

Immersion Assembly for pH and Redox Sensors *DipFit P CPA 140*

**Immersion assembly with flange connection for
demanding processes.
Sensor holder with bayonet lock**



Areas of application

- pH/Redox measurements in the chemical industry, for example for
 - production of synthetic materials and dyes,
 - production of pesticides and fertilisers;
- pH/Redox measurements in the petrochemical industry, for example for
 - separation of oil and waste water,
 - treatment of condensates;
- pH measurements in the pharmaceutical and cosmetic industries, for example for
 - production of soap,
 - production of proteins,
 - lipolysis;
- pH/Redox measurements in power plants and waste incinerating plants, for example for
 - monitoring of cooling water,
 - scrubbing of exhaust gases;
- pH/Redox measurements in extractive metallurgy and metal processing

Benefits at a glance

- Simple installation and removal of the electrode holder due to the bayonet mounting method
- Good sealing, even in media containing solid particles, due to the bayonet mounting method
- Suitable for use at high pressures and temperatures (up to 10 bar and max. 150 °C)
- Immersion length from 500 to 2500 mm
- Integrated potential matching pin made of Hastelloy C4 or tantalum
- Reduced condensation due to an active-breathing Goretex® filter
- Three mounting positions for pH, Redox and temperature sensors plus a cleaning head
- Spray and ultrasonic cleaning can be retrofitted easily
- Flexible connection to the process by means of various flanges (DIN, ANSI, JIS)

Quality made by
Endress+Hauser



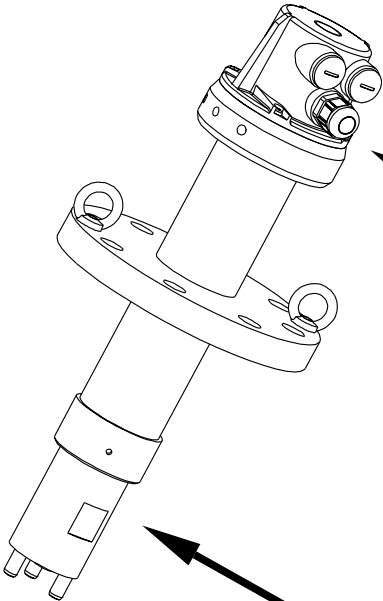
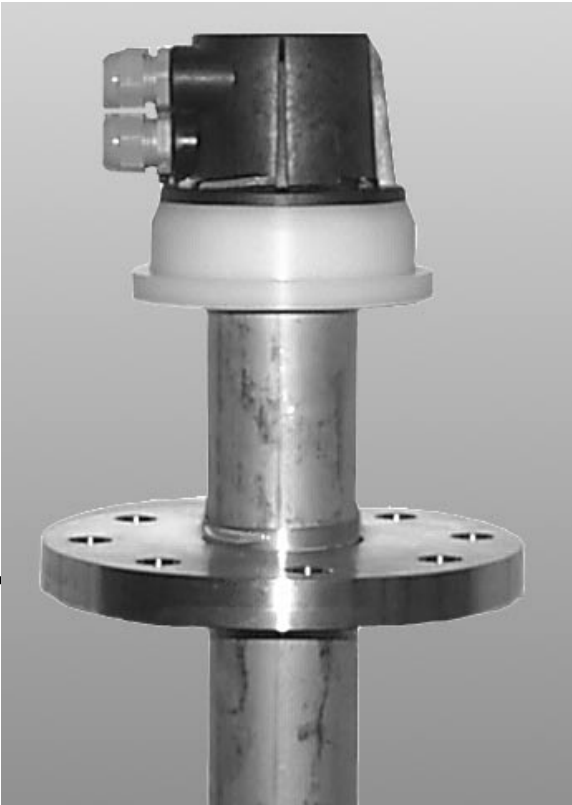
ISO 9001

