

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Joystick Switches**with type designation(s)
WK, WE, KB, KF, KE, KC

Issued to

Euchner GmbH + Co. KG
Leinfelden-Echterdingen, Germanyis found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft**Application :****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**

Temperature	B
Humidity	B
Vibration	A
EMC	N.A
Enclosure	Required protection according to DNV GL Rules shall be provided upon installation on board

This Certificate is valid until **2025-11-19**.Issued at **Hamburg** on **2020-11-20**for **DNV GL**DNV GL local station: **Augsburg**Approval Engineer: **Didier Girardin**.....
Joannis Papanuskas

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.

Job Id: **262.1-021007-2**
Certificate No: **TAA000007E**
Revision No: **1**

Product description

- Type WK: 1 to 8 actuating directions with spring return switches or combined 1 changeover contact for each direction. Utilization Category : AC 15 230V/4A, DC 13 24V/2A , I min 12mA/24V.
- Type WE: 1 to 8 actuating directions with stayput or spring return switches or combined 1 changeover contact for each direction. Utilization Category : AC 15 230V/10A, DC 13 24V/4A , I min 50mA/24V.
- Type KB: 1 to 8 actuating directions, 4 switching elements, with stayput or spring return switches or combined 1 changeover contact for each direction. Utilization Category with silver-contacts: AC 15 230V/5A, DC 13 24V/3A , I min 10mA/24V with gold-contacts: DC 13 24V/2A , I min 1mA/ 12VDC or U min 5VDC.
- Type KF: 1 to 8 actuating directions, 4 switching elements, with stayput or spring return switches or combined 1 changeover contact for each direction. Utilization Category : AC 15 230V/5A, DC 13 24V/3A , I min 10mA/24V.
- Type KE: 1 to 8 actuating directions, 4 switching elements, with stayput or spring return switches or combined 1 changeover contact for each direction. Utilization Category : AC 15 230V/4A, DC 13 24V/2A , I min 12mA/24V.
- Type KC: 1 to 8 actuating directions with one or two contacts in each direction, with stayput or spring return switches or combined. Utilization Category : AC 15 230V/4A, DC 13 24V/2A , I min 12mA/24V.

Type Approval documentation

Hidden

Test reports: Prüfbericht 12/00 and 46/05 and 025/2011 and 075/2015.

Tests carried out

Applicable tests according to Class Guideline DNVGL-CG-0339, Edition December 2019.

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the 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.