14th Floor, Centre Tower
3300 Bloor Street West
Toronto, Ontario
Canada M8X 2X4
Tel.: 416.734.3300
Fax: 416.231.1626
Toll Free: 1.877.682.8772

www.tssa.org

September 04, 2015

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

Service Request Type: BPV-Fitting Registration
Service Request No.: 1708298
Your Reference No.: SoR# 960017940 - RENEW CRN 0F10907.5
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 No.: 0F10907.5R2
Main Design No.: LEVEL LIMIT SWITCHES SOLIPHANT M FTM50, FTM51 & SOLIPHANT T FTM20, FTM21
SoR SCOPE OF REGISTRATION 960017940
Expiry Date: 11-May-2026

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

Note: 10 years renewal to existing registration. Multiple plant locations included.

The stamped copy of the approved registration and the invoice are mailed separately. Should you have any questions or require further assistance, 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,

Ruiming You, P.Eng.
Mechanical Engineer, BPV
Tel.: 416-734-3428
Fax: 416-231-6183
Email: ryou@tssa.org

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

Endress+Hauser
People for Process Automation

STATUTORY DECLARATION
Registration of Fittings

I, Michael Frei, Quality Manager, responsible for the Integrated Quality Management System
(Name and Position, e.g. President, Plant Manager, Chief Engineer)

of Endress+Hauser GmbH+Co.KG (Germany); Endress+Hauser Automation Instr. Co. Ltd (China); Endress+Hauser Automation Instr. Pvt. Ltd (India); Endress+Hauser Automation Instr. Inc. (USA)
(Name of Manufacturer)

Located at 79689 Maulburg, Germany; 215021 Suzhou, China; 431136 Aurangabad, India; Greenwood, IN 46143, USA +49-7622 28 26 72
(Plant Address) *(Telephone No.)* *(Fax No.)*

[X] 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, IQNet and SQS.
The items covered by this declaration, for which I seek registration, are category F type fittings. In support of this application, the following information and/or test data are attached as follows: Soliphant M FTM50, 51, Soliphant T FTM20, 21 SoR #960017940 , Techn Descr TD-CRN_SoliphantM_T_AMEND1, dwgs #960007246-A, #960007258
(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: OF 10907.5R2

Registered by: Ruiming Yu

Dated: Sept 04, 2015

NOTE: This registration expires on: May 11. 2026

Technical Standards & Safety Authority
REGISTERED
CRN: OF 10907.5R2
Signed:
Date: Sept 04, 2015

PV 09553 (11/12)

File No. 1 UR 1116 / 2015

Certification

I hereby certify that the document overleaf was signed in my presence on this day, the 13th of August 2015, by Mr.

Michael F r e i, born on the 7th of December 1953,
of Hauptstr. 1, D-79689 Maulburg / Germany,

who is personally known to me,

acting as Quality Assurance Manager of

Endress + Hauser GmbH + Co. KG, Hauptstr. 1, D-79689 Maulburg.

Schopfheim, the 13th of August 2015

NOTARIAT SCHOPFHEIM

Klein
Oberjustizrat, notary public

SoR Scope of Registration **960017940**

Sensor type 1 **Soliphant M FTM50, FTM51**

Sensor type 2 **Soliphant T FTM20, FTM21**

Endress+Hauser

People for Process Automation

No.	Type of test specimen	type of instrument(1)	process connection	classification of material	temperature limits Tmin [°C]	temperature limits Tmax [°C]	process pressure at Tmin in [bar]	process pressure at Tmax in [bar]	test pressure po [bar]	verified through
1	Soliphant M	FTM 50/51	ASME flange	316 L (3)	-50	300	25	25	-	FEA report Soli-FTM50-51-ASME-flange.pdf
2	Soliphant M	FTM 50/51	1 ¼ NPT (Ø35)	316 L (3)	-50	300	25	25	200	proof test report ASME_SoliMFTM51_35mm (2)
3	Soliphant M	FTM 50/51	1 ½ NPT (Ø35)	316 L (3)	-50	300	25	25	200	proof test report ASME_SoliMFTM51_35mm
4	Soliphant M	FTM 50/51	1 ½ NPT (Ø42)	316 L (3)	-50	300	25	25	200	proof test report ASME_SoliMFTM51_42,4mm thread connection see ASME_SoliM51_35mm
			R 1 ½ (Ø42)	316 L (3)	-50	300	25	25	200	proof test report ASME_SoliMFTM51_42,4mm
5	Soliphant M	FTM 50/51	Clamp ISO 2852 DN40-51	316 L (3)	-50	121	~~11. Apr~~ 11.4	~~11. Apr~~ 11.4	-	FEA report LiqM-50-51-Clamp-DN40-51.pdf
10	Soliphant T	FTM 20/21	1 ½ NPT	316 L (4)	-50	150	25	25	200	proof test report ASME_SoliTFTM21_29mm
11	Soliphant T	FTM 20/21	1 ¼ NPT	316 L (4)	-50	150	25	25	200	proof test report ASME_SoliTFTM21_29mm (2)

(1) FTM 20/50 = compact version; FTM 21/51 = with extension tube

(2) 1 ½ NPT is worst case (same pitch, but greater diameter)

(3)	all threads and clamps:	316L (ASTM A479)
	flange:	316/316L (ASTM A182 Gr.F316/316L or A240 Gr.F316/316L)
	extension tube:	316L (ASTM A312)
	fork:	316L (ASTM A351 Gr.CF3M)
	rod:	316L (ASTM A276)
(4)	all threads:	316L (ASTM A479)
	sensor tube and extension tube:	316L (ASTM A312)

Manufacturing locations:

Endress+Hauser GmbH Co. KG
DE-79689 Maulburg, Germany

Endress+Hauser (USA) Automation Instrumentation Inc.
Greenwood, Indiana, 46143, USA

Endress+Hauser Suzhou Automation Instrumentation Co. Ltd.
215021 Suzhou, P.R. China

Endress+Hauser (India) Automation Instrumentation Pvt. Ltd.
Aurangabad-431136, India

THIS IS PART OF CRN 0F10907.5R
Technical Standards & Safety Authority
Boilers & Pressure Vessels
Safety Program