

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Peripheral Equipment

with type designation(s)
Series 287, 289, 788, 789, 857, 858, 859

Issued to

WAGO Kontakttechnik GmbH & Co. KG
Minden, Germany

is 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.

Location classes:

Temperature B / D *

Humidity B

Vibration A / B *

EMC A / B *

Enclosure A

*** Location classes are specified in the product table on the next pages.**

Issued at **Hamburg** on **2017-10-05**

This Certificate is valid until **2022-10-04**.

for **DNV GL**

DNV GL local station: **Magdeburg**

Approval Engineer: **Heinz Scheffler**

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Joannis Papanuskas
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

Switching relay module, Interface module, Relay socket with relay, Isolation amplifier and transducer, Switching relay terminal block:

Product table

Item number	Designation	Tem	Vib	EMC
0287-0474	Relaismodul 4x; DC 24V; 1NO; 16A	B	A	B
0287-0475	Relaismodul 4x; DC 24V; 1NO; 16A; LL	B	A	B
0289-0175	Übergabemodul RJ-45; TBC 2-R; CAT5; MC; SSC	B	B	B
0289-0178	Übergabemodul RJ-45; POW-CON; TBC; CAT5; MC; SSC; CS	B	B	B
0289-0369	Übergabemodul KS; 2x40P; 16AI/AO; 2W; MC	D	A	B
0289-0545	Übergabemodul Sub-D; MA; 9P; SC; VER; TBC 2-R; MC	B	B	B
0289-0556	Übergabemodul Sub-D; FE; 15P; SC; VER; TBC 2-R; MC	B	B	B
0289-0575	Übergabemodul Sub-D; FE; 9P; SC; VER; TBC 2-R; MC; SSC	B	B	B
0289-0745	Übergabemodul HD-Sub-D; FE; 15P; SC; VER; TBC 2-D; MC	B	B	B
0788-0303/0003-0000	Relaismodul DC 12V; 1CO; 16A; RED; 15mm	B	A	B
0788-0304/0003-0000	Relaismodul DC 24V; 1CO; 16A; RED; 15mm	B	A	B
0788-0307/0003-0000	Relaismodul DC 110V; 1CO; 16A; RED; 15mm	B	A	B
0788-0312/0003-0000	Relaismodul DC 24V; 2CO; 8A; RED; 15mm	B	A	B
0788-0354/0003-0000	Relaismodul DC 24V; 1CO; 16A; LL; RED; 15mm	B	A	B
0788-0404/0003-0000	Relaismodul DC 24V; 1CO; 16A; AU; RED; 15mm	B	A	B
0788-0506	Relaismodul AC 24V; 1CO; 16A; RED; 15mm	B	A	B
0788-0507	Relaismodul AC 115V; 1CO; 16A; RED; 15mm	B	A	B
0788-0508	Relaismodul AC 230V; 1CO; 16A; RED; 15mm	B	A	B
0788-0512	Relaismodul AC 24V; 2CO; 8A; RED; 15mm	B	A	B
0788-0515	Relaismodul AC 115V; 2CO; 8A; RED; 15mm	B	A	B
0788-0516	Relaismodul AC 230V; 2CO; 8A; RED; 15mm	B	A	B
0788-0528	Relaismodul AC 230V; 1CO; 16A; RED; 15mm	B	A	B
0788-0538	Relaismodul AC 230V; 2CO; 8A; RED; 15mm	B	A	B
0788-0607	Relaismodul AC 115V; 1CO; 16A; AU; RED; 15mm	B	A	B
0788-0608	Relaismodul AC 230V; 1CO; 16A; AU; RED; 15mm	B	A	B
0788-0615	Relaismodul AC 115V; 2CO; 8A; AU; RED; 15mm	B	A	B
0788-0616	Relaismodul AC 230V; 2CO; 8A; AU; RED; 15mm	B	A	B
0789-0620	Strommessumformer I 80A; MODBUS; DC 24V	B	B	B
0857-0304	Relaismodul DC 24V; 1CO; 6A; YEL; 6mm	B	A	B
0857-0314	Relaismodul DC 24V; 1CO; 6A; AU; YEL; 6mm	B	A	B
0857-0358	Relaismodul AC/DC 230V; 1CO; 6A; YEL; 6mm	B	A	B
0857-0368	Relaismodul AC/DC 230V; 1CO; 6A; AU; YEL; 6mm	B	A	B
0857-0399	Relaismodul DC 24V; 1CO; 6A; YEL; 6mm	B	A	B
0857-0400	Trennverstärker UI; UI; ZERO/SPAN; DIP; DC 24V; 6mm	B	B	B
0857-0401	Trennverstärker UI; UI; DO; CONF; DC 24V; 6mm	B	B	A

