



# NIPPON KAIJI KYOKAI

## TYPE APPROVAL CERTIFICATE FOR AUTOMATIC DEVICES AND EQUIPMENT

Certificate No. TA12716M

**This is to certify** that the undernoted product(s) has/have been approved in accordance with the requirements specified in Chapter 1, Part 7 of "Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use" and the relevant Society's Rules.

This certificate is issued to

Applicant:	<b>WAGO Co, of Japan Ltd.</b>
Manufacturer:	<b>WAGO Kontakttechnik GmbH &amp; Co. KG</b>
Place of Manufacturing:	<b>Hansastr. 32423 Minden, Germany</b>
Product description:	<b>WAGO I/O System</b>
Model:	<b>750, 753, 758, 759, 762, 787, 788, 857, 858, 859 Series</b>
Approval No.:	<b>06A019</b>
Valid until:	<b>30 April 2017</b>

This certificate is subject to the conditions specified in the attached sheet(s).

Issued at Tokyo on 1 May 2012.

T. Narisawa  
General Manager  
Machinery Department

Note: The manufacturer, if desired, is requested to apply to the Society for renewal prior to the expiration date.

**Specification & documents:**

1. Particulars: Power supply: AC230V, DC24V

2. Components and reference drawings:

(1) Fieldbus Coupler:

750-303/...-...: Profibus DP/ FMS 12MB

750-306/...-...: DeviceNet, 125-500KB

750-312/...-...: Modbus, RS485 / 0.15-19.2KB

750-314/...-...: Modbus, RS232 / 0.15-19.2KB

750-315/...-...: Modbus, RS485 / 1.2-115.2KB

750-316/...-...: Modbus, RS232 / 1.2-115.2KB

750-323/...-...: Profibus DP / 12MB / Econ

750-327/...-...: CANopen, 10KB-1MB / Econ

750-333/...-...: Profibus DP / V1 / 12MB

750-337/...-...: CANopen, 10KB-1MB

750-338: CANopen D-sub

750-341/...-...: Ethernet, 100 Mbit/s

750-342/...-...: Ethernet TCP/IP, 10MB

750-352: Ethernet-Coupler

750-343: Profibus DP ECO 12MB

750-347: CANopen ECO MSS

750-348: CANopen ECO D-Sub

(2) Analog Input Module

750-452/...-...: 2AI, 0-20mA, differential

750-453/...-...: 4AI, 0-20mA, s.e.

750-454/...-...: 2AI, 4-20mA, differential

750-455/...-...: 4AI, 4-20mA, s.e.

750-456/...-...: 2AI, +/-10V, differential inputs

750-457/...-...: 4AI, +/-10V, s.e.

750-459/...-...: 4AI, 0-10V, s.e.

750-461/...-...: 2AI, Pt100/RTD/status

750-462/...-...: 2AI, Thermocouple/ diagn.

750-464: 2/4AI, RTD free configurable

750-464/020-000: 4AI, NTC free configurable

750-470/...-...: 2AI, 0-20mA, 16 Bit, s.e.

750-470/005-000: 2AI, 0-20mA, s.e., s.c.p., 60Hz

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Attached sheet -2/11 to the Certificate No.TA12716M

750-472/...-....: 2AI, 0-20mA, 16 Bit, s.e.  
750-473/...-....: 2AI, 4-20mA, s.e., s.c.p.  
750-473/005-000: 2AI, 4-20mA, s.e., s.c.p., 60Hz  
750-474/...-....: 2AI, 4-20mA, 16 Bit, s.e.  
750-475: 2AI, 0-10A AC/DC  
750-475/020-000: 2AI, 0-5A AC/DC  
750-476/...-....: 2AI, +/-10V, 16 Bit, s.e.  
750-478/...-....: 2AI, 0-10V, 16 Bit, s.e.  
750-479/...-....: 2AI, +/-10V  
750-481/003-000: 2AI, RTD Ex i  
750-483/...-....: 2AI, 0-30V  
750-484: 2AI, 4-20mA S.E. HART Ex i  
750-485/...-....: 2AI, 4-20mA, Ex i  
750-487/003-000: 2AI, TC Ex i

### (3) Analog Output Module

750-550/...-....: 2AO, 0-10V DC, 12 Bit  
750-552/...-....: 2AO, 0-20mA, 12 Bit  
750-553/...-....: 4AO, 0-20mA, 12 Bit  
750-554/...-....: 2AO, 4-20mA, 12 Bit  
750-555/...-....: 4AO, 4-20mA, 12 Bit  
750-556/...-....: 2AO, +/-10V DC, 12 Bit  
750-557/...-....: 4AO, +/-10V DC, 12 Bit  
750-559/...-....: 4AO, 0-10V DC, 12 Bit  
750-585/...-....: 2AO, 0-20mA, Ex i

