



Marine & Offshore

Certificate number: 09777/E1 BV

File number: ACE 02/131/01

Product code: 2611H

*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*

**Schneider Electric Industries SAS**

L'Isle d'Espagnac - FRANCE

*for the type of product*

**PUSH BUTTONS (LOW VOLTAGE)**

CONTROL and SIGNALLING UNITS: XB4B, XB4F, XB5A, XB5F, XB5E, XD4PA, XD5PA, XB5KS

### Requirements:

Bureau Veritas Rules for the Classification of Steel Ships.

IEC 60947-5-1 (2020), IEC 60947-5-5 (2016)

*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: 17 Aug 2027**

**For Bureau Veritas Marine & Offshore,**

At BV BORDEAUX, on 14 Sep 2023,

Gabriel ZIMMER

***This certificate was created electronically and is valid without signature***



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](http://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=ufbavyhz5p>

BV Mod. Ad.E 530 June 2017

This certificate consists of 5 page(s)

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION:

#### **PUSH BUTTONS and PILOT LIGHTS (low voltage)**

##### Buttons, indicator lamps and buttons with integrated indicator lamps:

Each complete product (XB4B, XB4F, XB5A, XB5F, XB5K) includes different parts (operator, fixing base, pilot light, contact).

The different types of parts can be fitted together.

XB4B, XB4F: with chromium metallic flange

XB5A, XB5E, XB5F, XB5K: with plastic flange

##### Joystick:

2/4 directions: with or without return to middle position.

XD4PA: with chromium metallic flange

XD5PA: with plastic flange

<b>Product Type</b>	<b>Rated Voltage Ue (V)</b>	<b>Maximum Operating Current Ie (A)</b>	<b>Remarks</b>
<b>Push Button</b>	<b>Alternative</b>	<b>Current</b>	IEC 60947-5 - Designation/category
XB4B, XB4F XB5A, XB5F XALK84W XALK178W	600	1.2	A600 / AC-15
XD4PA XD5PA	240	3	
	120	6	
<b>Push Button</b>	<b>Direct</b>	<b>Current</b>	
XB4B, XB4F XB5A, XB5F XALK84W, XALK178W	600	0.1	Q600 / DC-13
	250	0.27	
	125	0.55	R300 / DC-13
XD4PA	250	0.1	
XD5PA	125	0.22	
<b>Electrical Blocks</b>	<b>Alternative</b>	<b>Current</b>	
ZBE1016, ZBE1016P ZBE1026, ZBE1026P	24	0.1	Resistive maximum
ZBE201, ZBE5..., and contact blocks with quick connect terminals	240	3	A300 / AC-15
	120	6	
ZBE302	240	1.5	B300 / AC-15
	120	3	
ZBE101 ZBE102 ZENL...	600	1.2	A600 / AC-15
	240	3	
	120	6	
<b>Electrical Blocks</b>	<b>Direct</b>	<b>Current</b>	
ZBE1016, ZBE1016P ZBE1026, ZBE1026P	24	0.1	Resistive maximum
ZBE101, ZBE102	600	0.1	Q600 / DC-13
	250	0.27	
	125	0.55	
ZBE201, and contact blocks with quick connect terminals	250	0.27	Q300 / DC-13
	125	0.55	
ZBE5...	250	0.55	P300 / DC-13
	125	1.1	
ZBE302 ZENL...	250	0.11	R300 / DC-13
	125	0.22	