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0857-0409	Trennverstärker UI(BIP); UI(BIP); ZERO/SPAN; DIP; DC24V; 6mm	B	B	A
0857-0411	Trennverstärker I 0-20mA; I 0-20mA; DC 24V; 6mm	B	B	B
0857-0412	Trennverstärker U 0-10V; U 0-10V; DC 24V; 6mm	B	B	B
0857-0413	Trennverstärker U 0-10V; I 0-20mA; DC 24V; 6mm	B	B	B
0857-0414	Trennverstärker U 0-10V; I 4-20mA; DC 24V; 6mm	B	B	B
0857-0415	Trennverstärker I 0-20mA; U 0-10V; DC 24V; 6mm	B	B	B
0857-0416	Trennverstärker I 4-20mA; U 0-10V; DC 24V; 6mm	B	B	B
0857-0423	Trennverstärker UI; 2I; DIP; DC 24V; 6mm	B	B	A
0857-0451	Passivtrenner 1-CH; I; I; PVI; 6mm	B	B	B
0857-0452	Passivtrenner 2-CH; I; 2I; PVI; 6mm	B	B	B
0857-0500	Frequenzmessumformer UI; CONF; DC 24V; 6mm	B	B	A
0857-0531	Grenzwertschalter ANALOG; REL/1CO; DO; CONF; DC 24V; 6mm	B	B	A
0857-0550	Strommessumformer I 5A; UI; DO; CONF; DC 24V; 6mm	B	B	A
0857-0724	SSR-Modul DC 24V; DC 0-24V; 3A; 2W; YEL; 6mm	B	A	B
0857-0800	Temperaturmessumformer PT; UI; DIP; DC 24V; 6mm	B	B	A
0857-0801	Temperaturmessumformer PT; UI; CONF; DC 24V; 6mm	B	B	A
0857-0808	Temperaturmessumformer PT46; UI; DIP; DC 24V; 6mm	B	B	A
0857-0809	Potipositionsmessumformer UI; DO; CONF; DC 24V; 6mm	B	B	A
0857-0810	Temperaturmessumformer TC; UI; DIP; DC 24V; 6mm	B	B	A
0857-0811	Temperaturmessumformer TC; UI; CONF; DC 24V; 6mm	B	B	A
0857-0818	Temperaturmessumformer Ni; UI; DIP; DC 24V; 6mm	B	B	A
0857-0819	Spannungsmessumformer U(BIP), UI; CONF; DC 24V; 6mm	B	B	A
0857-0820	Temperaturmessumformer KTY; UI; DIP; DC 24V; 6mm	B	B	A
0857-0955	Relais-Sicherungs-Modul DC 24V	B	A	B
0857-0956/0000-0020	Signalverteilermodul DC 24V; 20mA; 3x	B	A	B
0857-0979	Einspeise- und Durchgangsklemme	B	A	B
0857-0980	Interface Adapter analog	B	A	B
0857-0981	Interface Adapter IPS; DIN41651	B	A	B
0857-0982	Interface Adapter OPS; DIN41651	B	A	B
0857-0986	Interface Adapter IPS; Sub-D	B	A	B
0857-1430	Optokopplermodul 2x; DC 24V, DC 3-31,2V; 3A; 2W; YEL; 6mm	B	A	B
0857-1430/0001-0000	Optokopplermodul 2x; DC 24V, DC 3-31,2V; 3A; 2W; SP; YEL; 6mm	B	A	B
0857-1430/0002-0000	Optokopplermodul 2x; DC 24V, DC 3-31,2V; 3A; 2W; SP; YEL; 6mm	B	A	B
0858-0304	Relaismodul DC 24V; 4CO; 5A; MO; RED; 31mm	B	A	B
0858-0314	Relaismodul DC 24V; 4CO; 5A; AU; MO; RED; 31mm	B	A	B
0858-0508	Relaismodul AC 230V; 4CO; 5A; MO; RED; 31mm	B	A	B
0858-0518	Relaismodul AC 230V; 4CO; 5A; AU; MO; RED; 31mm	B	A	B
0859-0302	Relaismodul DC 5V; 1CO; 5A; RED; 6mm	B	A	B
0859-0303	Relaismodul DC 12V; 1CO; 5A; RED; 6mm	B	A	B

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0859-0304	Relaismodul DC 24V; 1CO; 5A; RED; 6mm	B	A	B
0859-0305	Relaismodul DC 48V; 1CO; 5A; RED; 6mm	B	A	B
0859-0306	Relaismodul DC 60V; 1CO; 5A; RED; 6mm	B	A	B
0859-0307	Relaismodul DC 110V; 1CO; 5A; RED; 6mm	B	A	B
0859-0308	Relaismodul DC 220V; 1CO; 5A; RED; 6mm	B	A	B
0859-0314	Relaismodul DC 24V; 1CO; 5A; AU; RED; 6mm	B	A	B
0859-0317	Relaismodul DC 110V; 1CO; 5A; AU; RW; RED; 6mm	B	A	B
0859-0318	Relaismodul DC 220V; 1CO; 5A; AU; RED; 6mm	B	A	B
0859-0353	Relaismodul AC/DC 12V; 1CO; 5A; RED; 6mm	B	A	B
0859-0354	Relaismodul AC/DC 24V; 1CO; 5A; RED; 6mm	B	A	B
0859-0355	Relaismodul AC/DC 48V; 1CO; 5A; RED; 6mm	B	A	B
0859-0356	Relaismodul AC/DC 60V; 1CO; 5A; RED; 6mm	B	A	B
0859-0357	Relaismodul AC/DC 115V; 1CO; 5A; RED; 6mm	B	A	B
0859-0358	Relaismodul AC/DC 230V; 1CO; 5A; RED; 6mm	B	A	B
0859-0359	Relaismodul AC/DC 230V; 1CO; 5A; AU; RED; 6mm	B	A	B
0859-0360	Relaismodul AC/DC 115V; 1CO; 5A; AU; RED; 6mm	B	A	B
0859-0367	Relaismodul AC 115V; 1CO; 5A; DEF; RED; 6mm	B	A	B
0859-0368	Relaismodul AC 230V; 1CO; 5A; DEF; RED; 6mm	B	A	B
0859-0390	Relaismodul DC 24V; 1CO; 5A; RW; RED; 6mm	B	A	B
0859-0391	Relaismodul DC 110V; 1CO; 5A; RW; RED; 6mm	B	A	B
0859-0392	Relaismodul DC 24V; 1CO; 3A; AU; RED; 6mm	B	A	B
0859-0397	Relaismodul DC 48V; 1CO; 3A; RW; RED; 6mm	B	A	B
0859-0398	Relaismodul DC 24V; 1CO; 3A; RW; RED; 6mm	B	A	B
0859-0399	Relaismodul DC 110V; 1CO; 3A; RW; RED; 6mm	B	A	B
8002-0004/K041-7767/0000-6601	Übergabemodul KS; 2x50P; 32DO; TBC-2D; FU; MC	D	A	B
8002-0004/K041-7767/0000-6701	Übergabemodul KS; 2x50P; 32DI; TBC-2D; FU; MC	D	A	B

Application/Limitation

The Type Approval covers hardware and Location class listed under Product description.

When the hardware is used in applications to be classed by DNVGL, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV GL RU SHIP Pt.4 Ch.9 Control and Monitoring Systems.

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Type Approval documentation

Test report: EK 0025/05; EK 0043_03; EMVP09_0198 (14.10.09); 15468; 15469; 15470; 9740; 16695; 20781; 21032, 19992 to 19995; EMVP10_0281; EMVP11_0170_V1; EMVP11_0437; EMVP11_0481; MC3353 GL Update 4462707HH Version 1.0; EMVP11_0289; EMVP09_0092; EMVP12_0058; EMVP10_0106; EMVP11_0089_GL, EMVP11_0327_GL_V1; EMVP11_0191_GL_V1; EMVP10_0154_GL_V2; EMVP12_0408; EMVP13_0208 (11.11.13); 16695 (25.06.07); 21321 (14.01.11); 20166 (12.04.10); 20169 (03.05.10); 20700 (09.06.10), 23662 (04.03.13)

Documents: Document List MC999999_Cert17_012, Rev. 1.0.

Tests carried out

Applicable tests according to Class Guideline DNVGL-CG-0339, Edition November 2016.

Marking of product

The products to be marked with:

- manufacturer name
- device name.

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.

END OF CERTIFICATE