

Technical Information

Flowfit CPA240

Flow assembly for 12 mm sensors



For very demanding processes

Application

- Chemical industry, e.g. in
 - production of synthetic materials and dyes
 - production of pesticides and fertilizers
 - oil or wastewater separation
 - condensate treatment
- Power stations and incinerator plants, e.g. in
 - cooling water monitoring
 - flue gas cleaning
- Metal extraction and metal processing

Your benefits

- Up to three sensor mounting slots for 12-mm sensors (length: 120 mm)
- Easy installation and removal of the sensor holder
- Reliable sealing even in media containing solid particles
- Suitable for use at high pressures and temperatures
- Wide variety of process connections ensures flexible connection to the process

Function and system design

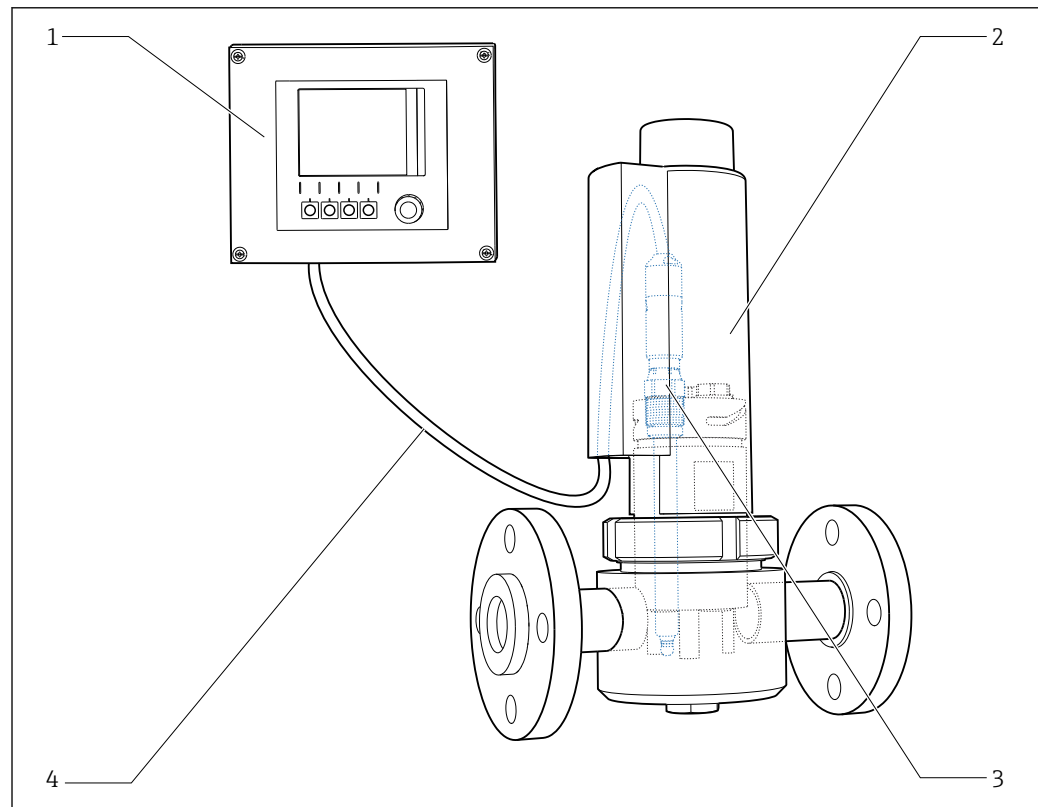
Measuring system

A complete measuring system comprises:

- Flow assembly Flowfit CPA240
- 1-3 12 mm, pH/ORP combined sensors or temperature sensors, e.g. CPS11D, CPS12D
- 1-3 measuring cables, e.g. CYK10 or CPK9
- Transmitter, e.g. Liquiline CM442

Optional:

- Extension cable, e.g. CYK11
- Junction box, e.g. VBM



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1 Example of a measuring system (process and process connections are not illustrated)

