

# TYPE APPROVAL CERTIFICATE

Certificate No:  
**TAA00001D1**  
Revision No:  
**5**

## This is to certify:

**That the Peripheral Equipment**

with type designation(s)  
**Series 287, 289, 787, 788, 789, 857, 858, 859, 8002x**

Issued to  
**WAGO GmbH & Co. KG**  
**Minden, Nordrhein-Westfalen, Germany**

is found to comply with  
**DNV 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.**

### Location classes

<b>Temperature</b>	<b>B/D *</b>
<b>Humidity</b>	<b>B</b>
<b>Vibration</b>	<b>A/B *</b>
<b>EMC</b>	<b>A/B *</b>
<b>Enclosure</b>	<b>A</b>

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

Issued at **Hamburg** on **2023-12-15**

for **DNV**

This Certificate is valid until **2027-11-14**.

DNV local unit: **Essen**

Approval Engineer: **Heinz Scheffler**

.....  
**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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



## Product description

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

### Product table

Item number	Designation	Temp	Vibr	EMC
287-474	Relay Modules 4x; DC 24V; 1NO; 16A	B	A	B
287-475	Relay Modules 4x; DC 24V; 1NO; 16A; LL	B	A	B
289-175	Interface module RJ-45; TBC 2-R; CAT5; MC; SSC	B	B	B
289-178	Interface module RJ-45; POW-CON; TBC; CAT5; MC; SSC; CS	B	B	B
289-369	Interface module KS; 2x40P; 16AI/AO; 2W; MC	D	A	B
289-545	Interface module Sub-D; MA; 9P; SC; VER; TBC 2-R; MC	B	B	B
289-556	Interface module Sub-D; FE; 15P; SC; VER; TBC 2-R; MC	B	B	B
289-575	Interface module Sub-D; FE; 9P; SC; VER; TBC 2-R; MC; SSC	B	B	B
289-745	Interface module HD-Sub-D; FE; 15P; SC; VER; TBC 2-D; MC	B	B	B
787-2861/050-000	Electronic circuit breaker 1CH; 24VDC; 0,5A	D	B	B
787-2861/100-000	Electronic circuit breaker 1CH; 24VDC; 1A	D	B	B
787-2861/108-020	Electronic circuit breaker 1CH; 24VDC; 1...8A	D	B	B
787-2861/000-000	Electronic circuit breaker 1CH; 24VDC; 2A	D	B	B
787-2861/400-000	Electronic circuit breaker 1CH; 24VDC; 4A	D	B	B
787-2861/600-000	Electronic circuit breaker 1CH; 24VDC; 6A	D	B	B
787-2861/800-000	Electronic circuit breaker 1CH; 24VDC; 8A	D	B	B
787-3861/004-020	Electronic circuit breaker 1CH; 24VDC; 0,5...4A	D	B	B
787-3861/004-1020	Electronic circuit breaker 1CH; 24VDC; 0,5...4 A; NEC Class 2	D	B	B
787-3861/050-000	Electronic circuit breaker 1CH; 24VDC; 0,5A	D	B	B
787-3861/050-1000	Electronic circuit breaker 1CH; 24VDC; 0,5A; NEC Class 2	D	B	B