Product Type	Rated Voltage U <sub>e</sub> (V)	Maximum Operating Current I <sub>e</sub> (A)	Remarks
<b>Modular Pilot Light</b>	<b>Voltage</b>	<b>Consumption</b>	
ZBV6	250 V max	2.4 W max	Direct supply for BA9s bulb
ZBVJ, ZALVJ	12 V AC/DC	15 mA	LED type
ZBVB, ZBV18B, ZALVB	24 V AC/DC	15 mA	
ZBVG, ZBV18G	110 / 120 V AC	19 mA	
ZALVG	48 / 120 V AC	14 mA	
ZBVM.4, ZALVM	230 V AC	19 mA	
ZBV18M	230 V AC	18 mA	
ZBVM.5, ZBVM	230 V AC	14 mA	
ZBVBG, ZALVBG	24 / 120 V AC/DC	9 mA	
ZBVGMIT	110 / 230 V AC	13 mA	
ZBY9W2B or 3B	24 V AC/DC	18 mA	
ZBY9W2G	120 V AC/DC	14 mA	
ZBY9W2M	230 V AC/DC	14 mA	
ZB4BV3, ZB5AV3	110 - 120 V, 50/60 Hz	BA9s 6V, 1.2W	Transformer Type
ZB4BV4, ZB5AV4	230 V 50 Hz or 220 -240 V, 60 Hz		
ZB4BV5, ZB5AV5	400 V, 50 Hz		
ZB4BV8, ZB5AV8	440 - 480 V, 60 Hz		
ZB4BV9, ZB5AV9	550 - 600 V, 60 Hz		
<b>Monolithic Pilot Light</b>	<b>Alternative</b>	<b>Current</b>	
XB5EVM	230/240 V AC	20 mA	LED type
XB5EVB	24 V AC/DC	27 mA	
XB5EVG	110/120 V AC	21 mA	
XB5KSB	24 V AC/DC	28 mA	Buzzer
XB5KS2B	24 V AC/DC	58 mA	Illuminated buzzer
XB5KSG, XB5KS2G	110/120 V AC/DC	20 mA	Buzzer & illuminated buzzer
XB5KSM	230/240 V AC	18 mA	Buzzer
XB5KS2M	230/240 V AC	35 mA	Illuminated buzzer

## 2. DOCUMENTS AND DRAWINGS:

- According to Document titled "Unités de commande et de signalisation D.22 à collerette métallique chromée" issued by Telemecanique.
- According to Document titled "Unités de commande et de signalisation D.22 à collerette plastique" issued by Telemecanique.
- Technical Data Sheet Harmony XB4 metal Pushbuttons, switches and pilot lights ref:36001-EN.indd version 17.0.
- Technical Data Sheet Harmony XB5 plastic Pushbuttons, switches and pilot lights ref:36001-EN.indd version 16.0.
- Specifications dated 14.Jun.2016.
- Catalog N° DIA5ED2121213EN, dated Oct 2021.
- Catalog N° DIA5ED2121212EN, dated Dec 2021.

**3. TEST REPORTS:**

According to Approval Tests N°s:

