DNV·GL

Certificate No:
TAA00000SC

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Level Switches

with type designation(s)
SITRANS LVL100.XM S/T…P…

Issued to
Siemens Canada Ltd.
Siemens Milltronics Process Instruments
1954 Technology Drive
Peterborough K9J 6X7 ON, CANADA

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	**D**
Humidity	**B**
Vibration	**B**
EMC	**B**
Enclosure	**B, C, D**

This Certificate is valid until **2021-09-21**.

Issued at **Hamburg** on **2016-09-22**

for **DNV GL**

DNV GL local station: **Augsburg**

Approval Engineer: **Dariusz Lesniewski**

Duy Nam Le
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.

Job Id: **262.1-005243-7**
Certificate No: **TAA00000SC**

Product description

Use for detecting of liquid levels in vessels by tuning fork principle.
Type designation:SITRANS LVL 100.XM S/T ab c P d e

ab = process fitting: thread G3/4A, 3/4NPT, G1A, 1 NPT, G1/2A, 1/2 NPT
c = electronics:
C - contact less switch
T - transistor output
d = electrical connection / protection
M - M12x1 / IP67
V - acc. to ISO 4400 including plug / IP65
Q - acc. to ISO 4400 including plug with QuickOn connection / IP67
P - M12x1 incl. 5m cable / IP68 (0.2 bar)
e = switching point:
L - none-standard length

Power supply: 9,6...36V DC (c = T)
20...253V AC 50/60 Hz or
20...253V DC (c = C)
Output: max. 250mA load current
Signal lamps: green (in operation), yellow (switching status), red (failure)
Process pressure: max. 64bar
Process temperature: -40...+150°C (for version 'S' max. temp. +100°C)
Ambient temperature range: -40°C...70°C (derating has to be observed)

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 Ships Pt.4 Ch.9 Control and Monitoring Systems.

Type Approval documentation

Test Reports: No. 267-03 D, No. 11-3658 of paconsult
Test Protocol: No. K 162-04
Test Reports: No. 11-L-01717-01 and No. 11-L-01718-01 of HermesHanseControlCert
Test Reports: No. 1-04_SWING51T_F1_1 and No. 1-05_SWING51_F1_1
Test Reports: Nos. SWING50T/C-4.7(-2.3,-1.5-F2)
Construction drawings; Operating Instructions 43191-EN-160108, 43192-EN-160108
Drawings: No. MB2443, No. ZB3202
Certificate retention survey for A-10857, DNV Essen 2008-12-10

Tests carried out

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

Marking of product

SITRANS LVL 100

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 once in the period of validity and at renewal of this certificate.

END OF CERTIFICATE