- 1 Transmitter CM442
 2 Flow assembly Flowfit CPA240, here as PVDF version
 3 pH sensor CPS11D
 4 Sensor cable CYK10

Environment

Ambient temperature -10 to +70 °C (+10 to +160 °F)

Storage temperature -10 to +70 °C (+10 to +160 °F)

Process

Process temperature	PVDF version	0 to 120 °C (32 to 250 °F)
	Stainless steel version	-15 to 150 °C (5 to 300 °F), for all seals except EPDM -15 to 140 °C (5 to 280 °F), for EPDM seal

Process pressure

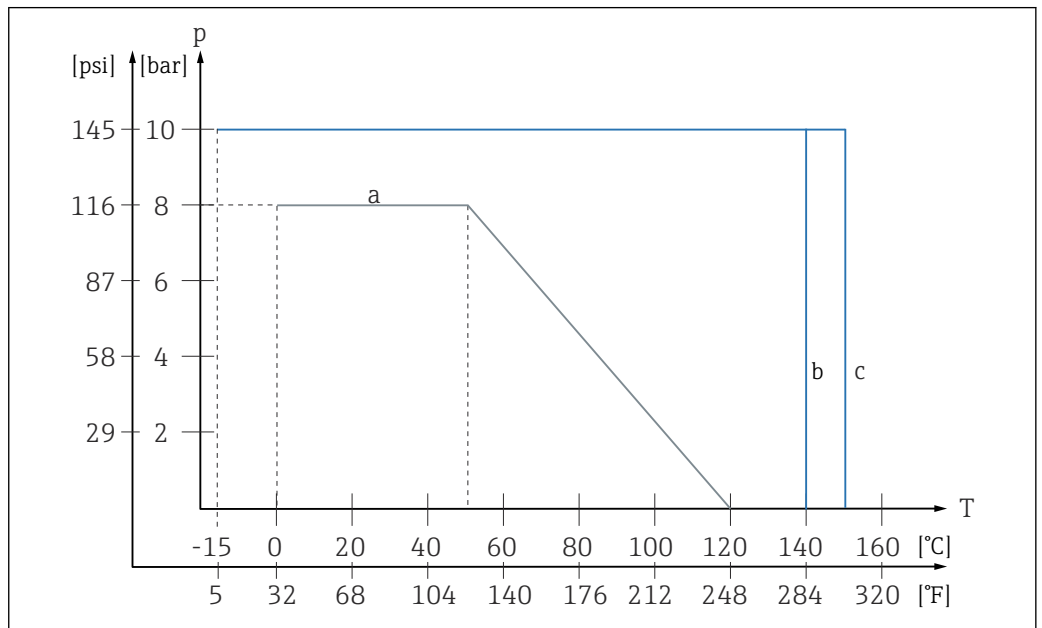
PVDF version

Max. 8 bar (116 psi) at 50 °C (122 °F)

Stainless steel version

Max. 10 bar (145 psi)

Pressure/temperature ratings



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2 Pressure-temperature ratings

