

Technical Information

FAR50

Weld-in nozzle with PTFE plug and counter flange with venting element



Standard adapter for welding, simple maintenance

Application

- Process adapter for the Soliwave microwave barrier and the Solimotion flow indicator
- Reliable separation of measuring device and process

Properties

- Process temperature: -40 to +200 °C (-40 to +392 °F)
- Process pressure: 0.8 to 1.1 bar (12 to 16 psi) absolute
- Length of the adapter (nozzle) up to 300 mm (11.81 in)
- Material:
 - Nozzle and counter flange: Steel or stainless steel
 - Plug: PTFE

Your benefits

- Simple maintenance through fast disassembly of counter flange and easy cleaning or replacement of the plug
- Devices of the Soliwave microwave barrier and the Solimotion flow indicator can easily be replaced during ongoing production
- Plug material ideally suited for microwaves
- Counter flange with venting element to prevent condensation
- No wear on the installed devices
- Special versions (dimensions and material) are available on request

Table of contents

About this document	3
Symbols	3
Performance characteristics	3
Operating conditions	3
Material	3
Device connection	4
Mechanical construction	4
Dimensions	4
Weight	5
Installation conditions	5
Mounting position	5
Installation instructions	5
Mounting	6
Mounting	6
Ordering information	6

About this document

Symbols

Safety symbols



This symbol alerts you to a dangerous situation. Failure to avoid this situation will result in serious or fatal injury.



This symbol alerts you to a dangerous situation. Failure to avoid this situation can result in serious or fatal injury.



This symbol alerts you to a dangerous situation. Failure to avoid this situation can result in minor or medium injury.



This symbol contains information on procedures and other facts which do not result in personal injury.

Symbols for certain types of information



Permitted
Procedures, processes or actions that are permitted.



Forbidden
Procedures, processes or actions that are forbidden.



Tip
Indicates additional information



Reference to documentation



Reference to another section



Reference to graphic



1, 2, 3 ... Series of steps

Symbols in graphics

A, B, C ... View

1, 2, 3 ... Item numbers

Performance characteristics

Operating conditions

Process temperature

-40 to +200 °C (-40 to +392 °F)

Process pressure

0.8 to 1.1 bar (12 to 16 psi) absolute



- The accepted continuous operating temperature for PTFE is -200 to +240 °C (-328 to +464 °F), however material deformation occurs below and above the defined process temperature.
- The maximum process temperature given is guaranteed for operation without noteworthy pressure strain (pressureless).
- The maximum allowable temperature at the device has to be observed in any case!

Material

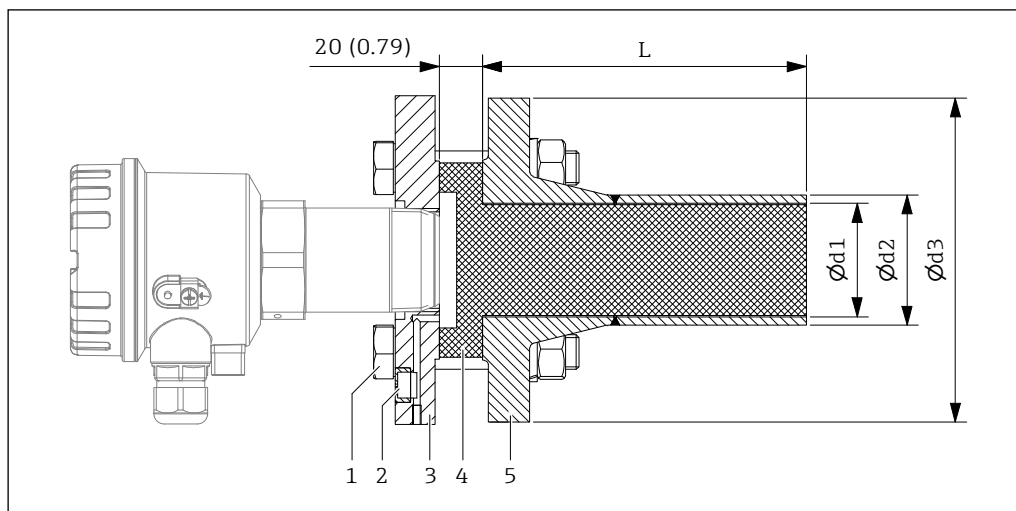
- Nozzle:
 - Stainless steel 316Ti (1.4571),
 - Stainless steel 316L (1.4404) or
 - Steel 1.0345 (P235GH)

