TECHNICAL STANDARDS & SAFETY AUTHORITY
14th Floor, Centre Tower
3300 Bloor Street West
Toronto, Ontario
Canada M8X 2X4

Show facsimile of manufacturer's logo or trademark, as it will appear on the fitting, in the space below

Endress+Hauser

People for Process Automation

# STATUTORY DECLARATION
## Registration of Fittings

I, MICHAEL FREI, Quality Management Representative, responsible for the Integrated QM System
*(Name and Position, e.g. President, Plant Manager, Chief Engineer)*

of ENDRESS+HAUSER GmbH+Co. KG
*(Name of Manufacturer)*

Located at DE-79689 Maulburg, Germany +49 7622 28 2672
*(Plant Address)* *(Telephone No.)* *(Fax No.)*

☑ do solemnly declare that the fittings listed hereunder, which are subject to the ***Technical Standards and Safety Act***, Boilers and Pressure Vessels Regulation, comply with all of the requirements of
ASME B31.3
*(Title of recognized North American Standard)*
which specifies the dimensions, materials of construction, pressure/temperature ratings, identification marking the fittings and service;

☐ or are not covered by the provisions of a recognized North American standard and are therefore manufactured to comply with _____ as supported by the attached data which identifies the dimensions, material of construction, pressure/temperature ratings and the basis for such ratings, the marking of the fitting for identification and service.

I further declare that the manufacture of these fittings is controlled by a quality system meeting the requirements of ISO 9001:2008 _____ which has been verified by the following authority, SQS.
The items covered by this declaration, for which I seek registration, are category F - ADAPTERS type fittings. In support of this application, the following information and/or test data are attached as follows:
SCOPE OF CRN REGISTRATION, REPORTS, DRAWINGS, CALCULATIONS
*(drawings, calculations, test reports, etc.)*

**Declared before me at** _____ **in the** _____ **of** _____

**the** _____ **day of** _____ **AD 20**_____.

**Commissioner for Oaths:**

_____
*(Printed name)*

_____ _____ (Back)
*(Signature)* *(Signature of Declarer)*

***FOR OFFICE USE ONLY***

To the best of my knowledge and belief, the application meets the requirements of the ***Technical Standards and Safety Act***, Boilers and Pressure Vessels Regulation, and CSA Standard B51 and is accepted for registration in Category F

CRN: CSA-OF18434.56

Registered by: A. BANWATT

Dated: JUNE. 20. 2016

**NOTE: This registration expires on** APRIL. 26. 2026

CSA Group
REGISTERED
C.R.N.: CSA-OF18434.56
Signed: A. Banwatt
Date: 20/06/2016
178 Rexdale Boulevard, Toronto, ON Canada M9W 1R3

PV 09553 (06/04)

CSA Group

*Note: See the attachment for the scope of the registration.

ENDRESS+HAUSER GMBH+CO KG
DE-79689 MAULBURG,
GERMANY

Endress+Hauser

People for Process Automation

25/April/2016

Rev.2



| Doc. | 96001XXXX |
|---|---|

## SCOPE OF CRN REGISTRATION

| | | | |
|---|---|---|---|
| Product: | ADAPTERS | Drawing overview | 960018080 |
| Code of Construction: | ASME B31.3-2014 | | |