Item number	Designation	Temp	Vibr	EMC
787-3861/100-000	Electronic circuit breaker 1CH; 24VDC;1A	D	B	B
787-3861/100-1000	Electronic circuit breaker 1CH; 24VDC;1A; NEC Class 2	D	B	B
787-3861/108-020	Electronic circuit breaker 1CH; 24VDC; 1...8A	D	B	B
787-3861/200-000	Electronic circuit breaker 1CH; 24VDC; 2A	D	B	B
787-3861/200-1000	Electronic circuit breaker 1CH; 24VDC; 2A; NEC Class 2	D	B	B
787-3861/400-000	Electronic circuit breaker 1CH; 24VDC; 4A	D	B	B
787-3861/400-1000	Electronic circuit breaker 1CH; 24VDC; 4A; NEC Class 2	D	B	B
787-3861/600-000	Electronic circuit breaker 1CH; 24VDC; 6A	D	B	B
787-3861/800-000	Electronic circuit breaker 1CH; 24VDC; 8A	D	B	B
788-303/003-000	Relay Modules DC 12V; 1CO; 16A; RED; 15mm	B	A	B
788-304/003-000	Relay Modules DC 24V; 1CO; 16A; RED; 15mm	B	A	B
788-307/003-000	Relay Modules DC 110V; 1CO; 16A; RED; 15mm	B	A	B
788-312/003-000	Relay Modules DC 24V; 2CO; 8A; RED; 15mm	B	A	B
788-354/003-000	Relay Modules DC 24V; 1CO; 16A; LL; RED; 15mm	B	A	B
788-404/003-000	Relay Modules DC 24V; 1CO; 16A; AU; RED; 15mm	B	A	B
788-506	Relay Modules AC 24V; 1CO; 16A; RED; 15mm	B	A	B
788-507	Relay Modules AC 115V; 1CO; 16A; RED; 15mm	B	A	B
788-508	Relay Modules AC 230V; 1CO; 16A; RED; 15mm	B	A	B
788-512	Relay Modules AC 24V; 2CO; 8A; RED; 15mm	B	A	B
788-515	Relay Modules AC 115V; 2CO; 8A; RED; 15mm	B	A	B
788-516	Relay Modules AC 230V; 2CO; 8A; RED; 15mm	B	A	B
788-528	Relay Modules AC 230V; 1CO; 16A; RED; 15mm	B	A	B

Item number	Designation	Temp	Vibr	EMC
788-538	Relay Modules AC 230V; 2CO; 8A; RED; 15mm	B	A	B
788-607	Relay Modules AC 115V; 1CO; 16A; AU; RED; 15mm	B	A	B
788-608	Relay Modules AC 230V; 1CO; 16A; AU; RED; 15mm	B	A	B
788-615	Relay Modules AC 115V; 2CO; 8A; AU; RED; 15mm	B	A	B
788-616	Relay Modules AC 230V; 2CO; 8A; AU; RED; 15mm	B	A	B
789-620	Current signal conditioner I 80A; MODBUS; DC 24V	B	B	B
857-304	Relay Modules DC 24V; 1CO; 6A; YEL; 6mm	B	A	B
857-314	Relay Modules DC 24V; 1CO; 6A; AU; YEL; 6mm	B	A	B
857-358	Relay Modules AC/DC 230V; 1CO; 6A; YEL; 6mm	B	A	B
857-368	Relay Modules AC/DC 230V; 1CO; 6A; AU; YEL; 6mm	B	A	B
857-399	Relay Modules DC 24V; 1CO; 6A; YEL; 6mm	B	A	B
857-400	Signal conditioner, Isolation amplifier UI; UI; ZERO/SPAN; DIP; DC 24V; 6mm	B	B	B
857-401	Signal conditioner, Isolation amplifier UI; UI; DO; CONF; DC 24V; 6mm	B	B	A
857-409	Signal conditioner, Isolation amplifier UI(BIP); UI(BIP); ZERO/SPAN; DIP; DC24V; 6mm	B	B	A
857-411	Signal conditioner, Isolation amplifier I 0-20mA; I 0-20mA; DC 24V; 6mm	B	B	B
857-412	Signal conditioner, Isolation amplifier U 0-10V; U 0-10V; DC 24V; 6mm	B	B	B
857-413	Signal conditioner, Isolation amplifier U 0-10V; I 0-20mA; DC 24V; 6mm	B	B	B
857-414	Signal conditioner, Isolation amplifier U 0-10V; I 4-20mA; DC 24V; 6mm	B	B	B
857-415	Signal conditioner, Isolation amplifier I 0-20mA; U 0-10V; DC 24V; 6mm	B	B	B
857-416	Signal conditioner, Isolation amplifier I 4-20mA; U 0-10V; DC 24V; 6mm	B	B	B
857-420	Signal conditioner, Repeater power supply, configurable, with current and voltage output	D	B	A
857-423	Signal conditioner, Isolation amplifier UI; 2I; DIP; DC 24V; 6mm	B	B	A

Item number	Designation	Temp	Vibr	EMC
857-451	Passive isolator 1-CH; I; I; PVI; 6mm	B	B	B
857-452	Passive isolator 2-CH; I; 2I; PVI; 6mm	B	B	B
857-531	Threshold value switch ANALOG; REL/1CO; DO; CONF; DC 24V; 6mm	B	B	A
857-550	Current signal conditioner I 5A; UI; DO; CONF; DC 24V; 6mm	B	B	A
857-724	SSR-Module DC 24V; DC 0-24V; 3A; 2W; YEL; 6mm	B	A	B
857-800	Signal conditioner, Temperature PT; UI; DIP; DC 24V; 6mm	B	B	A
857-801	Signal conditioner, Temperature PT; UI; CONF; DC 24V; 6mm	B	B	A
857-808	Signal conditioner, Temperature PT46; UI; DIP; DC 24V; 6mm	B	B	A
857-809	Signal conditioner, Potentiometer UI; DO; CONF; DC 24V; 6mm	B	B	A
857-810	Signal conditioner, Temperature TC; UI; DIP; DC 24V; 6mm	B	B	A
857-811	Signal conditioner, Temperature TC; UI; CONF; DC 24V; 6mm	B	B	A
857-818	Signal conditioner, Temperature Ni; UI; DIP; DC 24V; 6mm	B	B	A
857-819	Signal conditioner, Millivolt U(BIP), UI; CONF; DC 24V; 6mm	B	B	A
857-820	Signal conditioner, Temperature KTY; UI; DIP; DC 24V; 6mm	B	B	A
857-955	Relay fuse module DC 24V	B	A	B
857-956/000-020	Signal distributor module DC 24V; 20mA; 3x	B	A	B
857-979	Supply and Through module	B	A	B
857-980	Interface Adapter analog	B	A	B
857-981	Interface Adapter IPS; DIN41651	B	A	B
857-982	Interface Adapter OPS; DIN41651	B	A	B
857-986	Interface Adapter IPS; Sub-D	B	A	B
857-1430	Optocoupler module 2x; DC 24V, DC 3-31,2V; 3A; 2W; YEL; 6mm	B	A	B

Item number	Designation	Temp	Vibr	EMC
857-1430/001-000	Optocoupler module 2x; DC 24V, DC 3-31,2V; 3A; 2W; SP; YEL; 6mm	B	A	B
857-1430/002-000	Optocoupler module 2x; DC 24V, DC 3-31,2V; 3A; 2W; SP; YEL; 6mm	B	A	B
858-304	Relay Modules DC 24V; 4CO; 5A; MO; RED; 31mm	B	A	B
858-314	Relay Modules DC 24V; 4CO; 5A; AU; MO; RED; 31mm	B	A	B
858-508	Relay Modules AC 230V; 4CO; 5A; MO; RED; 31mm	B	A	B
858-518	Relay Modules AC 230V; 4CO; 5A; AU; MO; RED; 31mm	B	A	B
859-302	Relay Modules DC 5V; 1CO; 5A; RED; 6mm	B	A	B
859-303	Relay Modules DC 12V; 1CO; 5A; RED; 6mm	B	A	B
859-304	Relay Modules DC 24V; 1CO; 5A; RED; 6mm	B	A	B
859-305	Relay Modules DC 48V; 1CO; 5A; RED; 6mm	B	A	B
859-306	Relay Modules DC 60V; 1CO; 5A; RED; 6mm	B	A	B
859-307	Relay Modules DC 110V; 1CO; 5A; RED; 6mm	B	A	B
859-308	Relay Modules DC 220V; 1CO; 5A; RED; 6mm	B	A	B
859-314	Relay Modules DC 24V; 1CO; 5A; AU; RED; 6mm	B	A	B
859-317	Relay Modules DC 110V; 1CO; 5A; AU; RW; RED; 6mm	B	A	B
859-318	Relay Modules DC 220V; 1CO; 5A; AU; RED; 6mm	B	A	B
859-353	Relay Modules AC/DC 12V; 1CO; 5A; RED; 6mm	B	A	B
859-354	Relay Modules AC/DC 24V; 1CO; 5A; RED; 6mm	B	A	B
859-355	Relay Modules AC/DC 48V; 1CO; 5A; RED; 6mm	B	A	B
859-356	Relay Modules AC/DC 60V; 1CO; 5A; RED; 6mm	B	A	B
859-357	Relay Modules AC/DC 115V; 1CO; 5A; RED; 6mm	B	A	B
859-358	Relay Modules AC/DC 230V; 1CO; 5A; RED; 6mm	B	A	B

