345 Carlingview Drive
Toronto, Ontario M9W 6N9
Tel.: 416.734.3300
Fax: 416.231.1626
Toll Free: 1.877.682.8772

www.tssa.org

January 03, 2019

ROGER WENIGE
ENDRESS + HAUSER GMBH + CO KG
1 HAUPTSTRASSE
MAULBURG 79689
DE

Service Request Type: BPV-Fitting Registration
Service Request No.: 2466886
Your Reference No.: 15002592
Registered to: ENDRESS + HAUSER GMBH + CO KG

Dear ROGER WENIGE,

Technical Standards and Safety Authority (TSSA) is pleased to inform you that your submission has been reviewed and registered as follows:

CRN : 0F12978.5R1
Main Design No.: SOLICAP M FTI55, FTI56 - SEE SCOPE OF REGISTRATION
961003390
Expiry Date: 03-Jan-2029

Please be advised that a valid quality control system must be maintained for the fitting registration to remain valid until the expiry date.

See one sheet of attachment to Statutory Declaration for Scope of registration.

A stamped copy of the approved registration and invoice for engineering services will be mailed to you shortly. Should you have any questions or require further assistance, however, please contact a Customer Service Advisor at 1.877.682.TSSA (8772) or e-mail customerservices@tssa.org. We will be happy to assist you. When contacting TSSA regarding this file, please refer to the Service Request number provided above.

Yours truly,

Kaivan Kia P. Eng., PMP
Mechanical Engineer, BPV
Tel. : 416-734-3457
Fax : 416-231-6183
Email : kkia@tssa.org

Technical Standards and Safety Authority
345 Carlingview Drive
Toronto, Ontario M9W 6N9
www.tssa.org

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 Quality Management System
(Name and Position, e.g. President, Plant Manager, Chief Engineer)

of ENDRESS+HAUSER SE+Co.KG
(Name of Manufacturer)

Located at see attached worldwide location appendix +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

_____
(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 ASME B31.3 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 which has been verified by the following authority, SQS.
The items covered by this declaration, for which I seek registration, are category CAT. F - SOLICAP M type fittings. In support of this application, the following information and/or test data are attached as follows:
SCOPE OF 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)

_____ _____
(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: 0F12978 5RI

Registered by: K Kai

Dated: Jan 3/19

NOTE: This registration expires on: Jan 3/2029

Technical Standards and Safety Authority — Boilers and Pressure Vessels Safety Program
REGISTERED
C.R.N.: 0F12978 5RI
Signed: K Kai
Date: Jan 3/19

**Information provided in this application is releasable under the Freedom of Information and Privacy Protection Act and may be disclosed upon request.*

PV 09553 (04/17) See one sheet of attachment for scope. KK 1/3/2019

Endress+Hauser
People for Process Automation

WORLDWIDE LOCATIONS APPENDIX – PAGE 1 OF 2

ENDRESS+HAUSER SE+Co. KG MANUFACTURING LOCATIONS & CERTIFYING AUTHORITIES

(rev. 28/November/2018)

Endress+Hauser SE+Co. KG
Hauptstrasse 1
79689 Maulburg
Germany
ISO 9001 Certified by SQS

Endress+Hauser (Suzhou) Automation Instrumentation Co. Ltd.
China – Singapore
Suzho Industrial Park (SIP)
Su Hong Zhong Lu No. 491
Jiangsu Province
215021 Suzhou, P.R. China
ISO 9001 Certified by SQS

Endress+Hauser (India)
Automation Instrumentation Pvt. Ltd.
M-192, Waluj MIDC
Aurangabad – 431136,
Maharashtra State, India
ISO 9001 Certified by SQS

Endress+Hauser Yamanashi Co., Ltd.
862-1 Mitsukunugi
Sakaigawa-cho
Fuefuki-shi
406 0846 Yamanashi, Japan
ISO 9001 Certified by SQS

Endress+Hauser (USA)
Automation Instrumentation Inc.
2340 Endress Place
Greenwood, Indiana 46143, USA
ISO 9001 Certified by SQS

Endress+Hauser (Brazil)
Instrumentacao e Automacao Ltda.
Estrada Municipal Antonio Sesti
600 Bairro Recreio Costa Verde
Itatiba/SP – 13254-085, Brazil
ISO 9001 Certified by SQS

Endress+Hauser
People for Process Automation

WORLDWIDE LOCATIONS APPENDIX – PAGE 2 OF 2

ENDRESS+HAUSER SE+Co. KG MANUFACTURING LOCATIONS & CERTIFYING AUTHORITIES

(rev. 28/November/2018)