### (4) Digital Input Module

750-400: 2DI, 24V DC, 3.0ms  
750-401: 2DI, 24V DC, 0.2ms  
750-402: 4DI, 24V DC, 3.0ms  
750-403: 4DI, 24V DC, 0.2ms  
750-405: 2DI, 230V AC, 10ms  
750-406: 2DI, 120V AC, 10ms  
750-408: 4DI, 24V DC, 3.0ms, lss  
750-410: 2DI, 24V DC, 3.0ms, prox. Switch  
750-411: 2DI, 24V DC, 0.2ms, prox. Switch  
750-415: 4DI, 24V AC/DC, 20ms

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Attached sheet -3/11 to the Certificate No.TA12716M

750-418: 2DI, 24V DC, 3.0ms, diag., reset  
750-419: 2DI, 24V DC, 3.0ms, diag.  
750-421: 2DI, 24V DC, 3.0ms, diag.  
750-423: 4DI, 24V AC/DC, 50ms  
750-424: 2DI, wirebreak detec., 24V DC  
750-425: 2DI, Namur  
750-430: 8DI, 24V DC, 3.0ms  
750-431: 8DI, 24V DC, 0.2ms  
750-432: 4DI, 24V DC, 3.0ms  
750-433: 4DI, 24V DC, 0.2ms  
750-435: 1DI, Namur Ex i  
750-436: 8DI, 24V DC, 3.0ms  
750-437: 8DI, 24V DC, 0.2ms  
750-438: 2DI, Namur Ex i  
750-1400: 16DI, 24V DC, 3.0ms, ribbon cable  
750-1402: 16DI, 24V DC, 3.0ms, ribbon cable / lss  
750-1405: 16DI, 24V DC, 3.0ms  
750-1406: 16DI, 24V DC, 0.2ms  
750-1407: 16DI, 24V DC, 3.0ms / lss  
750-1415: 8DI, 24V DC, 3.0ms  
750-1416: 8DI, 24V DC, 0.2ms  
750-1417: 8DI, 24V DC, 3.0ms / lss  
750-1418: 8DI, 24V DC, 0.2ms / lss  
750-1420: 4DI, 24V DC, 3.0ms  
750-1421: 4DI, 24V DC, 0.2ms  
750-1422: 4DI, 24V DC, 3.0ms / lss  
750-1423: 4DI, 24V DC, 0.2ms / lss

(5) Digital Output Module

750-501: 2DO, 24V DC, 0.5A, s.c.p.  
750-502: 2DO, 24V DC, 2A, s.c.p.  
750-504: 4DO, 24V DC, 0.5A, s.c.p.  
750-507: 2DO, 24V DC  
750-508: 2DO, 24V DC, 2A  
750-509: 2DO, 230V AC, 0.3A, solid-state relay  
750-512: 2DO, 250V AC, 2A, 2NO common point  
750-513: 2DO, 250V AC, 2A, 2NO potential free

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Attached sheet -4/11 to the Certificate No.TA12716M

750-514: 2DO, 125V AC  
750-516: 4DO, 24V DC  
750-517: 2DO, 250V AC, 1A, 2CO potential free  
750-523: 1DO, 230V AC, 16A  
750-530: 8DO, 24V DC, 0.5A  
750-531: 4DO, 24V DC, 0.5A, 2-wire  
750-532: 4DO, 24V DC, 0.5A  
750-535: 2DO, 24V DC, Ex i  
750-536: 8DO, 24V DC, 0.5A  
750-537: 8DO, 24V DC, 0.5A, diagnostic  
750-1500: 16DO, 24V DC, 0.5A, ribbon cable  
750-1501: 16DO, 24V DC, 0.5A, ribbon cable / lss  
750-1502: 8DI / 8DO, 24V DC, 0.5A, ribbon cable  
750-1504: 16DO, 24V DC, 0.5A  
750-1505: 16DO, 24V DC, 0.5A, lss  
750-1506: 8DI / 8DO, 24V DC, 0.5A  
750-1515: 8DO, 24V DC, 0.5A  
750-1516: 8DO, 24V DC, 0.5A / lss

