



# Instruction Manual

## Thermometer



TE67Fxxxxxxxxx

ESE01746-EN6 2019-05

Original manual



*The information herein is correct at the time of issue but may be subject to change without prior notice*

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# 1 General information

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*Unsafe practices and other important information are emphasised in this manual.  
Always read the manual before using the device!*

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## 1.1 Information on the Instruction manual

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This Instruction manual contains important information on proper usage of the device. Read this instruction manual carefully before installing and starting up the pressure measuring device.

Adhere to the safety notes and operating instructions which are given in the instruction manual. Additionally applicable regulations regarding occupational safety, accident prevention as well as national installation standards and engineering rules must be complied with!

This instruction manual is part of the device, must be kept nearest its location, always accessible to all employees.

This instruction manual is copyrighted. The contents of this instruction manual reflect the version available at the time of printing. It has been issued to our best knowledge. However, errors may have occurred. Alfa Laval Kolding A/S is not liable for any incorrect statements and their effects.

- Technical modifications reserved –

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## 1.2 Target group

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### **WARNING**

To avoid operator hazards and damages of the device, the following instructions have to be worked out by qualified technical personnel.

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## 1.3 Limitation of liability

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By non-observance of the instruction manual, inappropriate use, modification or damage, no liability is assumed and warranty claims will be excluded.

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## 1.4 Indended use

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The Alfa Laval Thermometers TE67Fxxxxxxx have, according to the type, been developed for applications in overpressure and vacuum measurement. It is the operator's responsibility to check and verify the suitability of the device for the intended application. If any doubts remain, please contact our local Alfa Laval Company in order to ensure proper usage. Alfa Laval Kolding A/S is not liable for any incorrect selections and their effects.

Permissible media are gases or liquids, specified in the data sheet. In addition it has to be ensured, that this medium is compatible with the media wetted parts.

The technical data listed in the current data sheet are engaging and must be complied with. If the data sheet is not available, please order or download it from our homepage (<http://www.alfalaval.com>).

### **WARNING**

DANGER THROUGH IMPROPER USAGE

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## 1.5 Package contents

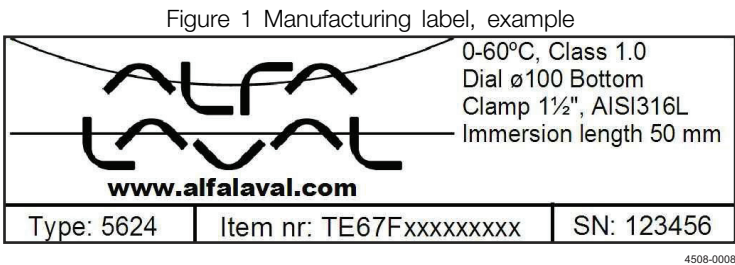
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Please verify that all listed parts are undamaged included in the delivery and check for consistency specified in our order:

- Thermometer
  - Mounting instructions
-

2.1 Manufacturing label

The device can be identified by its manufacturing label. It provides the most important data. By the ordering code the product can be clearly identified.



The manufacturing label must not be removed from the device.

## 3 Mechanical installation

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### 3.1 Mounting and safety instructions

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#### **WARNING**

Install the device only when depressurized and temperature less condition.

#### **WARNING**

This device may only be installed by qualified technical personnel who has read and understood the instruction manual!

- Handle this high-sensitive precision measuring device with care, both in packed and unpacked condition!
  - There are no modification/changes to be made on the device.
  - Do not throw the package/device!
  - To avoid damaging the wetted parts, remove packaging before starting assembly.
  - Handle the unprotected wetted parts very carefully - they are very sensitive and may be easily damaged.
  - Do not use any force when installing the device to prevent damage of the device and the plant!
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### 3.2 General installation steps

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Carefully remove the temperature measuring device from the package and dispose of the package properly.

Go ahead as detailed in the specific instructions below.

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### 3.3 Installation steps for Clamp

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Use a suitable seal corresponding to the medium and the pressure input.

#### **Step 1**

Put the seal onto the corresponding mounting part.

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#### **Step 2**

Center the clamp connection on the fitting counterpart with seal.

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#### **Step 3**

Fit the device with a suitable fastening element (e.g. semi-ring or retractable ring clamp) according to the supplier's instructions.

