



DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. A-13690

This is to certify that the
Pressure Transmitter

with type designation(s)
8202 - Navitrag N, 8204 - Navitrag ND

Issued to
Trafag AG
Bubikon, Switzerland

is found to comply with
Det Norske Veritas' Rules for Classification of Ships and High Speed and Light Craft
Det Norske Veritas' Offshore Standards

Application
Location classes:

| | |
|-------------|---|
| Temperature | B |
| Humidity | B |
| Vibration | B |
| EMC | A |
| Enclosure | B |

This Certificate is valid until **2017-12-31**.

Issued at **Høvik** on **2014-02-24**

DNV local station: **Essen CMC Southern Germany**

Approval Engineer: **Ståle Sneen**



for **Det Norske Veritas AS**
Digitally Signed By: **Nesvåg, Odd Magne**

Location: **DNV Høvik, Norway**

Signing Date: **2014-02-28**

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.
If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.

Product description

The type approval covers the following combinations:

| | Ordering Nos. | |
|----------------------|--|----------------------------|
| | Type | Type |
| | 8202 | 8204 |
| Range: | 71, 73, 75, 76, 77, 78, 79, 80, 81, 82, 83, 85, 74, 84, 86 | 71, 55, 75, 58, 77, 78, 79 |
| Sensor: | 22, 26 | 2210 |
| Pressure Connection: | 10, 11 | - |
| Mounting Bracket: | 31 | 00, 31 |

Type Approval documentation

| Type | Data sheets / Instructions | Drawings | Test Reports | |
|------|-----------------------------|--------------------------------|----------------|---|
| 8202 | 2.3.1.2 (H72206f) / H70722b | B64017, Rev.f B64302, Rev.e | Trafag: | 94-01-18/19, 94-09-29, 96-01-08, 96-01-10... 12, 96-02-22 |
| | | | Ascom | Prüfbericht-Nr.: 199 528-95112 DL.Nr.: 95113A |
| | | | EMC testcenter | EMCKP346.1 Index A |
| 8204 | 2.3.1.6 (H72218g) / H73218b | B23051, Rev.d B23217, Rev.b | Trafag | 96-01-08, 96-05-10, 96-02-16, 96-05-22, 96-05-28 |
| | | | EMC testcenter | EMCKP346.1 Index A |

A-11748 periodical assessment report, DNV Essen 2014-02-07.

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