



TYPE APPROVAL CERTIFICATE

Certificate no.:
TAE0000190
Revision No:
2

This is to certify:
that the Pilot Device

with type designation(s)
Several types with variations

issued to
PEHA Elektro GmbH & Co. KG
Lüdenscheid, Nordrhein-Westfalen, Germany

is found to comply with
DNV rules for classification – Ships, offshore units, and high speed and light craft

Application:

Rated voltage: 250V a.c.
Rated current: 10 A, 16 A for switches (depending of switch type), 16A for sockets
Rated IP protection: IP44 to IP66

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Issued at **Hamburg** on **2025-01-03**

for **DNV**

This Certificate is valid until **2029-10-23**.

DNV local unit: **Essen**

Approval Engineer: **Harald Amberger**

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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to USD 300 000.

Product description

Type: Pilot devices / installation system: Switches, sockets electronic elements with several types with variations.

The following basic elements of the installation system may be combined with the program ranges:
 Standard, Dialog, AURA, NOVA tangenta, NOVA brilliance & Badora.

1. Basic Elements

Rocker switch	511/4, 512, 515, 516, 517, 516 GLK, 512 GLK, 612/2, 616/6, 613
Multicircuit switch	515 GL
Rocker switch 16 A	612/16, 612/16 GLK
Push button switch	550, 550/4, 556, 556 GLK, 515 T, 550 Z, 556 Z GLK, 619 T
Venetian blind switch	616/4, 604 T, 604/2 T
3 step switch 16 A	601/3
Time switch	665/15, 665/120
et. Seq	
Aerial socket	1921 E, 1921 G, 1922 G, 1923 G
Telecommunication joint box	1958 UAE (UAE 8 (8)), 1958/8 UAE (UAE 8/8).

2. Electronic Basic Elements

Dimmer for incandescent lamps	433/4, 434, 435 HAN, 436, 456, 430 POT, 430 T POT
Low voltage tungsten halogen dimmer (prim)	433 HAB, 435 HAB, 439 HAB
Flush-mounting motion detector	482, 483; 80.410 BM, 95.410 BM, 20.410 BM
Electronic time switch	80.410 R, 90.410 R, 95.410 R, 20.410 R, 814 J, 814 JS

3. Standard, Dialog, AURA, NOVA brilliance, NOVA tangenta, Badora, Concept 45 - Program

SCHUKO-socket	.. 6511, .. 6611
Export-socket "USA" 125 V	.. 6670/15 US, ..6670/20 US
Socket "Great Britain" 13 A	.. 6670 GB
Socket with Belgium grounding system	B .. 6671, B .. 6571
Loudspeaker socket (DIN 41 529)	..1930/4, .. 1932

4. COMPACTA – Program

Rocker switch (cut out)	711, 712
Rocket switch (change over)	716
Multicircuit switch	715
Pushbutton switch	750, 715 T
SCHUKO socket	6711
Socket with Belgium-France grounding system	6771
Socket without protective contact	1711

5. System Modul 45 - Concept 45

Rocker switch	211 EMS, 216 EMS, 216 EMS/45, 217 EMS, 212 EMS 206/4 EMS, 215 EMS
Multicircuit switch	215 EMS
Pushbutton switch	256 EMS, 256 EMS/45, 206/4 T EMS
Flush-mounting motion detector	290 BM
Electronic time switch	293/6, 293/2, 291 Z, 291 Z RTR, 291 JR
SCHUKO socket	6211 EMS, 6212 EMS, 6213 EMS
Socket with Belgium-France grounding system	B 6271 EMS, B 6272 EMS, B 6273 EMS
Aerial socket	2721 E, 2723 E
et. Seq	

6. Water Protected Program

Cast Aluminium range-surface/flush-mounting/built-in range

Pushbutton switch	326 AGU WA, 326 AGU WA GLK, IP 65; 326 AGU WU, 326 AGU WU GLK, IP 54; 356 AGU WA, 356 AGU WA GLK, IP 54; 356 AGU. WU, 356 AGU WU GLK, IP 54
SCHUKO socket	6621 AGU WA, 6622 SGU WA, IP 64; 6621 AGU WU, 6622 SGU WU, IP 54.
SCHUKO socket with bayonet cover	6621 AGU WE BAJ, IP 66.
CEE socket 16 A, 32 A	6981 AGU WE, 6991 AGU WU, IP 54.
Export socket USA 125 V	6670 AGU WA, IP 64; 6670 AGU WU, IP 54.
Socket with Belgium-France grounding system	B 6671 AGU WA, IP 65; B 6671 AGU WU, IP 54.

Application/Limitation

Accepted in accommodation area only.

This certificate is issued on the basis of the environmental test specification for electrical, electronic and programmable equipment and systems DNVGL-CG-0339.

Environmental categories:

Temperature	A
Humidity	B
Vibration	A

Type Approval documentation

VDE Test reports doc no. 25600-1610-0125/168252 issued 2014-01-30 & 25600-1610-0116/189830 issued 2014-02-05.

Cert. No.'s: VDE 9669, 97213, 40021905, -21910, -10976, -10966, -11436, -17707, -17698, -16689, -17739, -04297, CEBC 1062/1 dd. 26/06/2003; catalog, representative specimens, drawings with part-list, inst./operating instruction.

Tests carried out

Type tests in accordance with GL Guidelines for the Performance of Type Approvals, Chapter 2, Edition 2012, IEC 60669-2-1, 08-2005; DIN VDE 0620, 04-2005; DIN VDE 0632, 04-2007.

Marking of product

Manufacturers name and Type designation.

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 assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine Tests (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 is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE