

EU RO MUTUAL RECOGNITION TYPE APPROVAL CERTIFICATE

This Certificate is issued to

PR electronics A/S
Rønde, Denmark

for
Sensors

with type designation(s)
Field mounted HART temperature transmitter, type 7501

The product is found to comply with
Type Approval Programme for EU RO MR for Sensors

Intended service
Applicable for a ship as defined in Mutual Recognition provisions Article 10 Regulation on Common Rules and Standards For Ship Inspection and Survey Organizations. Sensors intended for a wide range of process and electrical connections.

This Certificate is valid until **2020-09-10**.

Issued at **Høvik** on **2015-09-11**

DNV GL local station: **Aalborg**

Approval Engineer: **Ståle Sneen**

for **DNV GL**

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.

Product description

Field mounted HART temperature transmitter, type 7501. The transmitter is loop powered and converts the temperature measurement signal of a TC or RTD sensor into a 4–20 mA current signal with HART digital data communication, display and user interface by means of 3 optical buttons.

Order code: **7501abcdefgh**

7501: Type

a: Housing

- A = Low copper aluminium
- B = Stainless Steel

b: Local operator interface

- 1 = No optical buttons, no display
- 2 = No optical buttons, display
- 3 = Optical buttons, display

c: O-ring

- A = -40 to +85°C silicone rubber
- B = -20 to +85°C FKM rubber

d: Conduit thread

- 1 = M20x1.5 6H
- 2 = ½ NPT mod

e: Paint type

- A = Epoxy
- B = Epoxy + Polyurethane
- N = None (stainless steel)

f: Transmitter

- 1 = Yes
- 2 = None (comes with a connection kit)

g: Approvals

- 1 = General purpose
- 2 = Hazardous area

h: Xtra

- None = Standard
 - x = Special edition
- The color of the front is normally Signal Red, but may be changed to any other color

Order example 7501A3B1A12

Supply voltage, DC:

Ex ia, intrinsically safe: 10...30 VDC
(12...30 VDC with backlight)

Other: 10...35 VDC
(12...35 VDC with backlight)

Manufactured by

PR electronics A/S
Rønne, Denmark

Application/Limitation

The Type Approval covers hardware listed under type designation.

Applicable for a ship as defined in Mutual Recognition provisions Article 10 Regulation on Common Rules and standards For Ship Inspection and Survey Organizations.

Ex-certification is not covered by this certificate. Application in hazardous area to be approved in each case according to class requirements and Ex-Certification/ Special Condition for Safe Use listed in valid Ex-certificate issued by a notified/recognized Certification Body.

Type Approval documentation

Marking of product

PR electronics

Model: 7501abcdefgh (see order code under Product description)

Serial: Unique

Other conditions

The sensors have been verified for compliance with EU Mutual Recognition Technical Requirements version 0.1, dated 2014-01-31.

Environmental test parameters

Temperature : -25°C ~ +70°C

Vibration : ±1.6mm/4.0g

Humidity : 95%RH @ 55°C

EMC : All locations including bridge and open deck

Enclosure : IP68 (according to IEC 60529)

DNV GL location classes

D

B

B

B

B

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 annually and at renewal of this certificate.

END OF CERTIFICATE