



TYPE APPROVAL CERTIFICATE

Certificate No:
TAA00001T2
Revision No:
1

This is to certify:

That the Peripheral Equipment

with type designation(s)

Temperature Transmitters JUMO dTRANS T08 XX and Signal/Isolating Converters JUMO dTRANS S08 XX

Issued to

JUMO GmbH & Co. KG
Fulda, Hessen, 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:

Temperature	D
Humidity	B
Vibration	B
EMC	B
Enclosure	Required protection according to relevant rules shall be provided upon installation on board

Issued at **Hamburg** on **2023-05-16**

for **DNV**

This Certificate is valid until **2028-01-18**.

DNV local unit: **Augsburg**

Approval Engineer: **Holger Jansen**

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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.

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

Temperature Transmitters and Signal / Isolating Converters:

Type	Product name	Description
707203	JUMO dTRANS S08 03	Signal isolator (mA)
707204	JUMO dTRANS S08 04	Signal converter (V, mA)/ supply isolator
707205	JUMO dTRANS S08 05	Eco signal converter (V, mA)
707208	JUMO dTRANS S08 08	Signal isolator/splitter (mA)
707209	JUMO dTRANS S08 09	Signal converter (V, mA)/ supply isolator/splitter
707114	JUMO dTRANS T08 14	Universal transmitter
707189	DS 08 14	Docking station for BD 08 14
707285	JUMO dTRANS S08 85A1	Loop powered signal isolator (1 channel)
707285	JUMO dTRANS S08 85A2	Loop powered signal isolator (2 channel)
707286	JUMO dTRANS S08 86A1	Two-wire transmitter signal amplifier (1 channel)
707286	JUMO dTRANS S08 86A2	Two-wire transmitter signal amplifier (2 channel)
707286	JUMO dTRANS S08 86B1	Two-wire current isolator (1 channel)
707286	JUMO dTRANS S08 86B2	Two-wire current isolator (2 channel)
707217	JUMO dTRANS S08 17	Bipolar signal converter/ isolator
707218	JUMO dTRANS S08 18	Bipolar signal converter/ splitter
707101	JUMO dTRANS T08 01	Eco thermocouple transmitter (J, K)
707102	JUMO dTRANS T08 02	Eco transmitter (Pt 100)
707111	JUMO dTRANS T08 11	Thermocouple transmitter (J, K)
707112	JUMO dTRANS T08 12	Transmitter (Pt100)
707113	JUMO dTRANS T08 13	HART® transmitter (Pt100, J, K)
707137	JUMO dTRANS T08 37	Two-wire transmitter HART® transmitter (Pt100, J, K)
707131	JUMO dTRANS T08 31	Two-wire transmitter (Pt100, J, K)
707133	JUMO dTRANS T08 33	Two-wire transmitter (Pt100)


Approval conditions

The Type Approval covers hardware 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 rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

Application/Limitation

Ex installations to be approved in each case according to the Rules and Ex-Certification/Special Condition for Safe Use listed in valid Ex-certificate issued by a notified/recognized Certification Body.

Ex-certification is not covered by this certificate and the following paragraph, which is for information only, is based on information received from the manufacturer, but not verified by DNV.

Information on Ex-Certification received from manufacturer – Not verified by DNV		
Equipment	Certified	Certificate No.
Temperature Transmitters JUMO dTRANS T08 XX and Signal/isolating Converters JUMO dTRANS S08 XX	 II 3 G Ex nA IIC T4 Gc	DEKRA 18ATEX0007 X issue no. 0
	Ex nA IIC T4 Gc	IECEX DEK 18.0006X issue No. 0

Type Approval documentation

Data sheets:

Silicon Labs Digital Isolators, drawing no. Si8410/20/21 / Si8422/23, rev.01 dated June 2010
Optocoupler S-IC-1008, drawing no. S-IC-1008-D001.xls dated 2010-09-07
Digital Isolator S-IC-8420, drawing no. S-IC-8420-1-D002.xls dated 2010-09-10
VISHAY optocoupler TCLT10 Series, drawing no. 83515, rev.2.2 dated 2008-11-21
Label for System 3000, drawing no. 3000S1 revision 04
System 3000 overview, drawing no. 3000G001 V12R0 dated 2016-12-14
3186 2-wire transmitter isolator / current isolator, data sheet no. 3186-020818

