

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Cable Gland

with type designation(s)

KBA, KBAO, KBAU, KBAT, KBA..LT, KBA..LSK, KBU, MKBU, KBA, KBA..LT, KBA..LSK, MKBU, TAURUS, OCTANS, EB...(axb), DORADO, PHOENIX, VIRGO, KBCTA, KBCTN, *BBVP-X01, KBC, KBCO, KBCU, RKBCU, Metal adaptors and plugs (B-RA, B-RB, B-RM, B-RN, B-TS, MB-TS, NB-TS)

Issued to

BIMED TEKNIK ALETLER SAN. TIC. A.S.
ISTANBUL, Turkey

is found to comply with

DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.

Type	Material	Suitable for open deck	Suitable for Hazardous areas
KBA, KBAO, KBAU, KBAT, KBA..LT, KBA..LSK, KBU, MKBU	Metalic	Yes	Yes
KBA, KBA..LT, KBA..LSK, MKBU	Metalic	Yes	Yes
TAURUS	Metalic	Yes	Yes
OCTANS	Metalic	Yes	Yes
EB...(axb)	Metalic	Yes	Yes
DORADO	Metalic	Yes	Yes
PHOENIX	Metalic	Yes	Yes
VIRGO	Metalic	Yes	Yes
KBCTA, KBCTN	Metalic	Yes	Yes
*BBVP-X01	Metalic	Yes	Yes
KBC, KBCO, KBCU, RKBCU	Metalic	Yes	Yes
Metal adaptors and plugs (B-RA, B-RB, B-RM, B-RN, B-TS, MB-TS, NB-TS)	Metalic	Yes	Yes

Issued at **Høvik** on **2020-06-08**This Certificate is valid until **2024-06-30**.for **DNV GL**DNV GL local station: **Istanbul**Approval Engineer: **Nicolay Horn**

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Marta Alonso Pontes
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Product description

Type	KBA, KBAO, KBAU, KBAT, KBA..LT, KBA..LSK, KBU, MKBU
Design specification/ Compliance code	IEC 60079-0:2011, IEC 60079-1:2014, IEC 60079-31:2013, IEC 60079-7:2015, IEC 62444 :2010
Classification Hazardous area	Ex db IIC Gb and Ex eb IIC Gb ; Ex tb IIIC Db
Certification	IECEX CES 13.0013X ; CESI 13 ATEX 033X
Continuous operating temperature range	For Chloroprene rubber : -40°C to + 100°C (-40°C to + 80°C for KBALT) For Silicon rubber : -60°C to + 130 °C (-60°C to + 80°C for KBALT) Up to -20°C for galvanized carbon steel models
Ingress protection	IP66/IP68
Gland material	Brass, Aluminium, stainless steel or galvanized carbon steel
Seal material	Chloroprene rubber or silicon rubber
Cable type	Armoured, Non-armoured or Shielded
Gland sizes	Metric thread size:12,16,20,25,32,40,50,63,75,90,100,110,130 NPT thread size :1/4",3/8",1/2",3/4",1",1¼",1½",2", 2½",3", 3 ½",4",5"

Type	KBA, KBA..LT, KBA..LSK, MKBU
Design specification/ Compliance code	IEC 60079-0:2011, IEC 60079-1:2014, IEC 60079-31:2013, IEC 60079-7:2015
Classification Hazardous area	Ex db I Mb ; Ex eb I Mb
Certification	CESI 13 ATEX 033X and IECEX CES 13.0013X
Continuous operating temperature range	For Chloroprene rubber : - 40°C to + 80°C For Silicon rubber : - 60°C to + 80 °C Up to -20°C for galvanized carbon steel models
Ingress protection	IP66/IP68
Gland material	Brass, stainless steel or galvanized carbon steel
Seal material	Chloroprene rubber or silicon rubber
Cable type	Armoured, Non-armoured or Shielded
Gland sizes	Metric thread size: 20,25,32,40,50,63,75,90 NPT thread size :1/2",3/4",1",1¼",1½",2", 2½",3"

Type	TAURUS (KBAT)
Design specification/ Compliance code	IEC 60079-0:2011, IEC 60079-1:2014, IEC 60079-31:2013, IEC 60079-7:2015
Classification Hazardous area	Ex db IIC Gb and Ex eb IIC Gb ; Ex tb IIIC Db
Certification	IECEX CES 13.0013X ; CESI 13 ATEX 033X
Continuous operating temperature range	For Chloroprene rubber : -40°C to + 80°C For Silicon rubber : -60°C to + 100 °C Up to -20°C for galvanized carbon steel models
Ingress protection	IP66/IP68
Gland material	Brass, stainless steel or galvanized carbon steel
Seal material	Chloroprene rubber or silicon rubber
Cable type	Armoured, Non-armoured or Shielded
Gland sizes	Metric thread size:16,20,25,32,40,50,63 NPT thread size :3/8",1/2",3/4",1",1¼",1½",2"

