

# **Certificate of Compliance**

**Certificate:** 70168199 (213842) **Master Contract:** 213842

**Project:** 70168199 **Date Issued:** 2018-01-17

**Issued to: UWT GmbH** 

Westendstrasse 5 Betzigau, 87488 GERMANY

Attention: Mr. Andreas Haug

The products listed below are eligible to bear the CSA Mark shown



Issued by:

Thomas Munteanu T. Munteanu, P.Eng.

#### **PRODUCTS**

CLASS 2258 03 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non Incendive - For Hazardous Locations

Class I, Groups A, B, C and D; Class II, Groups E, F and G; Class III:

Capanivo Series CN 8000 Standard Capacitance Level Switch; Type CN 8100; rated 12 to 250Vac/dc, 2W max; explosion proof device with intrinsically safe probe; Ambient Temperature Range -40°C to +85°C, Temperature Code T4, Enclosure Type 4, IP65, IP68; Maximum working pressure of 2517kPa for rigid versions and 1034kPa for cable and sliding coupling versions

Capanivo Series CN 8000 Digital Capacitance Level Switch; Type CN 8100; rated 12 to 30Vdc, 12.5mA; explosion proof device with intrinsically safe probe; Ambient Temperature Range -40°C to +85°C, Temperature Code T4, Enclosure Type 4, IP65, IP68; Maximum working pressure of 2517kPa for rigid versions and 103 kPa for cable and sliding coupling versions

RFnivo Series RF 8000 Standard Capacitance Level Switch; Type RF 8100, RF 8200; rated 12 to 250Vac/dc, 2W max; explosion proof device with intrinsically safe probe; Ambient Temperature Range -40°C to +85°C, Temperature Code T4, Enclosure Type 4, IP65, IP68; Maximum working pressure of 3500 kPa for both rigid and cable versions

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RFnivo Series RF 8000 Digital Capacitance Level Switch; Type RF 8100, RF 8200; rated 12 to 30Vdc, 12.5mA; explosion proof device with intrinsically safe probe; Ambient Temperature Range -40°C to +85°C, Temperature Code T4, Enclosure Type 4, IP65, IP68; Maximum working pressure of 3500 kPa for both rigid and cable versions

NivoCapa Series NC 8000 Standard Continuous Level Transmitter; Type NC 8100; rated 12-30Vdc, 4-20mA; explosion proof device with intrinsically safe probe; Ambient Temperature Range -40°C to +85°C, Temperature Code T4, Enclosure Type 4, IP65, IP68; Maximum working pressure of 3500kPa for both rigid and cable versions

NivoCapa Series NC 8000 Digital Continuous Level Transmitter; Type NC 8100; rated 12-30Vdc, 12.5mA; explosion proof device with intrinsically safe probe; Ambient Temperature Range -40°C to +85°C, Temperature Code T4, Enclosure Type 4, IP65, IP68; Maximum working pressure of 3500kPa for both rigid and cable versions

CLASS 2258-04 PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - For Hazardous Locations

Class I, Groups A, B, C and D; Class II, Groups E, F and G; Class III:

Capanivo Series CN 8000 Digital Capacitance Level Switch; Type CN 8000, with solid state output switch rated 30Vac/dc, 82mA; input rated 12 to 24Vdc, 12.5mA; in accordance with the FISCO Model according to IEC 60079-27, with entity parameters: Ui (Vmax) = 24 V, Ii (Imax) = 380 mA, Pi = 5,32 W, Ci = 5 nF, Li = 10  $\mu$ H; solid state output switch, with entity parameters: Ui (Vmax) = 30 V, Ii (Imax) = 110 mA, Pi = 825 mW (for groups A, B, C and D), Ii (Imax) = 200 mA, Pi = 1500 mW (for groups C and D), Ci = 0 nF, Li = 0  $\mu$ H; intrinsically safe when connected in accordance with the CSA/FM Connection Drawing contained in the instruction manual; Ambient Temperature Range -40°C to +85°C, Temperature Code T4, Enclosure Type 4, IP65, IP68

RFnivo Series RF 8000 Digital Capacitance Level Switch; Type RF 8100, RF 8200, with solid state output switch rated 30 Vac/dc, 82 mA; input rated 24Vdc, 12.5mA; in accordance with the FISCO Model according to IEC 60079-27, with entity parameters: Ui (Vmax) = 24 V, Ii (Imax) = 380 mA, Pi = 5,32 W, Ci = 5 nF, Li = 10  $\mu$ H; solid state output switch , with entity parameters Ui (Vmax) = 30 V, Ii (Imax) = 110 mA, Pi = 825 mW (for groups A, B, C and D), Ii (Imax) = 200 mA, Pi = 1500 mW (for groups C and D), Ci = 0 nF, Li = 0  $\mu$ H; intrinsically safe when connected in accordance with the CSA/FM Connection Drawing contained in the instruction manual; Ambient Temperature Range -40°C to +85°C, Temperature Code T4, Enclosure Type 4, IP65, IP68