- Counter flange: Stainless steel or steel (depending on the nozzle material)
- Plug: PTFE
- Mounting material: Steel, galvanized

Device connection

Suitable for the devices of the Soliwave microwave barrier and the Solimotion flow indicator, the following threads are available:

- R 1½ in accordance with EN 10226
- 1½ NPT in accordance with ANSI/ASME
- G 1½ in accordance with ISO 228-1

Mechanical construction**Dimensions**

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1 Dimensions. Unit of measurement mm (in)

- 1 Mounting screws
- 2 Pressure equalization element
- 3 Counter flange
- 4 Plug
- 5 Weld-in nozzle

Available weld-in nozzle	d1 mm (in)	d2 mm (in)	d3 mm (in)	L mm (in)
DN50 PN16	54.5 (2.15)	60.3 (2.38)	165.0 (6.50)	100 (3.94) 150 (5.91) 200 (7.87) 250 (9.84) 300 (11.81)
DN65 PN16	70.3 (2.77)	76.1 (3.00)	185.0 (7.28)	
DN80 PN16	82.5 (3.25)	88.9 (3.50)	200.0 (7.87)	
DN100 PN16	107.1 (4.22)	114.3 (4.50)	220.0 (8.66)	
2" 150 lbs B16.5	52.6 (2.07)	60.3 (2.38)	152.4 (6.00)	
3" 150 lbs B16.5	78.0 (3.07)	88.9 (3.50)	190.5 (7.50)	
4" 150 lbs B16.5	102.4 (4.03)	114.3 (4.50)	228.6 (9.00)	

Weight

The weight depends on diameter and length, for example:

- FAR50-GQ2CF22A
Weld-in nozzle DN50 PN16 form B, flange EN 1092-1, L1 = 150 mm (5.91 in), device connection R 1½ in accordance with EN 10226
Weight 6.2 kg (13.7 lb)
- FAR50-AG2CI22B
Weld-in nozzle NPS 4" Cl. 150 RF, flange ASME B16.5, L1 = 300 mm (11.81 in), device connection 1½ NPT in accordance with ANSI/ASME
Weight 27.6 kg (60.4 lb)

