TYPE APPROVAL CERTIFICATE

Certificate No:
TAA00001SS
Revision No:
2

This is to certify:

That the Inductive Proximity Switch

with type designation(s)
DW series

Issued to
Contrinex AG
Corminboeuf, **Switzerland**

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.

Temperature	**D**
Humidity	**B**
Vibration	**B**
EMC	**A/B**
Enclosure	**D (IP69K/IP68)**

Issued at **Hamburg** on **2021-08-26**

This Certificate is valid until **2023-04-16**.
DNV local station: **Augsburg**

Approval Engineer: **Jens Dietrich**

for **DNV**
Digitally Signed By: Rinkel, Marco
Location: DNV GL SE Hamburg, Germany
Signing Date: 31.08.2021 , on behalf of

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

Part number	Product designation	EMC location class
320-420-748	DW-MS-703-P12G	A
330-320-108	DW-MS-703-P12G *	A
320-420-749	DW-MD-703-P12G	A
330-320-109	DW-MD-703-P12G *	A
320-420-797	DW-MD-703-P12G-298	A
330-320-177	DW-MD-703-P12G-298 *	A
320-420-798	DW-MD-703-P12G-280	A
330-320-178	DW-MD-703-P12G-280*	A
320-420-750	DW-MS-703-M12	A
330-320-110	DW-MS-703-M12 *	A
320-420-751	DW-MD-703-M12	A
330-320-111	DW-MD-703-M12 *	A
320-420-794	DW-MD-703-M12-298	A
330-320-174	DW-MD-703-M12-298 *	A
330-320-181	DW-MD-703-M12-280 *	A
320-420-752	DW-MS-703-M18-002	A
330-320-112	DW-MS-703-M18-002 *	A
320-420-753	DW-MD-703-M18	A
330-320-113	DW-MD-703-M18 *	A
320-420-795	DW-MD-703-M18-298	A
330-320-175	DW-MD-703-M18-298 *	A
330-320-182	DW-MD-703-M18-280 *	A
320-420-754	DW-MS-703-M30-002	A
330-320-114	DW-MS-703-M30-002 *	A
320-420-755	DW-MD-703-M30	A
330-320-115	DW-MD-703-M30 *	A
320-420-796	DW-MD-703-M30-298	A
330-320-176	DW-MD-703-M30-298 *	A
330-320-183	DW-MD-703-M30-280 *	A
320-420-756	DW-MD-703-C23	A
330-320-116	DW-MD-703-C23 *	A
320-420-757	DW-MV-703-C23-276	A
330-320-117	DW-MV-703-C23-276 *	A
320-620-049	DW-AD-603-M10E-620	B
320-620-050	DW-AD-603-M10E-637	B
320-620-064	DW-AD-603-M10E-1304	B

*ASIC 720 design

Designation pos. (excl. dashes)	Designation letter	Description
1 and 2	DW	Inductive sensors
3	M / A	Maritime / Conventional
4	D/S/V	Cable/Connector/Cable+Connector
5	7 /6	Full inox (can be V2A or V4A) / Basic (with ceramic front)
6	0	Flush mounting
7	3 / 1	3 = PNP NO output, 1= NPN NO
8 - 10	M## P12 C23	M## Housing diameter – metric screw thread P12 M12 housing diameter, can withstand high pressures C23 Cubic shape housing 20x32x8mm
11	E / G	Tight / Grove
No Suffix		If cable version: 2m, PUR, 3 wire If connector version: M12 with 4 pin connector
Suffix	002	M18 or M30 sensor with M12 connector
Suffix	276, 280, 298, 620, 637, 1304	For these suffixes refer to data sheet details. Cable lengths up to 25m.

Supply voltage range 10…30V DC
Output current ≤200 mA, short-circuit protected
Load resistance for output signal R_L > 150 Ω.

Places of production

Contrinex AG
Rte du Paqui 5
1720 Corminboeuf
Switzerland

Contrinex Sensor Technology (Suzhou) Co., Ltd.
Building 5, No.42 Dongfu Road, SIP Suzhou, 215123,
CHINA, P.R.

Contrinex Ceylon (Pvt) Ltd
No: 191/1, Hekitta road
11300 Wattala
Sri Lanka

Application/Limitation

The Type Approval covers hardware listed under Product description related to Places of Production. 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.
Technical data sheet to be observed for the respective application. Proper adjustment taking into account ambient operating temperatures and the expansion coefficients for the respective mounting fixture is to be done.

Type Approval documentation

TREO laboratory Test Report no. 281-17, issue 4, dated 2018-03-09;
Cable flammability test reports MPA Dresden, dated 2018-01-15:
LiFYY 3x0,14mm2: 20171841/01, LiFYY11Y 3x0,34mm2; 20171841/03, LiFY11Y 3x0,14mm2: 20171841/02.
Type Approval Assessment Report Contrinex Electronic Technology, Suzhou, China, dated 2018-02-05;
Type Approval Assessment Report Contrinex Electronikai Kft. & SSC Kft. Hungary, dated 2018-02-15;
Type Approval Assessment Report Contrinex Ceylon (PVT) Ltd., Sri Lanka, dated 2018-03-07.
Additional EMC test report TREO 360-20, issue 1, dated 2020-12-11.

Updated data sheets: DW-AD-603-M10E-xxx_Rev 0_23.02.18_MB, DW-Mx-703-C23_Rev 1_14.07.2020_DW-TGF; DW-Mx-70x-M12_Rev 2_17.12.2020_YAS-TK, DW-Mx-70x-M18_Rev 2_17.12.2020_YAS-TK, DW-Mx-70x-M30_Rev 2_17.12.2020_YAS-TK, DW-Mx-70x-P12G_Rev 2_17.12.2020_YAS-TK.
Additional Test Report TREO no. 225-21, issued 2021-08-26.
Additional data sheets filed in Techdoc no.12, 14-16 and 19.

Tests carried out

Applicable tests according to DNV GL CG-0339, Edition Dec. 2019.

Marking of product

Printed on cable or laser marked on housing: Manufacturer name, Type designation, Batch no.

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 this certificate.

END OF CERTIFICATE