### PRODUCT DESCRIPTION

| Adapter Model | Connection | | Materials of Construction [1] | Maximum Design Pressure (bar) and Temperature (°C) [2] |
|---|---|---|---|---|
| | Process Installation | Sensor Installation | | |
| RD52 [3] | Flush Mounted Welding Boss, 65mm OD | RD52 Thread, 42.3mm ID | UNS S31600, A-479, (316, 1.4401)<br>UNS S31603, A-479, (316L, 1.4435)<br>UNS S31603, A-479, (316L, 1.4404) | 40 barg<br>-60°C up to 150°C |
| UNI D85 [3] | Flush Mounted Welding Boss, 85mm OD | RD52 Thread, 44.0mm ID | UNS S31600, A-479, (316, 1.4401)<br>UNS S31603, A-479, (316L, 1.4435)<br>UNS S31603, A-479, (316L, 1.4404) | 10 barg<br>-60°C up to 150°C |
| UNI D65 [3] | Flush Mounted Welding Boss, 65mm OD | RD52 Thread, 44.0mm ID | UNS S31600, A-479, (316, 1.4401)<br>UNS S31603, A-479, (316L, 1.4435)<br>UNS S31603, A-479, (316L, 1.4404) | 10 barg<br>-60°C up to 150°C |
| M24 D65 [3] | Flush Mounted Welding Boss, 65mm OD | M24 Thread | UNS S31600, A-479, (316, 1.4401)<br>UNS S31603, A-479, (316L, 1.4435)<br>UNS S31603, A-479, (316L, 1.4404) | 100 barg<br>-60°C up to 150°C |
| G1" adjustable [3] | Flush Mounted Welding Boss, 65mm OD | G1" Thread Aligned | UNS S31600, A-479, (316, 1.4401)<br>UNS S31603, A-479, (316L, 1.4435)<br>UNS S31603, A-479, (316L, 1.4404) | 40 barg<br>-60°C up to 150°C |
| G3/4", d=29 without flange [3] | Welding Boss, 29mm OD, 26mm ID | G3/4" Thread | UNS S31600, A-479, (316, 1.4401)<br>UNS S31603, A-479, (316L, 1.4435)<br>UNS S31603, A-479, (316L, 1.4404) | 40 barg<br>-60°C up to 150°C |
| G3/4", d=50 with flange [3] | Flush Mounted Welding Boss, 50mm OD | G3/4" Thread | UNS S31600, A-479, (316, 1.4401)<br>UNS S31603, A-479, (316L, 1.4435)<br>UNS S31603, A-479, (316L, 1.4404) | 40 barg<br>-60°C up to 150°C |
| G1" Flush Mounted (sealing taper) [3] | Flush Mounted Welding Boss, 50mm OD | G1" Thread | UNS S31600, A-479, (316, 1.4401)<br>UNS S31603, A-479, (316L, 1.4435)<br>UNS S31603, A-479, (316L, 1.4404) | 100 barg<br>-60°C up to 150°C |
| G1", d=60 with flange [3] | Flush Mounted Welding Boss, 60mm OD | G1" Thread | UNS S31600, A-479, (316, 1.4401)<br>UNS S31603, A-479, (316L, 1.4435)<br>UNS S31603, A-479, (316L, 1.4404) | 40 barg<br>-60°C up to 150°C |
| G1", d=53 without flange [3] | Welding Boss, 53mm OD, 50mm ID | G1" Thread | UNS S31600, A-479, (316, 1.4401)<br>UNS S31603, A-479, (316L, 1.4435)<br>UNS S31603, A-479, (316L, 1.4404) | 40 barg<br>-60°C up to 150°C |
| Varivent F DN25-32 PN40 [4] | Varivent F DN25-32 PN40 | M24 Thread | UNS S31600, A-479, (316, 1.4401)<br>UNS S31603, A-479, (316L, 1.4435)<br>UNS S31603, A-479, (316L, 1.4404) | 40 barg<br>-60°C up to 150°C |
| Varivent N DN40-162 PN40 [4] | Varivent N DN40-162 PN40 | M24 Thread | UNS S31600, A-479, (316, 1.4401)<br>UNS S31603, A-479, (316L, 1.4435)<br>UNS S31603, A-479, (316L, 1.4404) | 40 barg<br>-60°C up to 150°C |
| DIN11851 DN25, DN32, DN40 | DIN11851 DN25, DN32, DN40 | M24 Thread | UNS S31600, A-479, (316, 1.4401)<br>UNS S31603, A-479, (316L, 1.4435)<br>UNS S31603, A-479, (316L, 1.4404) | 40 barg<br>-60°C up to 150°C |
| DIN11851 DN50 | DIN11851 DN50 | M24 Thread | UNS S31600, A-479, (316, 1.4401)<br>UNS S31603, A-479, (316L, 1.4435)<br>UNS S31603, A-479, (316L, 1.4404) | 25 barg<br>-60°C up to 150°C |

CSA Group 1 OF 2

ATTACHMENT TO
C.R.N.: CSA-0F18434.56
Signed: [illegible]
178 Rexdale Boulevard, Toronto, ON Canada M9W 1R3

