



Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

| | |
|---------------------------|--|
| Manufacturer | NORIS Automation GmbH |
| Address | Friedrich-Barnewitz-Strasse 10, Rostock, 18109, Germany |
| Type | Transmitters/Transducers |
| Description | Rotary Position Sensor with redundant signal output Types DWAxx-Q1-U2 Sensor with voltage output and standard size DWAxx-Q1-R1 Sensor with ohmic output and standard size DWAxx-Q2-U2 Sensor with voltage output and small size DWAxx-Q2-R1 Sensor with ohmic output and small size xx = 50°, 70°, 90°, 180°, 240°, 320° and Customised rotation angle: 10° to 360° in 10° steps |
| Trade Name | DWA-Q |
| Application | Marine, offshore and industrial applications for use in environmental categories ENV1, ENV2, ENV3, ENV4 and ENV5 as defined in Lloyd's Register's Type Approval System, Test Specification Number 1 – May 2018. |
| Specified Standard | Manufacturer's specification IACS unified requirements E10 (Rev.9 Aug 2023) |
| Ratings | Power supply voltage: 24V DC |

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Type of Enclosure: IP 66 and IP68

Additional Tests Enclosure Test: IP68 (1m /48h)

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

Previous Version: 19/20045

The Design Appraisal Document TSO-24-016843/TW and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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