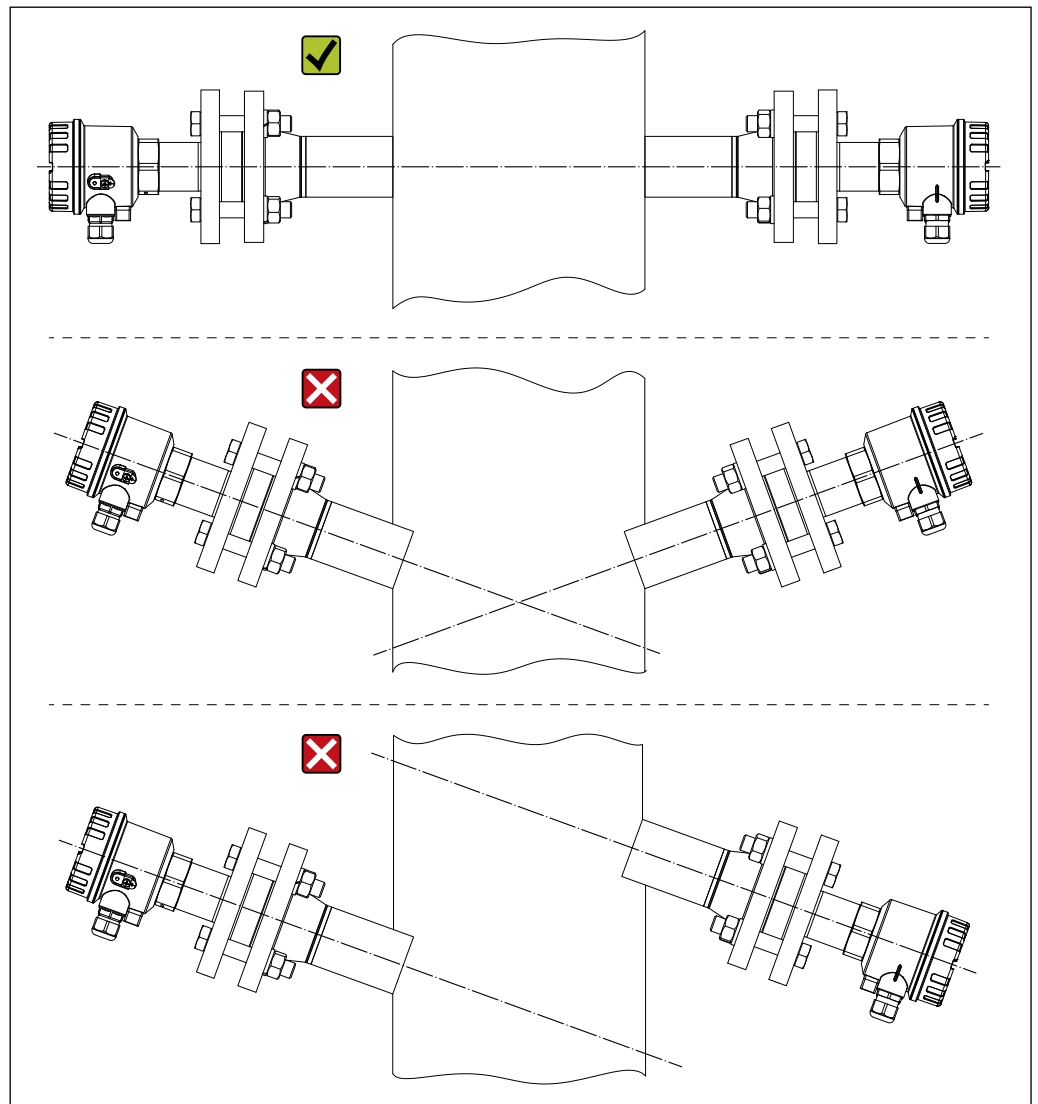
Installation conditions

Mounting position

- The weld-in nozzle can be installed in any position.
- Provide suitable clearance for installation and removal of the plug and measuring devices.

Installation instructions

- When using the adapter with the microwave barrier Soliwave, it is essential to ensure that the devices FDR and FQR can be mounted directly opposite each other (see relevant Technical Information as well).
- The chemical resistance of the PTFE plug under process conditions must be taken into account.