Item number	Designation	Temp	Vibr	EMC
859-359	Relay Modules AC/DC 230V; 1CO; 5A; AU; RED; 6mm	B	A	B
859-360	Relay Modules AC/DC 115V; 1CO; 5A; AU; RED; 6mm	B	A	B
859-367	Relay Modules AC 115V; 1CO; 5A; DEF; RED; 6mm	B	A	B
859-368	Relay Modules AC 230V; 1CO; 5A; DEF; RED; 6mm	B	A	B
859-390	Relay Modules DC 24V; 1CO; 5A; RW; RED; 6mm	B	A	B
859-391	Relay Modules DC 110V; 1CO; 5A; RW; RED; 6mm	B	A	B
859-392	Relay Modules DC 24V; 1CO; 3A; AU; RED; 6mm	B	A	B
859-397	Relay Modules DC 48V; 1CO; 3A; RW; RED; 6mm	B	A	B
859-398	Relay Modules DC 24V; 1CO; 3A; RW; RED; 6mm	B	A	B
859-399	Relay Modules DC 110V; 1CO; 3A; RW; RED; 6mm	B	A	B
8002-0004/K040-6634/0001-7001	Interface module KS; 2x50P; 16DO; DTB; FU; MC	D	A	B
8002-0004/K041-7767/0000-2703	Interface module KS; 2x50P; 16RTD; TBC; MC	D	A	B
8002-0004/K041-7767/0000-6601	Interface module KS; 2x50P; 32DO; TBC-2D; FU; MC	D	A	B
8002-0004/K041-7767/0000-6701	Interface module KS; 2x50P; 32DI; TBC-2D; FU; MC	D	A	B
8002-099/000-129	Interface module KS; 2x50P; 32DI; TBC-2D; MC	D	A	B
8002-099/000-130	Interface module KS; 2x50P; 32DO; TBC-2D; FU; MC	D	A	B
8002-099/000-137	Interface module KS; 2x50P; 32DO; TBC-2D; FU; MC	D	A	B

### **Application/Limitation**

The Type Approval covers hardware and specific location classes also are listed under Product description. When the hardware is used in applications to be classed by DNV, 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 RU SHIP Pt.4 Ch.9 Control and Monitoring Systems.

The product insert is to be observed regarding the power supply for 0787-2861/xxxx-xxxx series.

The Operating and Assembly instructions are to be observed in general.

### **Type Approval documentation**

Test report and Documents: TAA00001D1\_Test\_Report\_and\_Document\_List\_Rev5

### **Tests carried out**

Applicable tests according to Class Guideline DNV-CG-0339, Edition August 2021.

### **Marking of product**

The products to be marked with:

- Model name
- Manufacturer name
- Serial number

### **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