## PRODUCT DESCRIPTION

| Adapter Model | Connection | | Materials of Construction [1] | Maximum Design Pressure (bar) and Temperature (°C) [2] |
|---|---|---|---|---|
| | Process Installation | Sensor Installation | | |
| SMS 1-1/2" [5] | SMS 1-1/2" | M24 Thread | UNS S31600, A-479, (316, 1.4401)<br>UNS S31603, A-479, (316L, 1.4435)<br>UNS S31603, A-479, (316L, 1.4404) | 25 barg<br>-60°C up to 150°C |
| | | | | |
| Clamp 1-1/2" [4] | ISO2852 Clamp 1-1/2" | M24 Thread | UNS S31600, A-479, (316, 1.4401)<br>UNS S31603, A-479, (316L, 1.4435)<br>UNS S31603, A-479, (316L, 1.4404) | 40 barg<br>-60°C up to 150°C |
| | | | | |
| Clamp 2" [4] | ISO2852 Clamp 2" | M24 Thread | UNS S31600, A-479, (316, 1.4401)<br>UNS S31603, A-479, (316L, 1.4435)<br>UNS S31603, A-479, (316L, 1.4404) | 40 barg<br>-60°C up to 150°C |
| | | | | |

| MANUFACTURING LOCATIONS | |
|---|---|
| Endress+Hauser GmbH Co. KG<br>DE-79689 Maulburg<br>Germany | Endress+Hauser (USA) Automation Instrumentation Inc.<br>Greenwood, Indiana<br>46143, USA |
| Endress+Hauser Suzhou Automation Instrumentation Co. Ltd.<br>215021 Suzhou<br>P.R. China | Endress+Hauser (India) Automation Instrumentation Pvt. Ltd.<br>Aurangabad-431136<br>India |

**Note 1)** This CRN consolidates various adapters previously registered under CRN 0F16950.5C and 0F18141.5C into one CRN. No structural or dimensional changes to the adapter fittings and/or fitting components have occurred since the original CRN's were issued. In additional the following CRN registration optimization has been performed:

- The CRN registered pressure and temperature has been maximized based on ASME B31.3 and/or ASME Section II Part D allowable stress values.

- Various new materials have been added **(See Note 2)** that have a higher allowable stress over the CRN registered temperature range than the originally registered material of ASTM A479-316/316L.

**Note 2)** The following additional alloys of superior or equivalent properties to those listed above are also included in the scope of registration as follows: N08904, A479/A182, (904L, 1.4539), N06022, B575/B574/B564, (C-22, 2.4602); N10276, B574/B564, (C-276, 2.4819); S31803, A479/A182, F51, (318LN, 1.4462); S32750, A240/A182, F53, (2507, 1.4410); S32760, A479/A182, F55, (Zeron 100, 1.4501); N06600, B166/B564, (Inconel 600, 2.4816); N06625, B446/B564, (Inconel 625, 2.4856); N08825, B425/B564, (Inconel 825, 2.4858); S30400/S30403, A479/A182, (304/304L, 1.4301/1.4306/1.4307);

**Note 3)** Maximum Design Pressure stated is for the adapter only and not the sensor being installed in the adapter. Pressure-temperature ratings may be limited by the sensor installed in the adapter. Consult sensor CRN for sensor pressure temperature ratings. MDMT for materials UNS S31803, S32750, S32760 limited to -51°C.

**Note 4)** Welding of the welding boss to process piping or vessels is to be in accordance with the requirements of CSA B51, applicable ASME codes and Canadian jurisdictional requirements. Suitability of the welding joint design and strength is the responsibility of the installer/designer and is not covered under this CRN.

**Note 5)** The assembly clamp is not part of the CRN and is not manufactured by ENDRESS+HAUSER. Pressure-Temperature ratings may be limited by the clamp type used in the joint assembly. Consult clamp Manufacturer for clamp Pressure-Temperature ratings.

**Note 6)** ENDRESS+HAUSER supplies only the SMS nut and female part of the ferrule. The SMS mating ferrule (male part) is not part of the CRN and is not manufactured and not delivered by ENDRESS+HAUSER. Pressure-Temperature ratings may be limited by the SMS mating ferrule used in the joint assembly. Consult mating ferrule manufacturer for SMS mating ferrule Pressure-Temperature ratings.

CSA Group 2 OF 2

ATTACHMENT TO
C.R.N.: CSA-0F18434.5C
Signed:
178 Rexdale Boulevard, Toronto, ON Canada M9W 1R3

THIS IS PART OF
CRN 0F18434.5
Technical Standards & Safety Authority
Boilers & Pressure Vessels
Division

NOTE: SCOPE FOR PAGE 1 & 2.
165A
APR. 26/16