



Marine & Offshore

Certificate number: 37735/B0 BV

File number: AP4613

Product code: 2617H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

www.veristar.com

TYPE APPROVAL CERTIFICATE

This certificate is issued to

NORIS Automation GmbH

Nürnberg - GERMANY

for the type of product

SIGNALING AND CONTROL DEVICES

NORIMETER NIQ3, NIQ31, NIR3 and NIR31

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships

EC Code: 33B / 43BS

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: 28 Sep 2025

For Bureau Veritas Marine & Offshore,

At BV HAMBURG, on 28 Sep 2020,

Dirk Hoefner



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. 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.veristarnb.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=pmduqlzmca>

BV Mod. Ad.E 530 June 2017

This certificate consists of 4 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

The NORIMETER NIQ3, NIQ31, NIR3 and NIR31 series are microprocessor-controlled analogue indicators.

1.1 - Order Code:

NI	a	b	ccc	-	dd	eeee	-	fff	Description	
Housing type:	Q								Quadratic	
	R								Round	
Series:	3								Scale angle up to 300° with pointer	
	31								Scale angle up to 360° with pointer disc	
Housing size:		060							Housing around ø60mm	
		080							Housing around ø80mm	
		100							Housing around ø100mm	
		130							Housing around ø130mm	
		072							Housing square 72 x 72mm	
		096							Housing square 96 x 96mm	
		144							Housing square 144 x 144mm	
Input signal:					F1				Pulsating DC voltage, 0.2Hz..140KHz	
					F2				AC-Voltage, 0.2Hz..140KHz	
					FD1				Puls. DC voltage, 0.2Hz..140KHz with direction	
					FD2				AC-Voltage, 0.2Hz..140KHz with direction	
					H0				NTC, selectable	
					H1				NTC, 40..120°C	
					H2				NTC, 5..70°C	
					H3				NTC, 114..200°C	
					I0				Current, selectable	
					I1				Current, 0..20mA DC	
					I2				Current, 4..20mA DC	
					I4				Current, -20mA..0..+20mA DC	
					P0; P0L3; P0L4				Range, selectable; min.-30 ... max.600°C	
					PT0; PT0L3; PT0L4				Range, selectable; min.-30 ... max.600°C	
					P1; P1L3; P1L4				PT100, 0 °C..120 °C, 2;-;3;-;4-conductor	
					PT1; PT1L3; PT1L4				PT1000, 0 °C..120 °C, 2;-;3;-;4-conductor	
					P2; P2L3; P2L4				PT100, 0 °C..150 °C, 2;-;3;-;4-conductor	
					PT2; PT2L3; PT2L4				PT1000, 0 °C..150 °C, 2;-;3;-;4-conductor	
					P3; P3L3; P3L4				PT100, 0 °C..200 °C, 2;-;3;-;4-conductor	
					PT3; PT3L3; PT3L4				PT1000, 0 °C..200 °C, 2;-;3;-;4-conductor	
					P4; P4L3; P4L4				PT100, 0 °C..250 °C, 2;-;3;-;4-conductor	
					PT4; PT4L3; PT4L4				PT1000, 0 °C..250 °C, 2;-;3;-;4-conductor	
					P5; P5L3; P5L4				PT100, 0 °C..300 °C, 2;-;3;-;4-conductor	
					PT5; PT5L3; PT5L4				PT1000, 0 °C..300 °C, 2;-;3;-;4-conductor	
					P6; P6L3; P6L4				PT100, 0 °C..400 °C, 2;-;3;-;4-conductor	
					PT6; PT6L3; PT6L4				PT1000, 0 °C..400 °C, 2;-;3;-;4-conductor	
					P7; P7L3; P7L4				PT100, 0 °C..500 °C, 2;-;3;-;4-conductor	
					PT7; PT7L3; PT7L4				PT1000, 0 °C..500 °C, 2;-;3;-;4-conductor	
					P8; P8L3; P8L4				PT100, 0 °C..600 °C, 2;-;3;-;4-conductor	
					PT8; PT8L3; PT8L4				PT1000, 0 °C..600 °C, 2;-;3;-;4-conductor	
					P11; P11L3; P11L4				PT100, -30 °C..120 °C, 2;-;3;-;4-conductor	
					PT11; PT11L3; PT11L4				PT1000, -30 °C..120 °C, 2;-;3;-;4-conductor	
					P12; P12L3; P12L4				PT100, 0 °C..100 °C, 2;-;3;-;4-conductor	
					PT12; PT12L3; PT12L4				PT1000, 0 °C..100 °C, 2;-;3;-;4-conductor	
					U0				Voltage, selectable	
					U1				Voltage, 0..10V DC	
					U2				Voltage, 2..10V DC	
					U4				Voltage, -10V..0..+10V DC	
					UG0				Voltage, 0..350V DC	
	Scale design:						-xxx			Scale design, e.g logo, colour, ...
	Custom specific functions:						Vxxx			Activated options*
	Optional:							MED		MED approved type