a PVDF version

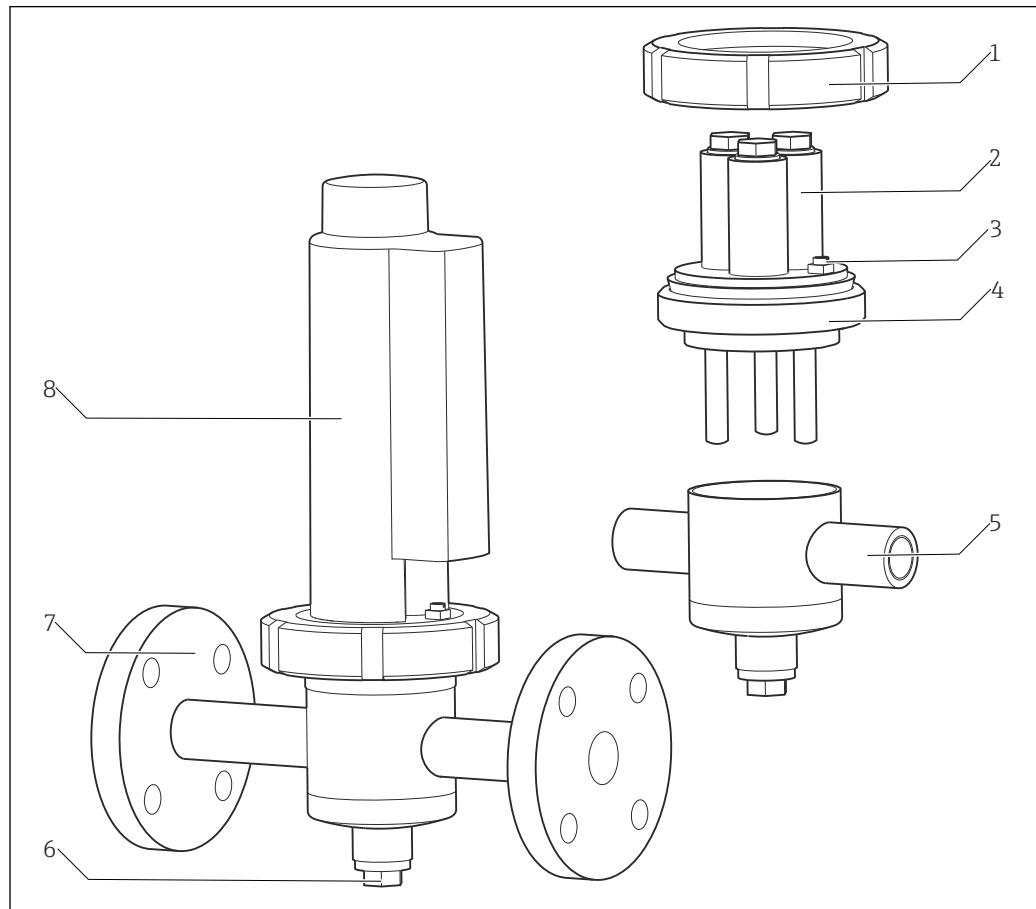
b Stainless steel version with EPDM seal