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## 4 Initial start-up, placing out of service and maintenance

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### 4.1 Initial start-up

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#### **WARNING**

Before start-up, the user has to check for proper installation and for any visible defects.

#### **WARNING**

The device can be started and operated by authorized personnel only, who have read and understood the instruction manual.

#### **WARNING**

The device has to be used within the technical specifications only ! (Compare the data in the data sheet)

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### 4.2 Placing out of service

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#### **WARNING**

Disassemble the device only in pressure and temperature less condition!

#### **WARNING**

Depending on the medium, it may cause danger for the user. Comply therefore with adequate precautions for purification.

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### 4.3 Maintenance

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In principle, this device is maintenance-free. If desired, the housing of the device can be cleaned using a damp cloth and non-aggressive cleaning solutions.

Depending on the measuring medium, however, the wetted parts may be polluted or coated with deposit. Is there a pollution tendency of the medium, the user has to determine the appropriate cleaning interval. After placing the device out of service correctly, the wetted parts can usually be cleaned carefully with a non-aggressive cleaning solution and a soft brush or sponge. If the wetted parts are calcified, it is recommended to send the device to Alfa Laval Kolding for decalcification. Please note the chapter "7.1 Service/repair".

A false cleaning of the device can cause an irreparable damage on the wetted parts. Therefore never use pointed objects or pressure air for cleaning the wetted parts.

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## 5 Technical data

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### 5.1 Specifications

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Case material	AISI 304
Window	PC (unbreakable)
Bezel	AISI 304
Liquid filling	Glycerine
Sensing element	Stainless steel AISI 316 L
Connection material	AISI 316 L
Accuracy	Class 1 acc. to EN 13190: 2001
Approvals	Conforms to EN 13190: 2001

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### 5.2 Measuring range (Celsius/Fahrenheit)

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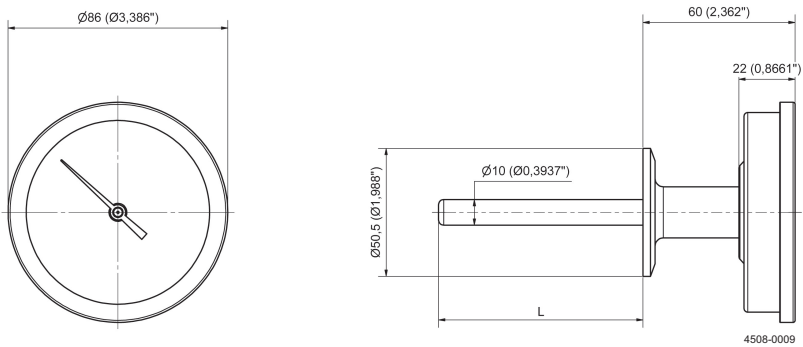
Degrees Celsius/Fahrenheit	L
-20 to +120°C (0 to 250°F)	50mm (1,969in)
0 to 60 (35 to 140°F)	100mm (3,937in)
0 to 100 (35 to 210°F)	150mm (5,906in)
0 to 120 (35 to 250°F)	200mm (7,874in)
0 to 160 (35 to 320°F)	250mm (9,843in)
0 to 200 (35 to 390°F)	300mm (11,810in)

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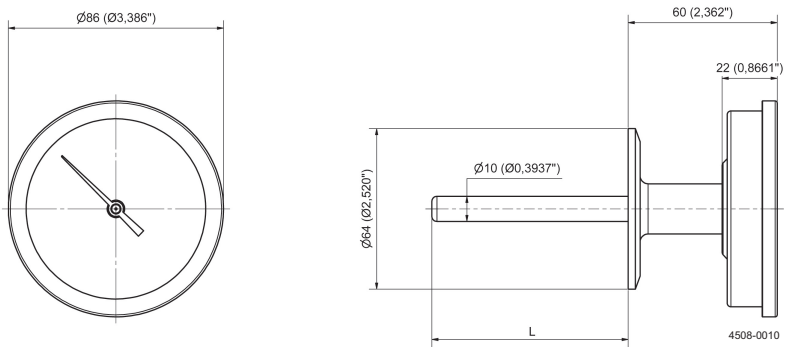


