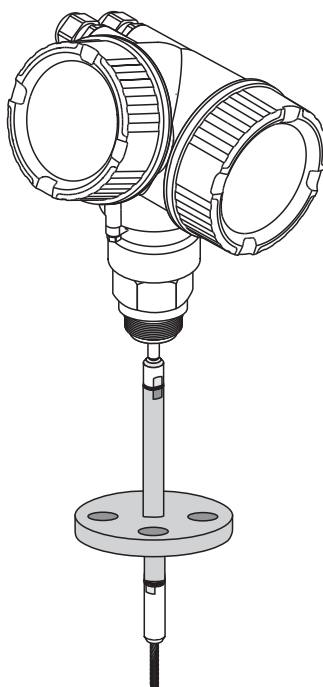


# Special documentation

## **Levelflex FMP54/FMP57**

Guided wave radar

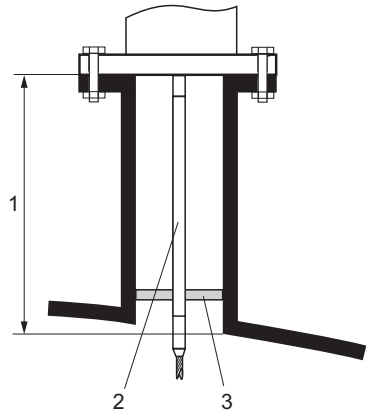
Rod extension / Centering HMP40





# 1 Usage

When the Levelflex is installed in nozzles DN40-250 (1-1/2" - 10") with a nozzle height > 150mm/6", there is the risk of the probe touching the bottom edge of the nozzle due to material movement in the container and this can result in malfunctioning. For this reason it is necessary to use an extension rod with or without a centering disk to avoid the contact.

This accessory consists of the extension rod (2) corresponding to the nozzle height (1), on which a centering disk (3) is also mounted if the nozzles are narrow or when working in bulk solids.



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-  When ordering Levelflex please note that the probe length minus the length of the extension rod is ordered as otherwise the rope would have to be shortened.
-  Only use centering disks with small diameters (DN40/DN50) if there is no significant build-up in the nozzle above the disk. The nozzle must not become clogged.

# 2 Technical data

Admissible temperature range (without center washer)	no restrictions
Admissible temperature range (with center washer)	-40 to 150 °C (-40 to 302 °F) at the lower edge of the nozzle. <sup>1)</sup>
Material of extension rod	1.4404 (316L)
Material of centering disk	PPS GF40

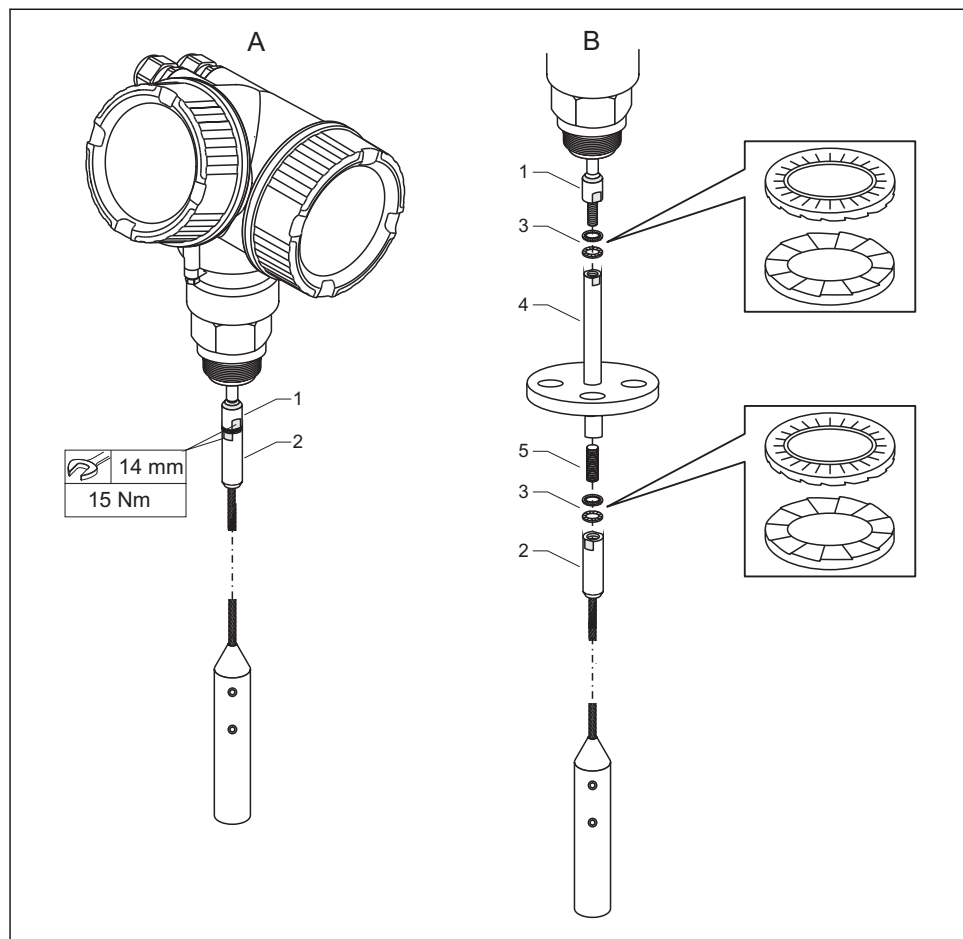
1) There may be further restrictions depending on the process seal of the Levelflex. Please refer to the corresponding Technical Information: TI01001F (FMP54), TI01004F (FMP57).