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Type	OCTANS (EBU, EBM, EBS, EBMC, EBLQ, EBLs, EBLN, EBMS)
Design specification/ Compliance code	IEC 60079-0:2017, IEC 60079-1:2014, IEC 60079-31:2013, IEC60079-7 :2015, IEC 62444:2010
Classification Hazardous area	Ex db IIC Gb and Ex eb IIC Gb ; Ex tb IIIC Db
Certification	IMQ 13 ATEX 018X, IECEX IMQ 13.0006X
Continuous operating temperature range	For Chloroprene rubber: -40°C to + 80°C For Silicon rubber: -60°C to + 80 °C Up to -20°C for galvanized carbon steel models
Ingress protection	IP66/68
Gland material	Brass, Aluminium, stainless steel or galvanized carbon steel
Seal material	Chloroprene rubber or silicon rubber
Cable type	Non-armoured
Gland sizes	Metric thread size:8,12,16,20,25,32,40,50,63,75,80,90,100, 110,115,130 NPT thread size:1/4",3/8",1/2",3/4",1",1¼",1½",2",2½",3, 4",5"

Type	EBU...(axb), EBM.....(axb), EBMC...(axb), EBS...(axb), EBLs...(axb), EBLQ...(axb), EBLN...(axb), EBMS...(axb)
Design specification/ Compliance code	IEC 60079-0:2017, IEC 60079-1:2014, IEC 60079-31:2013, IEC60079-7 :2015, IEC 62444:2010
Classification Hazardous area	Ex eb IIC Gb ; Ex tb IIIC Db
Certification	IMQ 13 ATEX 018X IECEX IMQ 13.0006X
Continuous operating temperature range	For Silicon rubber : - 60°C to + 140 °C Up to -20°C for galvanized carbon steel models
Ingress protection	IP66/IP68
Gland material	Brass, Aluminium, stainless steel or galvanized carbon steel
Seal material	Silicon rubber
Cable type	Non armoured flat cable
Gland sizes	Metric thread size:20,25, NPT thread size :1/2",3/4"

Type	DORADO (BA)
Design specification/ Compliance code	EN60079-0:2009, EN60079-1:2007, EN60079-7:2007, EN60079-31:2009 , EN62444:2013
Classification Hazardous area	Ex d IIC Gb/ Ex e IIC Gb/ Ex d I Mb/ Ex e I Mb/ Ex tb IIIC Db IP66/68
Certification	IMQ 11 ATEX 036,
Continuous operating temperature range	For Nitrile rubber: -30°C to + 120°C For Chloroprene rubber: -40°C to + 100°C For Silicone rubber: -60°C to + 180°C
Ingress protection	IP66/68
Gland material	Brass, Stainless steel
Seal material	Nitrile rubber, chloroprene rubber or silicone rubber
Cable type	Armoured
Gland sizes	Metric thread size: 16,20,25,32,40,50,63,75,90,110 NPT thread size: 3/8",1/2",3/4",1",1¼",1½",2",2½",3, 4"

Type	PHOENIX (SV..H, ST..H)
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Design specification/ Compliance code	IEC 60079-0:2011, IEC 60079-7:2015 IEC 60079-31:2013 IEC 62444:2010
Classification Hazardous area	Ex eb IIC Gb/ Ex tb IIIC Db IP66/68
Certification	IMQ 13 ATEX 029X, IECEX IMQ 14.0002X
Continuous operating temperature range	For Silicone rubber: -60°C to + 80°C
Ingress protection	IP66/68
Gland material	Brass, stainless steel
Seal material	Silicone rubber
Cable type	Not armoured
Gland sizes	Metric thread size: 25 NPT thread size: 3/4"

Type	VIRGO (BDRV) drain valve
Design specification/ Compliance code	IEC 60079-0:2011, IEC 60079-7:2015 IEC 60079-31:2013 IEC 62444:2010
Classification Hazardous area	Ex eb IIC Gb/ Ex tb IIIC Db IP66
Certification	IMQ 13 ATEX 030 X, IECEX IMQ 14.0003X
Continuous operating temperature range	-60°C to + 85°C
Ingress protection	IP66
Gland material	Brass, stainless steel
Seal material	Silicon rubber
Cable type	
Gland sizes	Metric thread size:20,25 NPT thread size: 1/2",3/4"