NivoCapa Series NC 8000 Digital Continuous Level Transmitter; Type NC 8100; with solid state output switch rated 30Vac/dc, 82 mA; input rated 24Vdc, 12.5mA; in accordance with the FISCO Model according to IEC 60079-27, with entity parameters: Ui (Vmax) = 24 V, Ii (Imax) = 380 mA, Pi = 5,32 W, Ci = 5 nF, Li = 10  $\mu$ H; solid state output switch, with entity parameters Ui (Vmax) = 30 V, Ii (Imax) = 110 mA, Pi = 825 mW (for groups A, B, C and D), Ii (Imax) = 200 mA, Pi = 1500 mW (for groups C and D), Ci = 0 nF, Li = 0  $\mu$ H; intrinsically safe when connected in accordance with the CSA/FM Connection Drawing contained in the instruction manual; Ambient Temperature Range -40°C to +85°C, Temperature Code T4, Enclosure Type 4, IP65, IP68

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CLASS 2258-02 PROCESS CONTROL EQUIPMENT - For Hazardous Locations

Class I, Division 2, Groups A, B, C, D; Class II, Division 2, Groups F and G; Class III, Division 2:

Capanivo Series CN 8000 Digital Capacitance Level Switch; Type CN 8000, with solid state output switch rated 30 Vac/dc, 82 mA; input rated 30 Vdc, 12.5mA; Ambient Temperature Range -40°C to +85°C, Temperature Code T4/T6, Enclosure Type 4, IP65, IP68

RFnivo Series RF 8000 Digital Capacitance Level Switch; Type RF 8100, RF 8200; with solid state output switch rated 30Vac/dc, 82mA; input rated 30Vdc, 12.5 mA; Ambient Temperature Range -40°C to +85°C, Temperature Code T4/T6, Enclosure Type 4, IP65, IP68

NivoCapa Series NC 8000 Digital Continuous Level Transmitter; Type NC 8100; with solid state output switch rated 30Vac/dc, 82mA; input rated 30Vdc, 12.5mA; Ambient Temperature Range -40°C to +85°C, Temperature Code T4/T6, Enclosure Type 4, IP65, IP68

#### APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 0-M91 - General Requirements - Canadian Electrical Code, Part II

CSA C22.2 No. 25-1966 - Enclosures for Use in Class II Groups E, F and G Hazardous Locations

CSA C22.2 No. 30-M1986 - Explosion-Proof Enclosures for Use in Class I Hazardous Locations

CAN/CSA -C22.2 No. 94-M91 - Special Purpose Enclosures

CAN/CSA-C22.2 No. 157-92 - Intrinsically Safe and Non-Incendive Equipment for Use in Hazardous Locations CAN/CSA-C22.2 No. 61010-1-04 - Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use, Part 1: General Requirements

CSA C22.2 No. 213-M1987 - Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations

CAN/CSA C22.2 No. 60529:05 - Degrees of protection provided by enclosures (IP Code)

#### **MARKINGS**

The following information is laser etched on a metal nameplate which is permanently secured to the equipment via drive-pins or alternatively using a nameplate adhesive label 3M ScotchMark 7875 or 3M Scotchcal 3698E, CSA approved type.

- (1) Submittor's name, trademark, or the CSA file number adjacent the CSA Mark.
- (2) Catalogue / Model designation.
- (3) Date code or Serial Number traceable to month and year of manufacture.
- (4) Complete electrical ratings.
- (5) Hazardous Location designations (as applicable).
- (6) The maximum ambient temperature.
- (7) The maximum working pressure (MWP) in kPa. Refer to Instruction Manual.
- (8) Temperature Code Rating (where applicable).
- (9) The CSA Mark.
- (10) The words "INTRINSICALLY SAFE" and/or Ex ia (where applicable)

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- (11) Enclosure ratings (as applicable).
- (12) The following cautions:

CAUTION: OPEN CIRCUIT BEFORE REMOVING COVER" and, "ATTENTION: OUVRIR LE CIRCUIT AVANT D'ENLEVER LE COUVERCLE" or,

CAUTION: KEEP COVERS TIGHT WHILE CIRCUITS ARE ALIVE" and, "ATTENTION: GARDER LE COUVERCLE BIEN FERME TANT QUE LES CIRCUITS SONT SOUS TENSION" or the equivalent. The 3M Scotchcal 3698E label has to be marked with the warning: "Not including Ketones and Esters atmospheres".



## Supplement to Certificate of Compliance

**Certificate:** 70168199 (213842) **Master Contract:** 213842

The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

### **Product Certification History**

Project	Date	Description
70168199	2018-01-17	Covers transfer of Hazloc certificate 1959559 to UWT and addition of alternate UWT part nos.