

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Peripheral Equipment**

with type designation(s)
WAGO I/O-System 750/753

Issued to

WAGO Kontakttechnik GmbH & Co. KG
Minden, Germany

is found to comply with
DNV GL rules for classification – Ships

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Location classes are specified in the product table on the next pages:

Temperature B / D*
Humidity A / B*
Vibration B*
EMC A / B*
Enclosure A

This Certificate is valid until .

Issued at **Hamburg** on **2017-02-10**

DNV GL local station: **Magdeburg**

for **DNV GL**

Approval Engineer: **Klaus-Peter Schröder**

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Duy Nam Le
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

WAGO I/O-System including the following list of modules

Temperature: B (Cold test with 0°C / 16h)

EMC: A/B* (depending on the combination Filter Module and DC/DC Converter, see manual 753-647)

Type	Modul description	SW	HW	Tem	Hum	Vibr	EMC
0750-0450	4AI RTD / adj.	01	01	B	A	B	B
0750-0451	8AI RTD / adj.	01	01	B	A	B	B
0750-0458	8AI Thermo / Diagn. / adj.	01	01	B	A	B	B
0750-0486	4AI 0/4-20mA Ex i	01	01	B	A	B	B
0750-0494	3-Phase Power Measurement 480V/1A	01	02	B	A	B	B
0750-0494/0000-0001	3-Phase Power Measurement 480V/5A	01	02	B	A	B	B
0750-0494/0000-0005	PoM 277V AC/DC Shunt	01	01	B	A	B	B
0750-0495	3-Phase Power Measurement 690V/1A	02	02	B	A	B	B
0750-0495/0000-0001	3-Phase Power Measurement 690V/5A	02	02	B	A	B	B
0750-0495/0000-0002	3-Phase Power Measurement 690V/Rog.	02	02	B	A	B	B
0750-0496	8AI 0-20mA / 4-20mA S.E.	01	01	B	A	B	B
0750-0497	8AI 0-10V/+ -10V S.E.	01	01	B	A	B	B
0750-0831	BACnet/ IP Controller	01	01	B	A	B	B
0750-0838/0020-0000	CANopen Controller	17	06	B		B	B
0750-0838/0021-0000	CANopen Controller	17	06	B		B	B
0750-0889	Controller KNX IP with SD-card	01	01	B		B	B
0750-8100	PFC100 CS 2ETH ECO	02	03	B		B	B
0750-8101	PFC100 CS 2ETH	02	03	B		B	B
0750-8102	PFC100 CS 2ETH RS	02	04	B		B	B
0753-0620	DALI Multi Master DC/DC Converter	--	01	B	A	B	A/B*
0753-0647	DALI Multi Master Module	01	02	B	A	B	A/B*

Temperature: B* (Cold test with -20°C / 16h)

0750-0494/0025-0000	3-Phase Power Measurement 480V/1A/T	01	02	B*	A	B	B
0750-0494/0025-0001	3-Phase Power Measurement 480V/5A/T	01	02	B*	A	B	B
0750-8101/0025-0000	PFC100 CS 2ETH/T	02	02	B*	A	B	B
0750-8102/0025-0000	PFC100 CS 2ETH RS/T	02	03	B*	A	B	B
0750-8202/0025-0000	PFC200 CS 2ETH RS/T	04	03	B*	A	B	B
0750-8203/0025-0000	PFC200 CS 2ETH CAN/ T	04	01	B*	A	B	B
0750-8204/0025-0000	PFC200 CS 2ETH RS CAN/ T	04	01	B*	A	B	B
0750-8206/0025-0000	PFC200 CS 2ETH RS CAN DPS/ T	04	01	B*	A	B	B
0750-8206/0025-0001	PFC200 CS 2ETH RSCAN DPS TELE/T	03	01	B*	A	B	B

Temperature: D* (Cold test with -40°C / 16h)

Vibration: B* (Vibration test with acceleration amplitude 5.0g)

0750-0427/0040-0000	2DI 110V DC 3.0ms / XTR	--	01	D*	B	B*	B
0750-0429/0040-0001	2DI 60V DC 3.0ms / XTR	--	01	D*	B	B*	B
0750-0492/0040-0001	2AI 0-22mA Differential Input/ XTR	04	01	D*	B	B*	B
0750-0495/0040-0000	3-Phase POM 690V/ 1A /XTR	02	01	D*	B	B*	B
0750-0495/0040-0001	3-Phase POM 690V/ 5A /XTR	02	01	D*	B	B*	B
0750-0495/0040-0002	3-Phase POM 690V/ R.C. /XTR	02	01	D*	B	B*	B
0750-0616/0040-0000	Distance Module /XTR	--	01	D*	B	B*	B
0750-1416/0040-0000	8DI 24V DC 0.2ms/ 2-wire /T	--	01	D*	B	B*	B
0750-8202/0040-0000	PFC200 CS 2ETH RS/XTR	02	01	D*	B	B*	B
0750-8202/0040-0001	PFC200 CS 2ETH RS TELE /XTR	02	01	D*	B	B*	B
0750-8206/0040-0000	PFC200 CS 2ETH RS /XTR	02	01	D*	B	B*	B
0750-8206/0040-0001	PFC200 CS 2ETH RS TELE /XTR	02	01	D*	B	B*	B

Application/Limitation

Job Id: **262.1-020319-1**
Certificate No: **TAA00000Y7**

The Type Approval covers hardware listed under Product description.
When the hardware is used in applications to be classed by DNV GL, 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 Sec. 1.

For the power supply concept the supplementary power supply regulations according to the manuals must be observed.

For vibration loads > 4g the installation instructions according to the manuals must be observed.

Type Approval documentation

Tests carried out

Applicable tests according to Class Guideline DNVGL-CG-0339, Edition November 2015.

Ex-certification is not covered by this certificate. Application in hazardous area to be approved in each case according to the Rules and Ex-Certification/ Special Condition for Safe Use listed in valid Excertificate issued by a notified/recognized Certification Body.

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 at least every second year and at renewal of this certificate.
END OF CERTIFICATE