### (6) Power Supply Module

750-601: 24V DC, fuse  
750-602: 24V DC  
750-609: 230V AC, fuse  
750-610: 24V DC, fuse, diag.  
750-611: 230V AC, fuse, diag.  
750-612: 0-230V AC/DC, passive  
750-613: Bus, 24V DC, 5V DC, 2A  
750-625: 24V DC, Ex i  
787-913: 230V AC/ 24V DC 5A

### (7) Special Module

750-404/...-...: Up/Down Counter 24V DC 100kHz  
750-600: End Module  
750-606: 24V DC 1.0A power supply Ex i  
750-608: Trimmer Module, 1K ohm, +/-12V DC  
750-614: Potential Multiplication  
750-616: Separation Module

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## NIPPON KAIJI KYOKAI

Attached sheet -5/11 to the Certificate No.TA12716M

750-623: Supply Module DC 24V/5-15V  
750-624: Field Supply Filter, 24V DC  
750-624/020-000 Field Supply Filter, 24V DC, high isolation  
750-625/000-001 24V DC 1.0A power supply Ex i (without diagnostic)  
750-626: Power Supply Filter (Surge), 24V DC  
750-626/020-000 Power Supply Filter, 24V DC, high isolation  
750-637: Incremental encoder interface, 32 Bit  
750-654/...-...: Data Exchange  
750-1605: Potential Multiplication 16+ 24V DC  
750-1606: Potential Multiplication 16- 0V DC  
750-1607: Potential Multiplication 8+/8- 24V DC / 0V DC

### (8) Interface Module

750-641: DALI/DSI Master Module  
750-650...-...: Serial, RS232 C  
750-651...-...: TTY, 20mA Current Loop  
750-652: RS-232/RS-485 free configurable  
750-652/025-000: RS-232/RS485vfree configurable/T  
750-653...-...: Serial, RS485  
750-655: AS-Interface Manter  
753-646: KNX/EIB/TP1 Interface

### (9) Fieldbus Controller

750-806/...-...: DeviceNet, 125-500KB  
750-812/...-...: Modbus, RS485/ 0.15-19.2KB  
750-814/...-...: Modbus, RS232/ 0.15-19.2KB  
750-815/...-...: Modbus, RS485/ 1.2-115.2KB  
750-816/...-...: Modbus, RS232/ 1.2-115.2KB  
750-830: BACnet/IP Controller  
750-833: Profibus DP, V1/ 12MB  
750-837/...-...: CANopen, 10KB-1MB  
750-838: CANopen Fieldbus Controller D-Sub  
750-841/...-...: Ethernet, 100Mbit/s  
750-842/...-...: Ethernet TCP/IP, 10MB  
750-843: Ethernet-Controller 10Mbit/s  
750-871: Ethernet TCP/IP 2 Port Controller  
750-873: Ethernet TCP/IP & RS232 Controller

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Attached sheet -6/11 to the Certificate No.TA12716M

750-880: Ethernet-Controller

750-880/025-000: Ethernet-Controller/T

750-881: Ethernet-Controller

750-882: Ethernet-MR-Controller

(10) Relay socket with relay and status indication

788-303/0003-0000: DC12V, 1CO

788-304/0003-0000: DC24V, 1CO

788-307/0003-0000: DC110V, 1CO

788-312/0003-0000: DC24V, 1CO

788-323/0003-0000: DC24V, 1CO

788-324/0003-0000: DC110V, 1CO

788-334/0003-0000: DC24V, 1CO

788-337/0003-0000: DC110V, 1CO

788-354/0003-0000: DC24V, 1CO

788-355/0003-0000: DC24V, 1CO

788-404/0003-0000: DC24V, 1CO (Au)

788-506: AC24V, 1CO

788-507: AC115V, 1CO

788-508: AC230V, 1CO

788-512: AC24V, 2CO

788-515: AC115V, 2CO

788-516: AC230V, 2CO

788-528: AC230V, 1CO

788-538: AC230V, 2CO

788-607: AC115V, 1CO (Au)

788-608: AC230V, 1CO (Au)

788-615: AC115V, 2CO (Au)

788-616: AC230V, 2CO (Au)

(11) Isolation amplifier and transducer

857-400: Isolation amplifier with zero / span adjustment

857-411: Isolation amplifier, preset for current signals

857-412: Isolation amplifier, preset for voltage signals

857-413: Isolation amplifier, preset for analog signals

857-414: Isolation amplifier, preset for analog signals

857-415: Isolation amplifier, preset for analog signals

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Attached sheet -7/11 to the Certificate No.TA12716M