- SE 3 A 00 37 02, SE 3 A 00 43 02, SE 3 A 00 67 02, SE 3 A 00 40 03, SE 3 A 00 19 02, SE 3 A 00 20 02
- SE 3 A 00 08 03, SE 3 A 01 15 01, SE 3 A 00 02 98, SE 3 A 00 90 02
- NH3 1529922, NH3 1529917, NH3 1529920, NH3 1529921
- According to ACE02/003/27 Essais de Vibrations Sinusoïdales et de chocs N°9702002 dated 1997.
- Test report n°08-2751 Ref: Cofrac.DOC dated 14.10.2008
- Test report n°08-3295 Ref: Cofrac.DOC dated 20.11.2008
- Test report n°08-3296 Ref: Cofrac.DOC dated 21.11.2008
- Test report n°08-3306 Ref: Cofrac.DOC dated 20.11.2008
- Test report n°08-3454 Ref: Cofrac.DOC dated 20.02.2009
- Test report n°08-3460 Ref: Cofrac.DOC dated 15.01.2009
- Test report n°11-0989 Ref: IP69K High Pressure water test ZB5-ACdated 05.04.2011
- Test report n°11-1013 Ref: IP69K High Pressure water test ZB5-ACdated 07.04.2011
- Test report n°11-1014 Ref: IP69K High Pressure water test ZB4-BCdated 07.04.2011
- IECEE CB Scheme certificate No. FR 653549A, dated 23.Jul.2015.
- IECEE CB Scheme certificate No. FR 653549B, dated 23.Jul.2015.
- Vibration test report ref. 16-1176, dated 05.Sep.2016.
- Vibration test report ref. 16-1177, dated 05.Sep.2016.
- Vibration test report ref. 16-1178, dated 06.Sep.2016.
- Vibration test report ref. 16-1179, dated 08.Sep.2016.
- Vibration test report ref. 16-1163, dated 05.Sep.2016.
- Vibration test report ref. 16-1179, dated 05.Sep.2016.
- IECEE CB Scheme certificate No. DK-83825-M1-UL, dated 29.Nov.2021.
- IECEE CB Scheme certificate No. DK-83997-M1-UL, dated 29.Nov.2021.
- IECEE CB Scheme certificate No. DK-70933-A1-UL, dated 16 May 2018.
- IECEE CB Scheme test report No. NC28952-D2-CB-1-Amendment-1, dated 22.Nov.2021.
- IECEE CB Scheme test report No. NC28952-D3-CB-1-Amendment-1, dated 22.Nov.2021.
- IECEE CB Scheme test report No. 4788189445B, dated 25 Apr 2018.
- ZB4F 18-1457\_Vibration ZB4FG6 Cofrac, dated 01.Fev.2019.
- ZB4F 18-0956\_Vibration ZB4FA4 Cofrac, dated 30.Aout.2018.
- ZB4F 18-0954\_Vibration ZB4FV033 Cofrac, dated 30.Aout.2018.
- ZBY9W 19-0399\_Vibration Cofrac, dated 26.Avr.2019.
- XALK84W 19-0397\_Vibrations Cofrac, dated 30.Avr.2019.
- XALK178W 19-0401\_Vibration Cofrac, dated 06.Juin.2019.
- ZBE302 20-1447\_Vibration ZB5AS844\_ZBE302 Cofrac, dated 19.Jan.2021.
- ZBE302 20-1433\_Vibration ZB4BT84\_ZBE302 Cofrac, dated 19.Jan.2021.
- XB5KS 17-1251\_Vibration Cofrac, dated 21.Sep.2017.
- ZB5F 21-0309 Cold and Dry ZB5FV0, dated 18.Fev.2021.
- ZBY9W 19-1178\_Cold Cofrac, dated 10.Mai.2019.
- XALK84W 19-1173\_Cold Cofrac, dated 10.Mai.2019.
- XALK178W 19-1183\_Cold Cofrac, dated 10.Mai.2019.
- ZBE302 20-1444\_Cold ZB5AS844\_ZBE302 Cofrac, dated 22.Dec.2020.
- ZBE302 20-1430\_Cold ZB4BT84\_ZBE302 Cofrac, dated 22.Dec.2020.
- XB5KS2 Cold Test N° PHA4123324-00, dated 17 Jun 2021.
- ZBY9W 19-1180\_Dry heat Cofrac, dated 12.Juil.2019.
- XALK84W 19-1175\_Dry heat Cofrac, dated 12.Juil.2019.
- XALK178W 19-1185\_Dry heat Cofrac, dated 12.Juil.2019.
- ZBE302 20-1442\_Dry heat ZB5AS844\_ZBE302 Cofrac, dated 09.Dec.2020.
- ZBE302 20-1428\_Dry heat ZB4BT84\_ZBE302 Cofrac, dated 09.Dec.2020.
- ZBVGM 20-1187 Dry heat, dated 29.Oct.2020.
- XB5KS2 Dry heat N° PHA4123325-00, dated 18 Jun 2021.
- XB5KS EMC tests N° COF\_8517-5\_00, COF\_8517-6\_00 and COF\_8517-7\_00, dated 09 Feb 2023.
- XB5KS EMC tests N° RCEM\_22041, dated 11 Jul 2022.
- XB5KS EMC tests N° RCEM\_22109\_A0, dated 30 Jan 2023.

**4. APPLICATION / LIMITATION:**

Bureau Veritas Rules for the Classification of Steel Ships.

**5. PRODUCTION SURVEY REQUIREMENTS:**

5.1 - The above products are to be supplied by **Schneider Electric Industries SAS** 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 - **Schneider Electric Industries SAS** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

5.4 - For information, **Schneider Electric Industries SAS** has declared to Bureau Veritas the following production site(s):

**Schneider Electric Industries SAS**

**Zone Industrielle**

**BP 660**

**16340 L'Isle d'Espagnac**

**FRANCE**

**Schneider Electric, a.s.**

**Cizovska 447**

**397 01 Pisek**

**CZECH REPUBLIC**

**PT SCHNEIDER ELECTRIC MANUFACTURING BATAM**

**BATAMINDO INDUSTRIAL PARK**

**BLK 1 -4 & 208 - MUKA KUNING**

**BATAM RIAU**

**INDONESIA**

**6. MARKING OF PRODUCT:**

6.1 - Trade name.

6.2 - Date of manufacture and serial number.

6.3 - Equipment type or model identification under which it was type-tested

**7. OTHERS:**

7.1 - It is **Schneider Electric Industries SAS** 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.

7.2 - This certificate supersedes the Type Approval Certificate N° 09777/D0 BV issued on 20 Sep 2016 by the Society.

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