2 Installation instructions

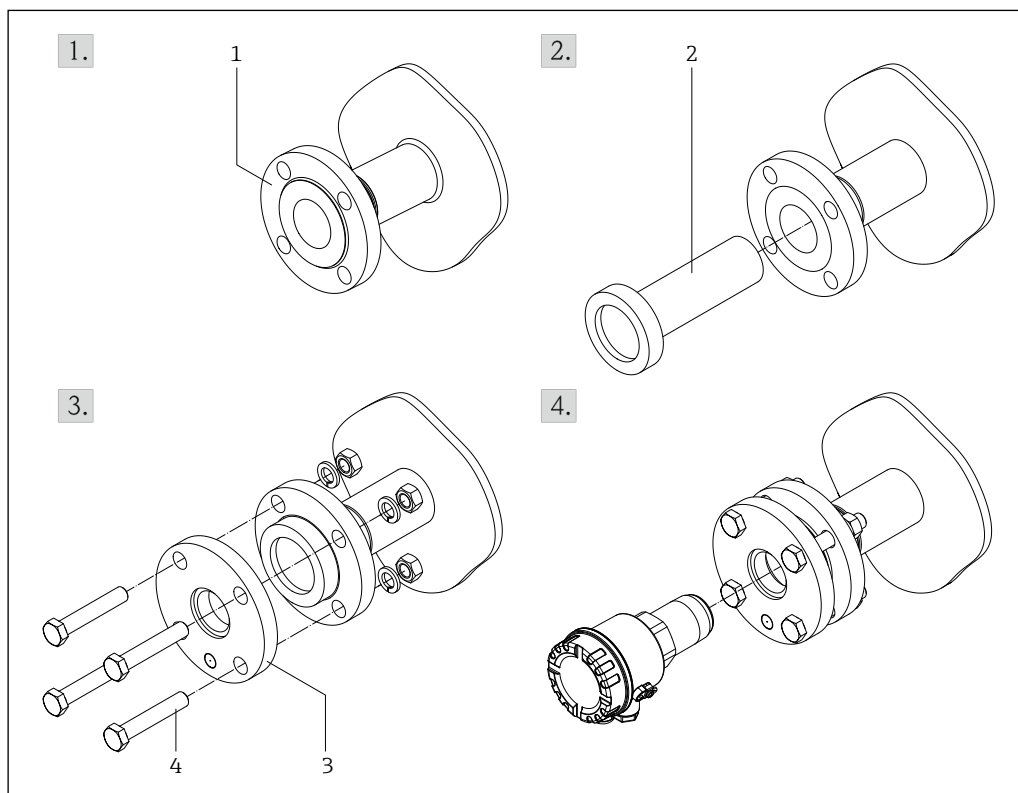
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Mounting

Mounting

The installation of the adapter is done in four steps:

1. Weld the nozzle into the process wall
2. Insert PTFE plug carefully
3. Install counter flange
4. Install and arrange the devices of the Soliwave microwave barrier or the Solimotion flow indicator



0000000131

3 Mounting

- 1 Weld-in nozzle
- 2 Plug
- 3 Counter flange
- 4 Mounting screws enclosed



The general notes on the installation and alignment of process adapters in the technical information of the device to be connected must be observed.

Ordering information

Detailed ordering information is available from the following sources:

- In the Product Configurator on the Endress+Hauser website: www.endress.com → Click "Corporate" → Select your country → Click "Products" → Select the product using the filters and search field → Open product page → The "Configure" button to the right of the product image opens the Product Configurator.
- Endress+Hauser sales center: www.addresses.endress.com



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020	Flange nozzle
AD2	NPS 2" CL.150 RF, flange ASME B16.5
AF2	NPS 3" CL.150 RF, flange ASME B16.5
AG2	NPS 4" CL.150 RF, flange ASME B16.5
GQ2	DN50 PN16 form B1, flange EN1092-1
GR2	DN65 PN16 form B1, flange EN1092-1
GS2	DN80 PN16 form B1, flange EN1092-1
GT2	DN100 PN16 form B1, flange EN1092-1
030	Nozzle length L1
CA	100 mm (3.94 in)
CF	150 mm (5.91 in)
CG	200 mm (7.87 in)
CH	250 mm (9.84 in)
CI	300 mm (11.81 in)
050	Material plug
2	PTFE
060	Material flange nozzle
1	Steel 1.0345 (P235GH) / 1.0460 (P250GH)
2	Stainless steel 316Ti (1.4571)
3	Stainless steel 316L (1.4404)
070	Device connection
A	Thread R 1½ in accordance with EN 10226
B	Thread 1½ NPT in accordance with ANSI/ASME
C	Thread G 1½ in accordance with ISO 228-1

www.addresses.endress.com

For more Endress+Hauser product please visit: www.ainstru.com
Mail: Sales@ainstru.com