

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Pilot Device**

with type designation(s)
Several types with variations

Issued to

PEHA Elektro GmbH & Co. KG
Lüdenscheid, Germany

is found to comply with
DNV GL rules for classification – Ships and offshore units

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 GL.

This Certificate is valid until **2019-06-23**.

Issued at **Høvik** on **2016-08-24**

DNV GL local station: **Essen**

Approval Engineer: **Nicolay Horn**

for **DNV GL**

Marit Laumann
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: 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;

Job Id: **262.1-021935-1**
Certificate No: **TAE0000190**

Electronic time switch
SCHUKO socket
Socket with Belgium-France
grounding system
Aerial socket
et. Seq

293/6, 293/2, 291 Z, 291 Z RTR, 291 JR;
6211 EMS, 6212 EMS, 6213 EMS;
B 6271 EMS, B 6272 EMS, B 6273 EMS;
2721 E, 2723 E.

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 GL Guidelines for the Performance of Type Approvals, Chapter 1
- Procedure (VI-7-1), Edition 2007.

Environmental categories:

Temperature	A
Humidity	B
Vibration	A

Type Approval documentation

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



Job Id: **262.1-021935-1**
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The scope of the periodical assessment is to verify that the conditions stipulated for the type approval is complied with and that no alterations are made to the product design or choice of materials. The main elements of the survey to be dealt with:

- Ensure that type approved documentation is available.
- Ensure that materials used comply with type approved documents and/or referenced material specifications.
- Review design, materials, performance and production process with respect to possible changes, in order to ensure compliance with the type approved documentation and/or referenced material specifications.
- Ensure traceability between manufacturer's product marking and the DNV Type Approval Certificate.

Assessment to be performed at least every second year.

END OF CERTIFICATE