DNV·GL

Certificate No:
TAA000010A

TYPE APPROVAL CERTIFICATE

This is to certify:

That the single/double channel separator for 4...20 mA/HART sensors VEGATRENN 141/142, VEGATRENN 151/152

with type designation(s)
TRENN 141, 142 151, 152

Issued to
VEGA Grieshaber KG
Schiltach, 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:

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

This Certificate is valid until **2020-12-03**.

Issued at **Hamburg** on **2017-01-23**
DNV GL local station: **Augsburg** for **DNV GL**

Approval Engineer: **Dariusz Lesniewski**

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.

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Job Id:
Certificate No: **TAA000010A**

Product description

Single/double channel separator for 4…20 mA/HART sensors
Type designation: TRENN 141/142/151/152. **a b X d e f g**

a	Scope	**A** Europe **I** Worldwide
b	Approval	**M** without Ex-Approval **O** with Ex Approval
X	Version	Single channel active sperarator for 4…20 mA/*HART–Sensors (TRENN 141) Double channel active sperarator for 4…20 mA/*HART–Sensors (TRENN 142) Single channel passive sperarator for 4…20 mA/*HART–Sensors (TRENN 151) Double channel passive sperarator for 4…20 mA/*HART–Sensors (TRENN 152)
d	SIL Qualification	**X** without **S** with, incl. Safety Manual
e	Housing/Protection	**K** Plastic / IP 20
f	Connection	**X** 2,5mm² detachable terminal blocks 1 resp. 2 x black / 2 x black **B** 2,5mm² detachable terminal blocks 1 resp. 2 x blue / 2 x black
g	Certificates	**M** yes **X** no

* Shielded cable to be used for HART Communication Mode

	VEGATRENN 141, 142	**VEGATRENN 151, 152**
Power uspply	24…230 V AC 50/60 Hz 24…65 V DC	15…35 V DC (loop-powered)

Application/Limitation

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.

Type Approval documentation

Tests carried out

Applicable tests according to Class Guidance DNVGL-CG-0339, November 2016.

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 at least every second year and at renewal of this certificate.

END OF CERTIFICATE