Type	Metal adaptors and plugs (B-RA, B-RB, B-RM, B-RN, B-TS, MB-TS, NB-TS)
Design specification/ Compliance code	IEC 60079-0:2011, IEC 60079-1:2014, IEC 60079-31:2013, IEC 60079-7:2015, IEC 62444 :2010
Classification Hazardous area	Ex db IIC Gb and Ex eb IIC Gb ; Ex tb IIIC Db
Certification	IECEX CES 13.0022X, CESI 13 ATEX 066X
Continuous operating temperature range	For Chloroprene rubber : -40°C to + 100°C For Silicon rubber : -60°C to + 130 °C For galvanized carbon steel: -20°C to +100°C
Ingress protection	IP66/68
Gland material	Brass, stainless steel, galvanized carbon steel
Seal material	Chloroprene rubber or silicon rubber
Gland sizes	Metric thread size: 16,20,25,32,40,50,63,75,90,110 NPT thread size: 3/8",1/2",3/4",1",1¼",1½",2",2½",3, 4"

Type	KBCTA, KBCTN
Design specification/ Compliance code	IEC 60079-0:2011, IEC 60079-1:2014, IEC 60079-31:2013, IEC 60079-7:2015,
Classification Hazardous area	Ex db I Mb ; Ex eb I Mb ; Ex db IIC Gb ; Ex eb IIC Gb ; Ex tb IIIC Db
Certification	CESI 17 ATEX 007X and IECEX CES 17.0029X

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Continuous operating temperature range	For silicone rubber : - 60°C to + 100°C
Ingress protection	IP66/IP68
Gland material	Brass or stainless steel
Seal material	Silicone
Cable type	Armoured (for KBCTA), Non-Armoured (for KBCTN)
Gland sizes	Metric thread size:16,20,25,32,40,50,63,75,90 NPT thread size :3/8",1/2",3/4",1",1 1/4",1 1/2",2", 2 1/2",3"

Type	*BBVP-X01
Design specification/ Compliance code	IEC 60079-0:2011, IEC 60079-7:2015 IEC 60079-31:2013 IEC 62444:2010
Classification Hazardous area	Ex eb IIC Gb/ Ex tb IIIC Db IP66
Certification	IMQ 13 ATEX 030 X, IECEx IMQ 14.0003X
Continuous operating temperature range	For NBR rubber : - 40°C to + 100°C
Ingress protection	IP66/IP68
Gland material	Stainless steel
Seal material	NBR
Cable type	
Gland sizes	Metric thread size:From M12 NPT thread size : From 1/4" PG thread size : From PG7

Type	KBC, KBCO, KBCU, RKBCU
Design specification/ Compliance code	IEC 60079-0:2011, IEC 60079-1:2014, IEC 60079-31:2013, IEC 60079-7:2015,
Classification Hazardous area	Ex db I Mb ; Ex eb I Mb ; Ex db IIC Gb ; Ex eb IIC Gb ; Ex tb IIIC Db
Certification	IMQ 13 ATEX 030X/IECEx IMQ 14.0003X
Continuous operating temperature range	- 60°C to + 80 °C
Ingress protection	IP66/IP68
Gland material	Brass, stainless steel or galvanized carbon steel
Seal material	Chloroprene rubber or silicon rubber
Cable type	Armoured, Non-armoured or Shielded
Gland sizes	Metric thread size:From M16,M20,M25,M32,M40,M50,M63,M75,M80,M90,M100 NPT thread size : From 3/8",1/2",3/4",1",1 1/4", 1 1/2",2", 2 1/2",3", 3 1/2", 4"

Name and place of manufacturer

BIMED TEKNIK ALETLEK SAN. TIC. A.S. Istanbul, Turkey	BIMED TEKNIK Romania SLR Arges, Romania
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Application/Limitation

Manufacturer's application and assembly instructions shall be followed.

The information related to Ex certification from recognized test institution is given as information only. Applications where Ex certified equipment is required will in general be subject to approval case by case based on documentation as required in DNV rules.

Type Approval documentation

Tests carried out

Type tests in accordance with IEC/EN60079-0, IEC/EN60079-7, IEC/EN60079-31, IEC/EN60079-1 & IEC/EN 62444

Marking of product

BMD – type designation – Ex rating

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the periodical assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routines (RT) checked (if not available tests according to RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Periodical assessment to be performed at 2 and 3.5 year and at renewal.

END OF CERTIFICATE