c Stainless steel version, all seals except EPDM

Mechanical construction

Design

Stainless steel version

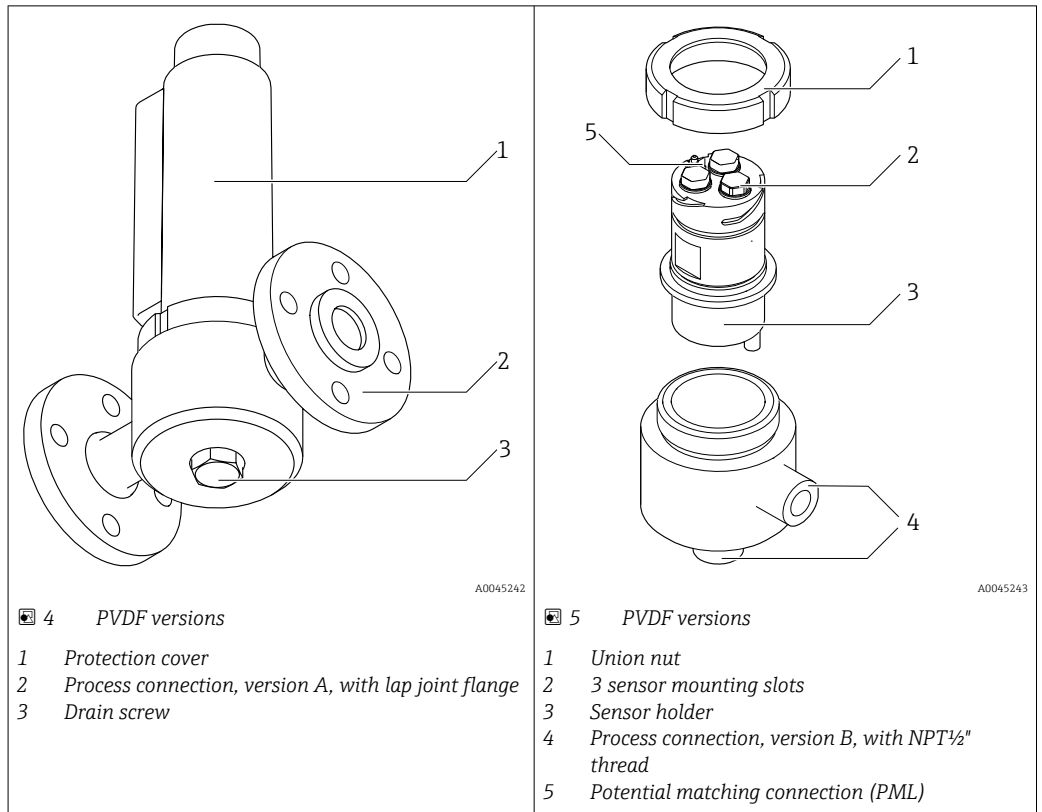


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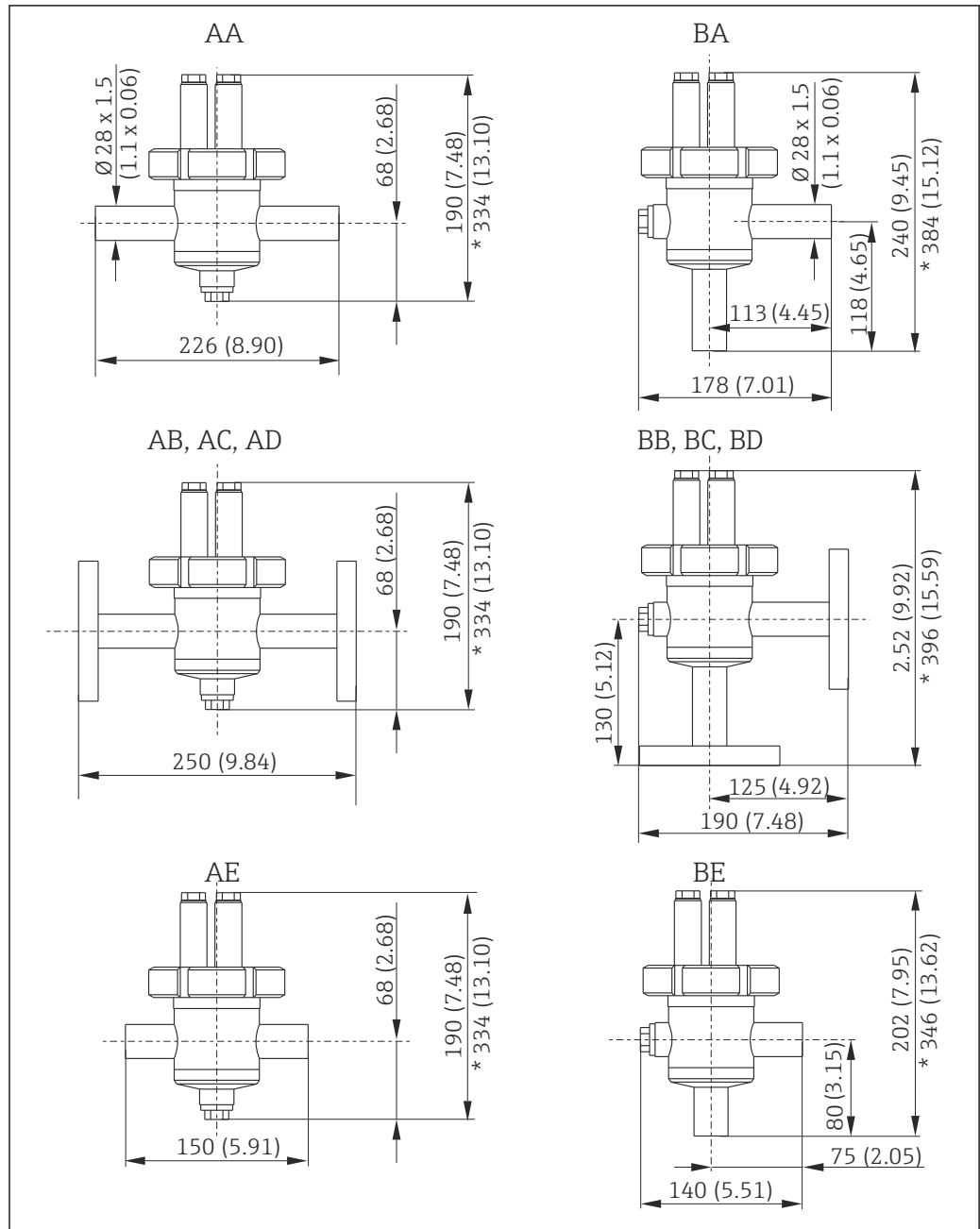
3 Stainless steel versions