* min/max display; limit switch output; signal LED; blinking pointer; motor with clockwise limit or/and special scale design

1.2 - Main characteristics:

Power supply: 24V DC (18..36V DC)
 Scale angle: 240°; 300° or 360°
 Lighting: dimmable
 Mounting: build-in mounting
 Degree of protection: front: IP66/IP67/IP68
 rear: IP30 or IP66/IP67/IP68 (optional)

2. DOCUMENTS AND DRAWINGS:

- DB_NIQ3_en V02.03 dated 07/2013; DB_NIR3_en V02.03 dated 07/2013; Info 645E Rev. 1.6 dated 16 July 2013
 - 31.101.100; 31.101.110; 31.101.200; 31.101.220; 31.101.300; 31.101.400
 - 31.114.100; 31.114.110; 31.114.200; 31.114.220; 31.114.300; 31.114.400
 - 31.246.100; 31.246.110; 31.246.200; 31.246.220; 31.246.300; 31.246.400
 - 31.305.100; 31.305.110; 31.305.200; 31.305.220; 31.305.300; 31.305.400
 - 32.274.100; 32.274.110; 32.274.200; 32.274.220; 32.274.300; 32.274.400; 32.275.100
 - 32.377.100; 32.377.110; 32.377.200; 32.377.220; 32.377.300; 32.377.400; 32.378.100
 - 32.420.100; 32.420.110; 32.420.200; 32.420.220; 32.420.300; 32.420.400; 32.421.100
 - SA685-1G_c; SA685-1R_b; SA686-1G_c; SA686-1R_a1; SA730-1G_a; SA730-1R_1; SA731-1G_b
 - SA731-1R_a1; SA732-1G_b; SA732-1R_a; SA733-1G_a; SA733-1R_1; SA734-1G; SA734-1R
 For B0 version:
 - DB-NIR3/NIQ3-EN V01.05 dated: 25/02/2019; DB-NIQ31-EN V01.04 dated: 25/02/2019;
 NAN-KD-0020-en V01.04 dated: 09/10/2019

3. TEST REPORTS:

- TÜV Rheinland LGA Products GmbH: E5.214/21152593 dated July 29,2010; 21218854_003 dated 14.01.2015;
 21225452-002 dated Nov 18,2014; 21225502-002 dated Dec 04,2014;
 - TÜV Rheinland Akademie GmbH: EB/TR 1403240-B dated 2014-12-03
 - Noris Group GmbH: TTBmp 14-002 Rev. 01 dated 22.09.2014; TTBmp 14-002 Rev. 01 dated 02.10.2014;
 VTBmp 10-001Rev. 01 dated 22.03.2010
 For B0 version:
 - ECL-EMC-TR-17-005-V01.00 dated: 19.01.17; ECL-EMC TR-20-102-V01.00 dated 2020.09.18

4. APPLICATION/LIMITATION:

4.1 - Bureau Veritas Rules and Regulations for the Classification of Steel Ships
 4.2 - Approval valid for ships intended to be granted with the following additional class notations: **AUT-UMS, AUT-CCS, AUT-PORT** and **AUT-IMS**.
 4.3 - Bureau Veritas Environmental Category, **EC Code: 33B / 43BS**
 4.4 - The above products have been tested according to IACS UR E10 Rev7.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The above mentioned products are to be supplied by **NORIS Automation GmbH** 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 - **NORIS Automation GmbH** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products:

NORIS Automation GmbH
Muggenhofer Straße 95
90429 Nürnberg
GERMANY

6. MARKING OF PRODUCT:

- Maker's name or trademark
 - Equipment type or model identification
 - Date of manufacture and/or serial number

7. OTHERS:

7.1 - It is the responsibility of **NORIS Automation GmbH** 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° 37735/A0 BV issued on 10 Jun 2015 by the Society.

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