5.3 Dimensional drawings

TE67FX1xxx2xxx Dial 80 mm, Clamp 38

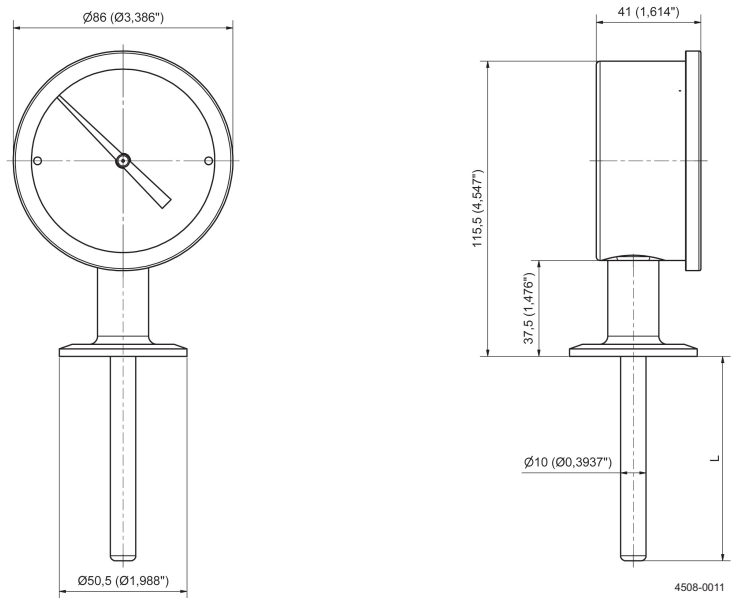


TE67FX2xxx2xxx Dial 80 mm, Clamp 51

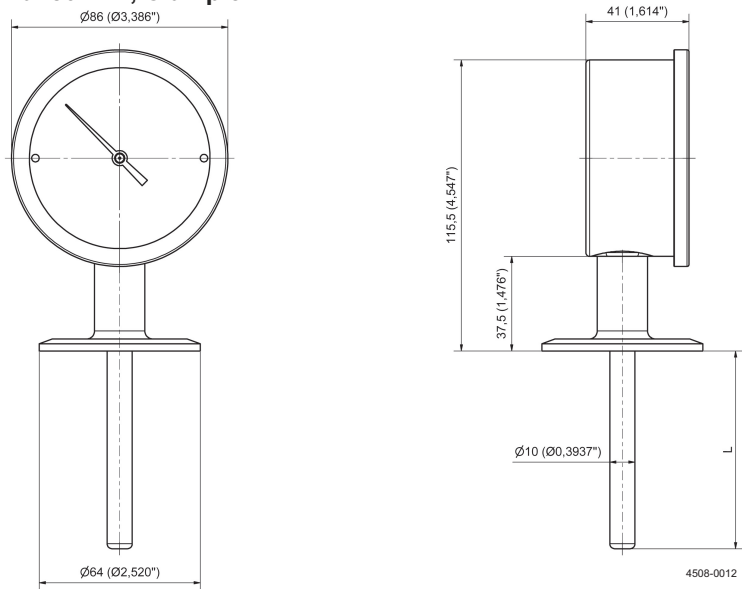


5 Technical data

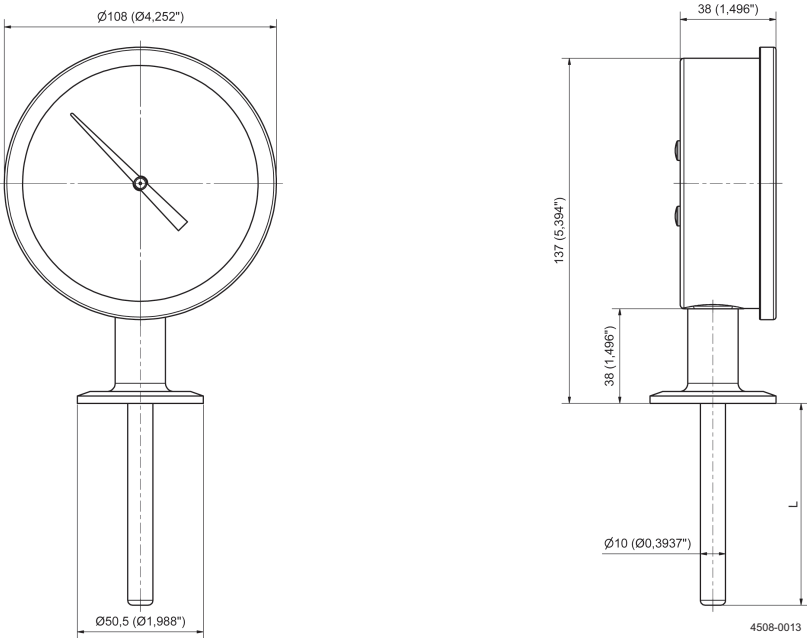
TE67FX1xxx1xxx Dial 80 mm, Clamp 38



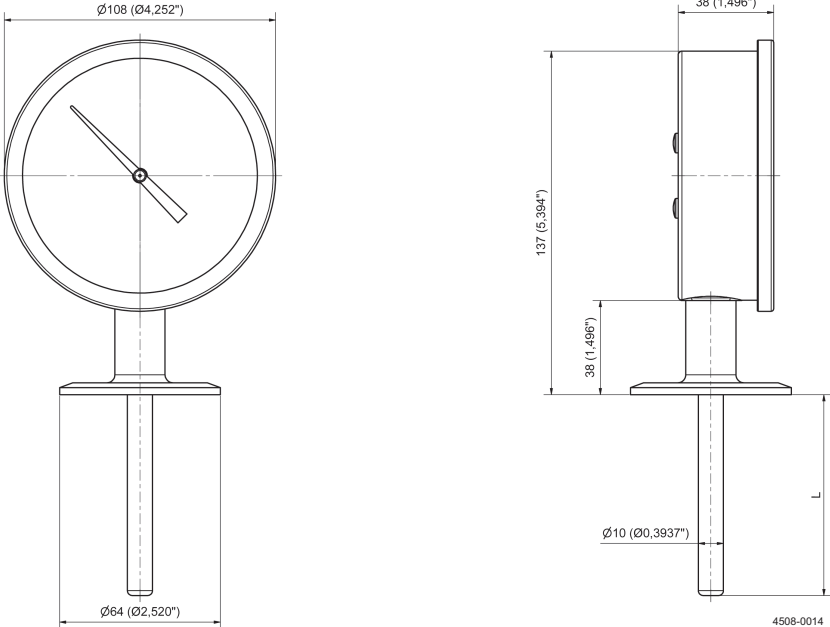
TE67FX2xxx1xxx Dial 80 mm, Clamp 51



TE67FX2xxx1xxx Dial 100 mm, Clamp 38

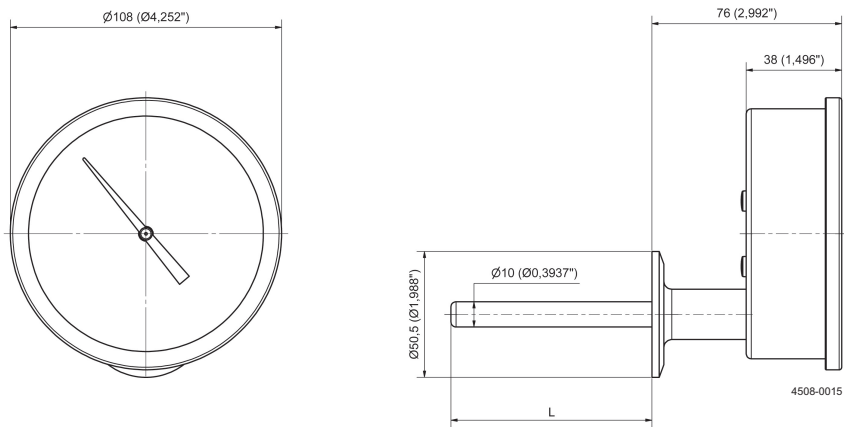


TE67FX2xxx1xxx Dial 100 mm, Clamp 51

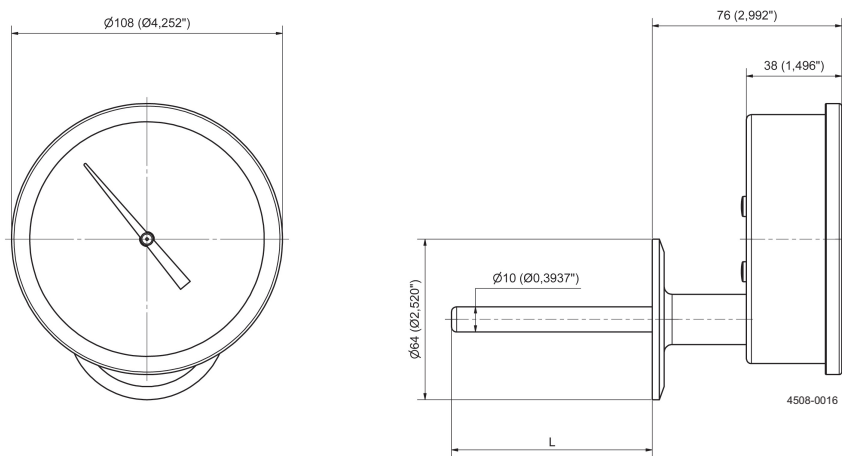


5 Technical data

TE67FX1xxx2xxx Dial 100 mm, Clamp 38



TE67FX2xxx2xxx Dial 100 mm, Clamp 51



## 6.1 Ordering key table

Ordering Key Table	Thermometer	
Description	Option	Item number code
Measuring Range	0 to 60°C	TE67F1xxxxxxxx
	0 to 100°C	TE67F3xxxxxxxx
	0 to 120°C	TE67F5xxxxxxxx
	0 to 160°C	TE67F7xxxxxxxx
	0 to 200°C	TE67F8xxxxxxxx
	-20 to 120 °C	TE67F9xxxxxxxx
Process Connection	Clamp DN 38 (ISO2852) / Clamp DN 40 (DIN32676)	TE67Fx1xxxxxx
	Clamp DN 50 (ISO2852) / Clamp DN 51 (DIN32676)	TE67Fx2xxxxxx
Surface Finish Wetted Parts	Ra<0,8μ	TE67Fxx1xxxxx
	Ra<0,4μ (Electropolished)	TE67Fxx2xxxxxx
Sensor Length	0 cm	TE67Fxxx0xxxxx