- 1 Union nut
- 2 3 sensor mounting slots
- 3 Potential matching connection (PML)
- 4 Sensor holder
- 5 Process connection, version A, with NPT $\frac{1}{2}$ " thread
- 6 Drain screw
- 7 Process connection, version A, with fixed flange
- 8 Protection cover

PVDF version



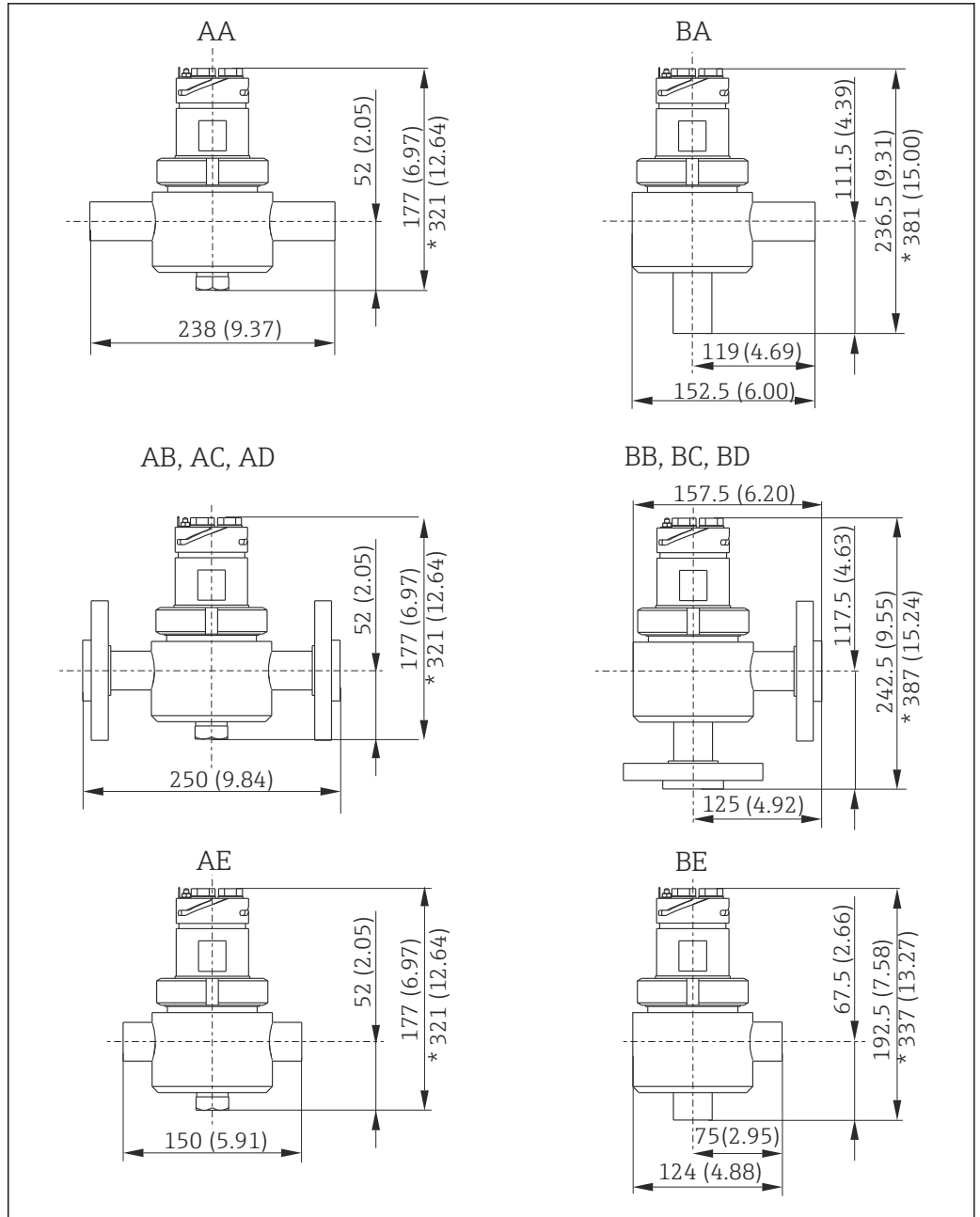
Dimensions



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6 Stainless steel version, dimensions in mm (in)

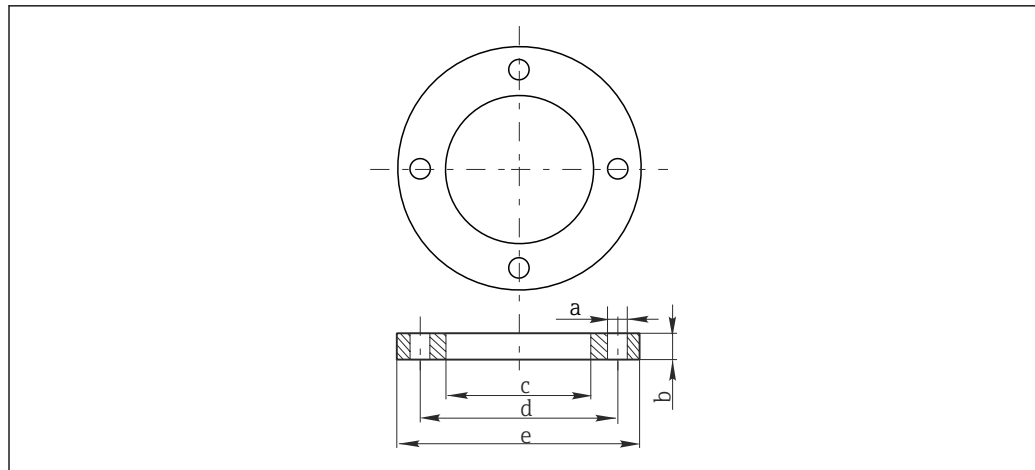
* With protection cover



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7 PVDF version, dimensions in mm (in)

* With protection cover



8 Flange dimensions, → Table

	Stainless steel assembly version			PVDF assembly version		
	DN25 PN16	ANSI 1" 150 lbs	JIS 10K 25A	DN25 PN16	ANSI 1" 150 lbs	JIS 10K 25A
a [mm (in)]	14 (0.55)	16 (0.63)	19 (0.75)	14 (0.55)	16 (0.63)	19 (0.75)
b [mm (in)]	14 (0.55)	14 (0.55)	14 (0.55)	14 (0.55)	14 (0.55)	14 (0.55)
c [mm (in)]				42 (1.65)	42 (1.65)	42 (1.65)
d [mm (in)]	85(3.35)	79 (3.11)	90 (3.54)	85(3.35)	79 (3.11)	90 (3.54)
e [mm (in)]	115 (4.53)	108 (4.25)	125 (4.92)	115 (4.53)	115 (4.53)	125 (4.92)
Screws	M12	M12	M16	M12	M12	M16
Bore holes	4	4	4	4	4	4

Weight

Depends on version (material):

PVDF 2.0 kg (4.4 lbs)

Stainless steel 3.0 to 4.5 kg (6.6 to 9.9 lbs)

