,8	3	5
Protection Class	IP66, IP68	IP66, IP68	IP66, IP68	IP64
Water Intrusion Pressure bar	0,9	0,5	0,2	-
Average Air flow rate (lt/h) for Δp=70mB	16	25	120	300

## Design options and Key code

### Drain plug:

#### Materials:

"B" – Brass

"BN" – Nickel plated brass

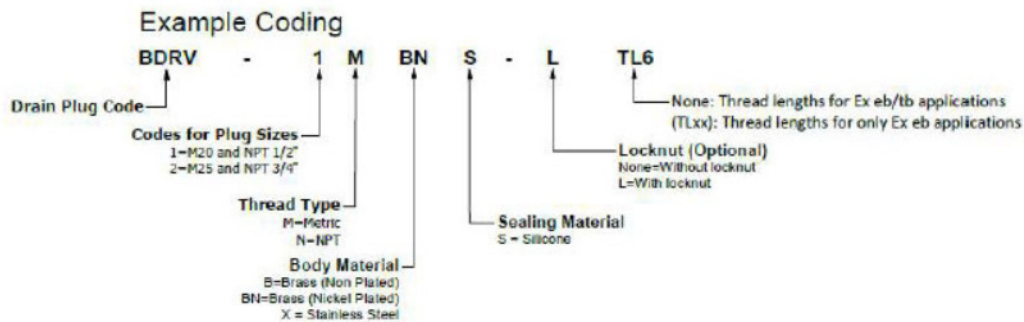
"X" – Stainless steel

#### Threads:

"N" – NPT

"M" – Metric ISO pitch 1,5 (ISO 965/1, ISO 965/2, ISO 965/3)

Annex to: IECEx IMQ 14.0003X issue No. 4  
 Applicant: Bimed Teknik Aletler San. Ve Tic. A.Ş.  
 Apparatus: Drain plug BDRV...  
 Ventilation plug \*BBVP...



Note: (Thread Length) in the key code is mandatory for products having thread length different than the minimum TL for ex eb/tb applications indicated in the assembly tables.

Ventilation plug:

Materials:

- "B" – Brass
- "BN" – Nickel plated brass
- "X" – Stainless steel

Threads:

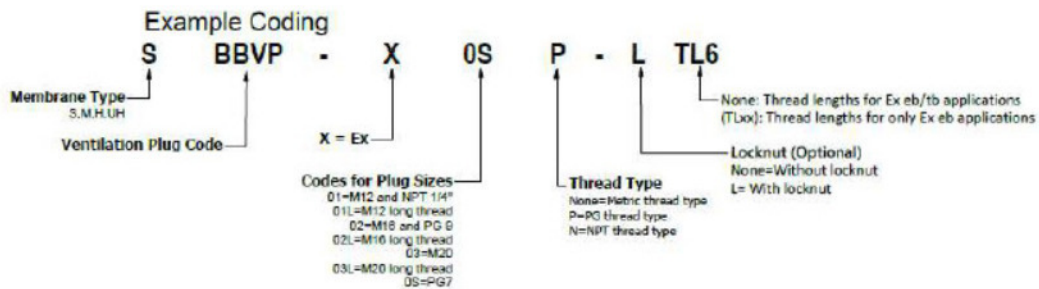
- "N" – NPT
- "M" – Metric ISO pitch 1,5 (ISO 965/1, ISO 965/2, ISO 965/3)

Body, Cap and Ventilation plug ring are made of Stainless type AISI316L (DIN standard no:1.4404, description: X2CrNiMo17-12-2) ; AISI304 (DIN standard no: 1.4301, description:X5CrNi1810); AISI303 (DIN standard no: 1.4305, description: X8CrNi18-9) and other types.

External O-Ring/gasket is made of NBR. It is mandatory for PG threads.

Ventilation Plug sealing is made of PTFE.Membrane is made of Acrylic-Copolymer.

TL dimension in the technical drawings have been calculated as actual thread length plus the thickness of the chamfers and ½ Oring Thickness.



Note: (Thread Length) in the key code is mandatory for products having thread length different than the minimum TL for ex eb/tb applications indicated in the assembly tables.

**Annex to:** IECEx IMQ 14.0003X issue No. 4  
**Applicant:** Bimed Teknik Aletler San. Ve Tic. A.Ş.  
**Apparatus:** Drain plug BDRV...  
Ventilation plug \*BBVP...



### Specific conditions of Use:

- The interfaces between the Plug and associated enclosure is made by threaded joint: it is the user's responsibility to ensure that the appropriate ingress protection degree is maintained, carrying out the installation according to safety manufacturer instructions.
- The temperature class will be dependent on the enclosure into which it is installed, taking into account that at their point of mounting.
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- Plain holes shall be than 0,7mm above the major diameter of the drain plug thread and the device shall be secured with locknut.

### Models sizes

Drain plug:

Type	Model
BDRV ...	BDRV 1 M . (M20)
	BDRV 1 N . (1/2")
	BDRV 2 M . (M25)
	BDRV 2 N . (3/4")

Ventilation plug:

Type	Model
BBVP ...	BBVP-X01L (M12)
	BBVP-X01 (M12)
	BBVP-X02L (M16)
	BBVP-X02 (M16)
	BBVP-X03L (M20)
	BBVP-X03 (M20)
	BBVP-X0SP (PG7)
	BBVP-X02P (PG9)
	BBVP-X01N (1/4")