857-416: Isolation amplifier, preset for analog signals  
857-423: Signal splitter with 2 configurable current outputs  
857-451: Passive isolator, 1 channel  
857-452: passive isolator, 2 channel  
857-531: Threshold Value Switch  
857-800: Temperature Transducer for RTD-sensors as well as resistors  
857-801: Temperature Transducer for RTD-sensors as well as resistors  
857-810: Temperature Transducer for thermocouples type J and K  
857-811: Temperature Transducer for thermocouples type J and K  
857-819: Millivolt Transducer

(12) Relay socket with miniature switching relay

857-304: DC24V, 1CO  
857-314: DC24V, 1CO (Au)  
857-358: AC/DC 230V, 1CO  
857-368: AC/DC 230V, 1CO (Au)

(13) Relay socket with optocoupler

857-724: DC24V

(14) Relay socket for industrial relay

858-304: DC24V, 4CO  
858-314: DC24V, 4CO (Au)  
858-508: AC/DC 230V, 4CO  
858-518: AC/DC 230V, 4CO (Au)

(15) Switching relay terminal block with miniature switching relay

859-302: DC5V, 1CO  
859-303: DC12V, 1CO  
859-304: DC24V, 1CO  
859-305: DC48V, 1CO  
859-306: DC60V, 1CO  
859-307: DC120V, 1CO  
859-308: DC230V, 1CO  
859-314: DC24V, 1CO (Au)  
859-317: DC110V, 1CO (Au)  
859-318: DC220V, 1CO (Au)

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Attached sheet -8/11 to the Certificate No.TA12716M

859-353: AC/DC12V, 1COÜ

859-354: AC/DC24V, 1CO

859-355: AC/DC48V, 1CO

859-356: AC/DC60V, 1CO

859-357: AC/DC115V, 1CO

859-358: AC/DC230V, 1CO

859-359: AC230V, 1CO (Au)

859-360: AC115V, 1CO (Au)

859-367: AC115V, 1CO

859-368: AC230V, 1CO

859-390: DC24V, 1CO

859-391: DC110V, 1CO

859-392: DC24V, 1CO

859-397: DC48V, 1CO

859-398: DC24V, 1CO

859-399: DC110V, 1CO

(16) Overvoltage protection

859-890: DC24V

(17) Control Panel with Target Visualisation

762-3035/000-001: Control Panel CP 35 QVGA TV

(18) Industrial Compact PC

758-870-000-110: I/O-IPC-G2 Linux 2.6 CoDeSys Visu without Fieldbus

758-870-000-111: I/O-IPC-G2 Linux 2.6 CoDeSys Visu PROFIBUS DB Master

758-870-000-114: I/O-IPC-G2 Linux 2.6 CoDeSys Visu PROFIBUS DP Slave

758-870-000-310: I/O-IPC-G2 Linux 2.6 without Fieldbus

758-870-000-311: I/O-IPC-G2 Linux 2.6 PROFIBUS DB Master

758-870-000-314: I/O-IPC-G2 Linux 2.6 PROFIBUS DP Slave

758-875-000-010: I/O-IPC-C10 E Linux 2.6 without Fieldbus

758-875-000-011: I/O-IPC-C10 E Linux 2.6 PROFIBUS DP Master

758-875-000-012: I/O-IPC-C10 E Linux 2.6 CANopen Master

758-875-000-110: I/O-IPC-C10 E Linux 2.6 CoDeSys Visu

758-875-000-111: I/O-IPC-C10 E Linux 2.6 CoDeSys Visu PROFIBUS DP Master

758-875-000-112: I/O-IPC-C10 E Linux 2.6 CoDeSys Visu CANopen Master

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Attached sheet -9/11 to the Certificate No.TA12716M

### (19) Accessories

750-960: Profibus connector, D-Sub male

750-963: CANopen connector

750-970: Profibus connector, D-Sub male & female

750-975: Ethernet connector

758-879/000-001: SD Memory Card

### (20) Programming Software

759-332: WAGO-I/O-Pro 32

759-333: WAGO-I/O-Pro CAA

### 3. Documentation and Test Reports:

Full Line Catalog of WAGO AUTOMATION, Volume 3 Edition: 2012/2013

Manual 762-3035/000-001 (V1.0.0), 758-870/000-110 (V2.0.0), 758-870/000-111 (V2.0.0),