Endress+Hauser SE+Co. KG
Miramstrasse 87
34123 Kassel
Germany
ISO 9001 Certified by SQS

Endress+Hauser SE+Co. KG
Queremathe 2
14532 Stahnsdorf
Germany
ISO 9001 Certified by SQS

THIS IS PART OF
CRN 0F12978.5R1
Technical Standards & Safety Authority
Boilers & Pressure Vessels
Safety Program

A2 Evaluation based on proof pressure tests or calculations

The following table shows the overview for Solicap M, the process connections refer to a calculation or to a proof test.
Note: The correlation between the drawing and the associated process connection is defined in the first column. For e.g. No.1.1 drwg. 960008564 → 1.X and X.1 = thread R1 ½ and thread 1 ½ NPT.

A2.1 SOLICAP M FTI55/56 rod and rope (see drawing Solicap M SCAP 960008564)

No.	type of test specimen	process connec-tion	classification of material	temp. range [°C]	process pressure [bar]	verified through
1.1	Solicap M FTI55	R 1 1/2"	**thread** 316L (A-479)	PPS -50 to +180 PE -50 to +80	20(1)	Solicap-thread-R 1 1/2.pdf
		NPT 1 1/2"				Solicap-thread-NPT 1 1/2.pdf
1.2	Solicap M FTI55	ASME flange 2" to 4"	**Adapter:** 316L (A-479) **flange** Dual rated material 316/316L	PPS -50 to +180 PE -50 to +80	20(1) 20(2)	**Adapter/flange** Solicap-flange-size-class150.pdf
2.1	Solicap M FTI55	R 1 1/2"	**thread** 316L (A-479) **tube** A-312 TP316L wld & smls pipe	PPS -50 to +180 PE -50 to +80	20(1)	**thread:** Solicap-thread-R 1 1/2.pdf Solicap-thread-NPT 1 1/2.pdf **tube** Solicap-tube-external-pressure-25bar.pdf
		NPT 1 1/2"				
2.2	Solicap M FTI55	ASME flange 2" to 4"	**Adapter:** 316L (A-479) **flange** Dual rated material 316/316L	PPS -50 to +180 PE -50 to +80	20(1) 20(2)	**Adapter/flange** Solicap-flange-size-class150.pdf
3.1	Solicap M FTI55	R 1 1/2"	**thread** 316L (A-479)	PPS -50 to +180 PE -50 to +80	20(1)	Solicap-thread-R 1 1/2.pdf
		NPT 1 1/2"				Solicap-thread-NPT 1 1/2.pdf
3.2	Solicap M FTI55	ASME flange 2" to 4"	**Adapter:** 316L (A-479) **flange** Dual rated material 316/316L	PPS -50 to +180 PE -50 to +80	20(1) 20(2)	**Adapter/flange** Solicap-flange-size-class150.pdf
4.1	Solicap M FTI56	R 1 1/2"	**thread** 316L (A-479)	PTFE -50 to +180 PA -50 to +120	20(1)	Solicap-thread-R 1 1/2.pdf
		NPT 1 1/2"				Solicap-thread-NPT 1 1/2.pdf
4.2	Solicap M FTI56	ASME flange 2" to 4"	**Adapter:** 316L (A-479) **flange** Dual rated material 316/316L	PTFE -50 to +180 PA -50 to +120 -80 to +200	20(1) 20(2)	**Adapter/flange** Solicap-flange-size-class150.pdf
5.1	Solicap M FTI56	R 1 1/2"	**thread** 316L (A-479)	PTFE -50 to +180 PA -50 to +120 -80 to +200	20(1)	Solicap-thread-R 1 1/2.pdf
		NPT 1 1/2"				Solicap-thread-NPT 1 1/2.pdf
5.2	Solicap M FTI56	ASME flange 2" to 4"	**Adapter:** 316L (A-479) **flange** Dual rated material 316/316L	PTFE -50 to +180 PA -50 to +120 -80 to +200	20(1) 20(2)	**Adapter/flange** Solicap-flange-size-class150.pdf

1) Derating for PE or PA fully insulated version (see instruction manual)
2) Depending on flange size see ASME B16.5-2003, table2-2.2, p.37, "pipe flanges and flange fittings"

Notes: Design pressure of flanged models to follow values from ASME B16.5 at design temp. Material to be SA-240. KK 1/3/19