

# TYPE APPROVAL CERTIFICATE

This is to certify that the undernoted product(s) has/have been tested in accordance with the relevant requirements of the DNV GL Type Approval System.

Certificate No. **61 983 - 14 HH**

Company **Noris Automation GmbH**  
**Friedrich Barnewitz Str. 10**  
**18119 Rostock, GERMANY**

Product Description **Control Lever System Azimuth**

Type **NORISYS LA4**

Environmental Category **F, EMC 1**

Technical Data /  
 Range of Application **The NORISYS 4 Control Lever Devices LA4 are equipped with an interface electronic which provides signals and communication interfaces for the remote control system designed for main propulsion plants.**

**Supply Voltage: 24 VDC**  
**Interfaces: 1 CAN, 1 CAN/ RS-232/ RS-485**  
**Digital Inputs: 2, 1 PWM**  
**Analogue Outputs: 2 (4..20mA)**  
**Protection Class: IP56 on front side**

The standard control lever is available for propulsion plants which are movable in azimuth direction.

System may be composed of:

**LA4 Azimzth Handle**  
**LA4-ESS Azimuth Handle with Electronic Shaft System**

Software version 1.01.041

Test Standard **GL Guidelines for the Performance of Type Approvals, Chapter 2- Test Requirements for Electrical / Electronic Equipment and Systems (VI-7-2), Edition 2012**

Documents **Test report : Teseq No. D/13/4085/11, 2013-12-20; Treo No. 023-14 Ver.2, 2014-04-29; Tüv No. 21215783 001, 2014-04-23; Treo No. 255-13 Ver.1, 2013-11-13; Treo No. 288-13 Ver.1, 2014-03-07; Noris No. NAR-PB-0111-2-en Ver. 1.06, 2014-05-05**

Remarks **This certificate is issued on the basis of GL Guidelines for the Performance of Type Approval, Chapter 1 - Procedure (VI-7-1), Edition 2007**

Valid until **2019-06-05**

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File No. **I.B.01**

**Hamburg, 2014-06-06**

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**DNV GL**

  
 Marco Rinkel

  
 Holger Jansen

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## Documents:

Norisys Control Lever System Manual Ver. 1.17; Doc.No. NAR-KD-0111-1-en; 2014-03-07  
Firmware element ModBus,firmware routines description Ver. 1.01;Doc.No. NAR-PD-0110-1-en;2011-09-26  
Norisys 4 Control Lever System LA4,Overview Suppliers Ver.1.01; Doc.No. NAR-PD-0111-11-en;2013-11-27  
Noristar Control Lever Firmware Ver. 1.00; Doc.No. NAR-PD-0111-2-en; 2014-03-10  
Norisys Control Lever System LS4/LA4, Hardware Description Ver. 1.00; Doc.No. NAR-PD-0111-1-en;  
2014-02-14  
Noris Wiring Diagrams: SAR45-e, 2012-04-01; SAR60-e, 2012-07-04; SAR85-a, 2012-12-19;  
SAR88-b, 2013-06-20  
Noris Mechanical Documents: 092.037.03.100.A,2013-06-21; 092.017.03.218.A,2013-06-21;  
092.017.03.408.A,2013-05-03; 092.004.03.200.A,2011-12-19

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