Specifications:

S-TR040-UL-01, V0R3 dated 2010-12-06
S-TR040-UL-01A, V1R0 dated 2016-03-31
S-TR041-UL-01, V0R3 dated 2010-12-06
S-TR041-UL-01A, V1R0 dated 2016-03-31
S-TR042-UL-01, V0R3 dated 2010-12-06
S-TR042-UL-01A, V1R0 dated 2016-03-31
S-TR042-UL-01, V0R3 dated 2010-12-06
S-TR043-UL-01A, V1R0 dated 2016-03-31
S-TR050-UL-21, V0R2 dated 2011-09-05
S-TR050-UL-22, V0R9 dated 2016-02-16

Layout drawings:

PCB Terminals, drawing no. 3 48129 rev. 00 dated 2009-10-13
PCB Terminals, drawing no. C 48129 rev. 03 dated 2011-10-04
Housing, drawing no. C 48131 rev. 06 dated 2010-07-07
Housing, drawing no. 2 61738 rev. 01 dated 2016-06-15
Housing, drawing no. 3 61738 rev. 01 dated 2016-06-15
Housing, drawing no. 3 61739 rev. 00 dated 2016-03-10
Cover, drawing no. C 48132 rev. 05 dated 2010-07-06
Cover, drawing no. C 48135 rev. 04 dated 2010-02-11
Cover, drawing no. C 50631 rev. 03 dated 2010-02-11
Bus Connector, drawing no. C 50979 rev. 02 dated 2010-05-26
Schematic Layout 3109-1-07 dated 2012-06-29
Schematic Layout 3112-1-07 dated 2013-12-09
Schematic Layout 3114-1-02 dated 2010-09-24
Schematic Layout 3185-1-05 dated 2011-10-14
Schematic Layout 3186-1-06 dated 2016-10-13

Operating Manuals:

70710100T90Z001K000 V1.00 – JUMO dTRANS T08 XX Temperature transmitter series 6 mm
70711400T90Z001K000 V1.00 – JUMO dTRANS T08 14 Universal transmitter
70718900T90Z001K000 V1.00 – DS 08 14 Docking station for BD 08 14
70720300T90Z001K000 V1.00 – JUMO dTRANS S08 XX Signal/isolating converter series 6 mm
70721700T90Z001K000 V1.00 – JUMO dTRANS S08 17 Bipolar signal converter/isolator
70721800T90Z001K000 V1.00 – JUMO dTRANS S08 18 Bipolar signal converter/splitter
70728500T90Z001K000 V1.00 – JUMO dTRANS S08 85 Loop powered signal isolator
70728600T90Z001K000 V1.00 – JUMO dTRANS S08 86A / JUMO dTRANS S08 86B

Test Reports:

3109/3114 Damp Heat Test Report, V2R0 dated 2011-01-14
3109 Acceptance test report V10R0 dated 2011-01-20
3109 Integration Test Report V9R0 dated 2010-08-31
3109 Routine Test Specification V6R0 dated 2010-09-01
3114 Acceptance Test Report V3R0 dated 2011-01-20
3114 Routine Test Specification V2R0 dated 2010-10-22
3114 Integration test report V2R0 dated 2010-09-17
3109/3114 Marine Test Report, V3R0 dated 2011-03-18
3118 Acceptance Test Report V2R0 dated 2012-07-06
Delta Vibrations Test Report no. DANAK-1911132 dated 2010-11-15
3185 Acceptance Test Report V3R0 dated 2011-10-26
3186 Acceptance Test Report V7R0 dated 2017-04-25
Delta Vibrations Test Report no. DANAK-1911455 / DELTA-T200103 dated 2011-07-06
3112 Marine Test Report V2R0 dated 2013-06-21
3000 GL Edition 2012 Dry Heat Test Report V1R0 dated 2013-09-02
Test report no. 121-23384-1 Rev. A - Supplementary EMC test on PR-modules dated 2021-06-01
Test report no. 121-27927-1 Rev. A - Supplementary EMC test on 8 PR modules dated 2021-07-07

Type Approval Assessment Report DNV Augsburg 2023-03-23

Tests carried out

Applicable tests according to class guideline DNV-CG-0339, August 2021

Marking of product

The products to be marked with model name, manufacturer name and 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