	10 cm	TE67Fxxx1xxxxx
	20 cm	TE67Fxxx2xxxxx
	30 cm	TE67Fxxx3xxxxx
Sensor length	0 cm	TE67Fxxx0xxxx
	5 cm	TE67Fxxx5xxxx
Sensor Outlet	bottom	TE67Fxxxx1xxx
	back	TE67Fxxxx2xxx
Accuracy	Class 1	TE67Fxxxxx1xx
Others	Dial Ø80, Scale: °C	TE67Fxxxxxx1x
	Dial Ø100, Scale °C	TE67Fxxxxxx2x
	Dial Ø80, Scale: Fahrenheit	TE67Fxxxxxx3x
	Dial Ø100, Scale Fahrenheit	TE67Fxxxxxx4x

## 6.2 Available certificates

Ordering key table	Certificate types	Item number code
	Calibration Certificate	TE67Fxxxxxxxx1
	3.1 Certificate	TE67Fxxxxxxxx2
	Calibration Certificate + 3.1. Certificate	TE67Fxxxxxxxx6
	N/A	TE67Fxxxxxxxx0

3-A Certificate Authorization number: 1612

A copy of the certificate can be downloaded from 3-A Sanitary Standards, Incorporated: <http://www.3-a.org/>

## 7 Service/repair, warranty conditions and contact information

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### 7.1 Service/repair

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Upon every return of a product, no matter if for modifications or repair, it is necessary to contact your local Alfa Laval office to guarantee a quick execution of your request.

You will receive instructions regarding the return procedure from your local Alfa Laval office. Be sure to follow the instructions closely.

### 7.2 Warranty conditions

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The warranty conditions are subject to the legal warranty period of 12 months from the date of delivery. In case of improper use, modifications of or damages to the device, we do not accept warranty claims. Damaged wetted parts will also not be accepted. Furthermore, defects due to normal wear are not subject to warranty services.

### 7.3 How to contact Alfa Laval Kolding A/S

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For further information please feel free to contact:

**Alfa Laval Kolding A/S**

31, Albuen - DK 6000 Kolding - Denmark

Registration number: 30938011

Tel switchboard: +45 79 32 22 00 - Fax switchboard: +45 79 32 25 80

[www.toftejorg.com](http://www.toftejorg.com), [www.alfalaval.dk](http://www.alfalaval.dk) - [info.dk@alfalaval.com](mailto:info.dk@alfalaval.com)

Contact details for all countries are continually updated on our websites



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