## 3      **Ordering information**

### 3.1      **Scope of delivery**

- 1 extension rod with 2 internal threads M10x1 (with or without center disk, depending on the order)
- 1 setwcrew M10x1
- 2 sets of Nord-Lock washers
- Mounting instructions (this document)

## 4 Mounting



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A Without rod extension/centering HMP40

B With rod extension/centering HMP40

1 Counter nut

2 Rope connection

3 Nord-Lock washers (two sets containing two washers each)

4 Extension rod (with or without center disk, depending on the order)

5 Setscrew M10x1

### 4.1 Required tools

- 1 open-end wrench SW14 (14 AF)
- 1 torque wrench SW14 (14 AF)

## 4.2 Unmounting the rope probe

1. Open the setscrew connection between the counter nut (1) and the rope connection (2) using two wrenches (AF14).
2. Unscrew the probe with the rope connection (2) from the setscrew of the device.

## 4.3 Mounting the extension rod

1. Carefully tighten the counter nut (1) until the stop at the setscrew of the device.
2. Screw the extension rod (4) with a set of Nord-Lock washers (3) into the setscrew of the device and tighten firmly using an open-end wrench and a torque wrench. The maximum torque of 15 Nm must be observed!
3. Screw the setscrew (5) into the extension rod (4) until the stop.
4. Use the second set of Nord-Lock washers (3) to screw down the rope connection (2) at the setscrew (5) of the extension rod and tighten the screw connection with the aid of an open-end wrench AF14 and a torque wrench. The maximum torque of 15 Nm must be observed!

## 4.4 If required: Shorten the rope probe

Instructions for shortening the rope probe can be found in the Levellflex Operating Instructions:

- FMP54: BA01001F (HART); BA01006F (PROFIBUS PA); BA01052F (FOUNDATION Fieldbus)
- FMP57: BA01004F (HART); BA01009F (PROFIBUS PA); BA01055F (FOUNDATION Fieldbus)

## 5 Commissioning of the Levelflex

### 5.1 Probe length correction

After mounting the extension rod, an automatic or manual probe length correction must be performed. This is done with the aid of the following submenu in the operating menu of the Levelflex.

#### **Setup → Advanced setup → Probe length correction**

For details refer to the Levelflex Operating Instructions:

- FMP54: BA01001F (HART); BA01006F (PROFIBUS PA); BA01052F (FOUNDATION Fieldbus)
- FMP57: BA01004F (HART); BA01009F (PROFIBUS PA); BA01055F (FOUNDATION Fieldbus)

### 5.2 Setup

After mounting the extension rod, a new calibration of the measuring point is required in any case. This is performed by means of the **Setup** submenu.

When doing so, it is especially important that the full distance F (Parameter **Full calibration**) does not range into the nozzle.

For details refer to the Levelflex Operating Instructions:

- FMP54: BA01001F (HART); BA01006F (PROFIBUS PA); BA01052F (FOUNDATION Fieldbus)
- FMP57: BA01004F (HART); BA01009F (PROFIBUS PA); BA01055F (FOUNDATION Fieldbus)

### 5.3 Interference echo suppression (mapping)

After mounting the extension rod, a mapping curve must also be recorded again. This is performed by the **Setup → Mapping** submenu. The mapping distance (Parameter **Mapping end point**) must at least be the nozzle height plus 20 cm (8").

### 5.4 Setting the upper blocking distance

The upper blocking distance must be equal to or longer than the nozzle height. It is defined in the following parameter:

- For level measurements:  
**Setup → Advanced setup → Level → Blocking distance**
- Bei Trennschichtmessungen:  
**Setup → Advanced setup → Interface → Blocking distance**

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