DNV·GL

Certificate No:
TAA0000092

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Fire Detector

with type designation(s)
12-X27120-000, 12-x27120-022, 12-X27121-000, 12-X27121-020,12-X28020-003, 12-X28021-005

Issued to
TERRY FERRARIS & C. SAS DI MASSIMO E MARCELLO FERRARIS
MILANO, MI, Italy

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

Application :

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

Location classes:

Temperature	**D**
Humidity	**B**
Vibration	**A**
EMC	**na**
Enclosure	**B /IP66**

This Certificate is valid until **2021-01-28**.

Issued at **Høvik** on **2016-01-29**

for **DNV GL**

DNV GL local station: **Milan**

Approval Engineer: **Frode Nygård**

Odd Magne Nesvåg
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: **262.1-020134-2**
Certificate No: **TAA0000092**

Product description

Type approval of FENWAL Detect-A-Fire Temperature detectors in EX- Flameproof housing including variants in electrical rating and temperature settings covered by the following Part Numbers:

Part Number	Description
12-X27120-000	Vertical Mount, Hexagonal head, Brass Fitting, NC – Opens on temp. rise
12-X27120-022	Vertical Mount, Hexagonal head, S.S. Fitting, NC – Opens on temp. rise
12-X27121-000	Vertical Mount, Hexagonal head, Brass Fitting, NO – Closes on temp. rise
12-X27121-020	Vertical Mount, Hexagonal head, S.S. Fitting, NO – Closes on temp. rise
12-X28020-003	Vertical Mount, Coupling Head, S.S. Fitting, NC – Opens on temp. rise
12-X28021-005	Vertical Mount, Coupling Head, S.S. Fitting, NO – Closes on temp. rise

Type designation and configuration of the detector series ADxxxRTxxxx°x is coded as follows.

AD x xx RT x xxx°x

- Units: C=°C , F=°F
- Temperature setting. Range (XXX=140 to 725)
- Part Number: A=12-X27120-000
  B=12-X27120-022
  C=12-X27121-000
  D=12-X27121-020
  E=12-X28020-003
  G=12-X28021-005
- Housing material: 8=AISI 316L (DNVGL/Atex/Gost/CE)
  9=AISI 316L (DNVGL/IECE/Inmetro)
- Type of housing: A=SDET 26
- Flameproof housing

Application/Limitation

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 rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

System application and location of detectors are to be in accordance with relevant parts of the Rules.

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 GL.

Information on the EX-Certification received from manufacturer – Not verified by DNV GL		
Equipment	Marking	Certificate No.
Temperature Detectors series ADxxxRTxxxx°x	Ⓔx II 2GD ($T_{a\ max}$ 145°C) Ex d IIC T6/5/4/3 Gb Ex tb IIIC T70/100/125/150°C Db *or* II 2G ($T_{a\ max}$ 185°C) Ex d IIC T6/5/4/3 Gb *or* II 2D ($T_{a\ max}$ 145°C) Ex tb IIIC T70/100/125 /150°C Db	ICEPI 11 ATEX 03C001 including variation 2

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Type Approval documentation

Tests carried out

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

Marking of product

Type designation	ADxxxRTxxxx°x
Manufacturer	Terri Ferraris & C. S.a.s
Unique serial no.	S/N_____
Temperature ambient	-40 to 190°C or -40 to 220°C
Rated Voltage	24 / 48 / 115 $V_{ac/dc}$
Rated Current	2 / 1 / 0,5 A
Cert. reference	DNV GL TAA000005E

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