Materials

In contact with medium, depending on version

Flow vessel	PVDF / stainless steel 1.4404 (AISI 316L)
O-rings	EPDM / VITON / Chemraz / Fluoraz
Sensor holder	PVDF / stainless steel 1.4404 (AISI 316L)
Potential matching pin	Alloy C4 / tantalum / stainless steel 1.4401 (AISI 316)
Shock-protection stud	PVDF / stainless steel 1.4401 (AISI 316)
Dummy plug	PEEK

Not in contact with medium

Protection cap	PES
Union nut	Stainless steel 1.4404 (AISI 316L)

Process connections

Depending on version:

- Weld-in adapter, pipe DN 25 (Ø 28 x1.5)
- Flange DN 25 PN 16
- Flange ANSI 1" / 150 lbs
- Flange JIS 10K 25A
- NPT 1/2" thread

Sensor mounting slots

3 x Pg 13.5 12-mm sensors



For max. 3 sensors. Fewer in the case of sensors filled with KCl, for example.

Sensor length: 120 mm



Pay attention to the maximum flow velocities of the sensors.

Ordering information

Product page

www.endress.com/cpa240

Product Configurator

On the product page there is a **Configure** button to the right of the product image.

1. Click this button.

↳ The Configurator opens in a separate window.

2. Select all the options to configure the device in line with your requirements.

↳ In this way, you receive a valid and complete order code for the device.

3. Export the order code as a PDF or Excel file. To do so, click the appropriate button on the right above the selection window.



For many products you also have the option of downloading CAD or 2D drawings of the selected product version. Click the **CAD** tab for this and select the desired file type using picklists.

Scope of delivery

The scope of delivery comprises:

- Ordered version of assembly
- Operating Instructions

► If you have any queries:

Please contact your supplier or local sales center.

Accessories

The following are the most important accessories available at the time this documentation was issued.

- ▶ For accessories not listed here, please contact your Service or Sales Center.

Sensors (selection)

Orbisint CPS11D

- pH sensor for process technology
- With dirt-repellent PTFE diaphragm



Technical Information TI00028C

Ceraliquid CPS41D

pH electrode with ceramic junction and KCl liquid electrolyte



Technical Information TI00079C

Orbisint CPS12D

ORP sensor for process technology



Technical Information TI00367C

Ceraliquid CPS42D

ORP electrode with ceramic junction and KCl liquid electrolyte



Technical Information TI00373C

Memosens CPS16D

- Combined pH/ORP sensor for process technology
- With dirt-repellent PTFE diaphragm
- With Memosens technology
- Product Configurator on the product page: www.endress.com/cps16D



Technical Information TI00503C

Memosens CLS82D

- Four-electrode sensor
- With Memosens technology
- Product Configurator on the product page: www.endress.com/cls82d



Technical Information TI01188C

Memosens COS81D

- Sterilizable, optical sensor for dissolved oxygen
- With Memosens technology
- Product Configurator on the product page: www.endress.com/cos81d



Technical Information TI01201C

Oxymax COS22D

- Sterilizable sensor for dissolved oxygen
- With Memosens technology
- Product Configurator on the product page: www.endress.com/cos22d



Technical Information TI00446C

Measuring cable

Memosens data cable CYK10

- For digital sensors with Memosens technology
- Product Configurator on the product page: www.endress.com/cyk10



Technical Information TI00118C

Memosens data cable CYK11

- Extension cable for digital sensors with Memosens protocol
- Product Configurator on the product page: www.endress.com/cyk11



Technical Information TI00118C

Measuring cable CPK9

- Terminated measuring cable for connecting analog sensors with TOP68 plug-in head
- Selection in accordance with product structure
- Product Configurator on the product page: www.endress.com/cpk9



Technical Information TI00118C

KCl supply vessel

Electrolyte vessel CPY7B

- Storage container for KCl electrolyte, 200 ml
- Product Configurator on the product page: www.endress.com/cpy7b



Operating Instructions BA00128C



www.addresses.endress.com