758-870/000-112 (V2.0.0), 758-875/000-110 (V2.0.0), 758-875/000-111 (V2.0.0),

758-875/000-112 (V2.0.0)

Ex Certificate of TÜV 07 ATEX 554086 X (2008-05-15) (for Ex version the safety technical values specified in the Ex-proof certificate to be observed)

EMV Test Report No. 00 / 0206-1 (Dec. 29, 00)

EMV Test Report No. 00 / 0206-2 (Dec. 29, 00)

EMV Test Report No. 00 / 0206-3 (Dec. 29, 00)

EMV Test Report No. 00 / 0206-4 (Dec. 29, 00)

EMV Test Report No. 01 / 0206-5 (Jun. 21, 01)

EMV Test Report No. 08 / 8008-1 (May 09, 08)

WAGO Test Report No. EMVP06\_0412 (21.06.2007)

WAGO Test Report No. EMVP08\_0479 (05.12.2008)

WAGO Test Report No. EMVP08\_0139 (12.12.2008)

WAGO Test Report No. EMVP08\_0385\_1\_EN (27.10.2008)

WAGO Test Report No. EMVP08\_0417 (12.12.2008)

WAGO Test Report No. EMVP09\_0198 (14.10.2009)

WAGO Test Report No. EMVP09\_0280 (08.09.2009)

WAGO Test Report No. EMVP09\_0280\_V1 (08.09.2009)

WAGO Test Report No. EMVP09\_0640 (22.10.2010)

WAGO Test Report No. EMVP10\_0281 (15.02.2011)

WAGO Test Report No. EMVP10\_0366\_V2 (15.03.2011)

WAGO Test Report No. EMVP11\_0170\_V1 (06.07.2011)

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Attached sheet -10/11 to the Certificate No.TA12716M

WAGO Test Report No. EK 0005\_05 (14.09.05)  
WAGO Test Report No. EK 0007\_2\_05 (15.02.06)  
WAGO Test Report No. EK 0016\_1/00 (06.10.00)  
WAGO Test Report No. EK 0027\_3\_05 (06.12.2005)  
WAGO Test Report No. EK 0016\_2/00 (06.10.00)  
WAGO Test Report No. EK 0027\_2\_05 (06.12.2005)  
WAGO Test Report No. EK 0016\_3/00 (06.10.00)  
WAGO Test Report No. EK 0027\_5\_05 (06.12.2005)  
WAGO Test Report No. EK 0016\_4/00 (06.10.00)  
WAGO Test Report No. EK 0027\_1\_05 (06.12.2005)  
WAGO Test Report No. EK 0016\_5/00 (06.10.00)  
WAGO Test Report No. EK 0027\_4\_05 (06.12.2005)  
WAGO Test Report No. EK 0016\_05 (21.06.2006)  
WAGO Test Report No. EK 0021\_04 (05.11.04)  
WAGO Test Report No. EK 0025\_05 (29.01.07)  
WAGO Test Report No. EK 0025\_05 (15.06.2007) (EMC)  
WAGO Test Report No. EK 0051\_03\_02 (03.08.04)  
WAGO Test Report No. EK 0054\_03 (06.11.03)

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Attached sheet -11/11 to the Certificate No. TA12716M

**Test items & approval conditions:**

1. Test items:

(Applied testing items are marked with X.)

ENVIRONMENTAL TESTS		Mark
External examination		X
Operation test and performance test		X
Electric power supply failure test		X
Power supply fluctuation test	Electric	X
	Pneumatic and Hydraulic	--
Insulation resistance test		X
High voltage test		X
Pressure test (Pneumatic and Hydraulic)		--
Dry heat test (Temperature 70°C × 16 hours)		X
Damp heat test		X
Vibration test (Acceleration ±4g × 1.5 hours)		X
Inclination test		--
Cold test (Temperature 3°C × 2 hours) Note (1)		X
Salt mist test		--
Electrostatic discharge immunity test		X
Radiated radio frequency immunity test		X
Conducted low frequency immunity test		X
Conducted high frequency immunity test		X
Burst / Fast transient immunity test		X
Surge immunity test		X
Radiated emission test		X
Conducted emission test		X
Flame retardant test		X

Note (1) : 788,857,858,859 series are tested by -25°C × 16 hours.

2. Approval condition:

- (1) 750-343, 750-347, 750-348, 857-423, 857-531, 857-531, 857-800, 857-801, 857-810, 857-811, 857-819 are not allowed to be installed in the bridge and on open deck.
- (2) Other product is not allowed to be installed on open deck.

- The End -