Endress + Hauser

Nothing beats know-how

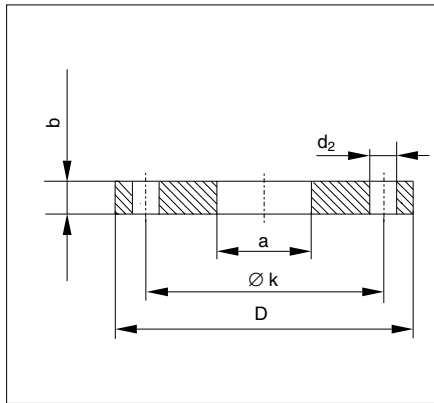


Stainless steel version



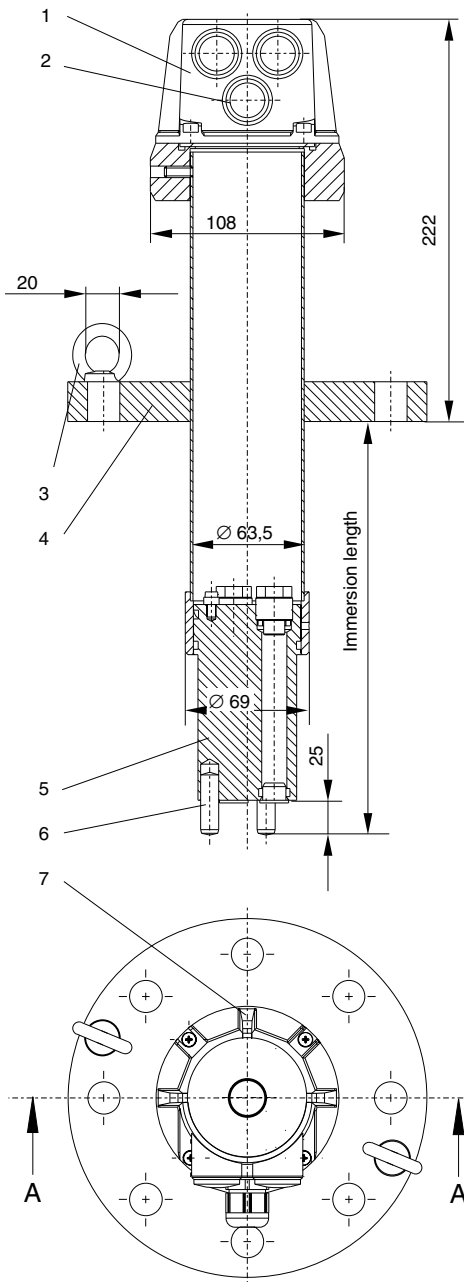
Stainless steel version

Dimensions of fixed flange

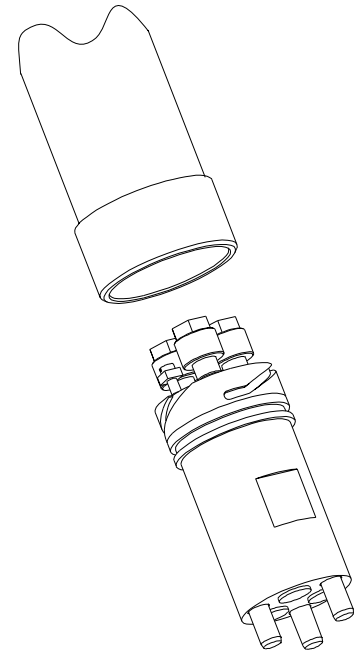


| | Flange | | |
|----------------|----------------|--------------------|----------------|
| | DN 80 PN 16 | ANSI 3" 150 lbs | JIS 10K 80A |
| D | 200 | 190,5 | 185 |
| Ø k | 160 | 152,4 | 150 |
| d ₂ | 18 | 19 | 19 |
| b | 20 | 23,8 | 18 |
| a | 63,5 | 63,5 | 63,5 |
| Screws | M 16 | M 16 | M 16 |

Section A-A



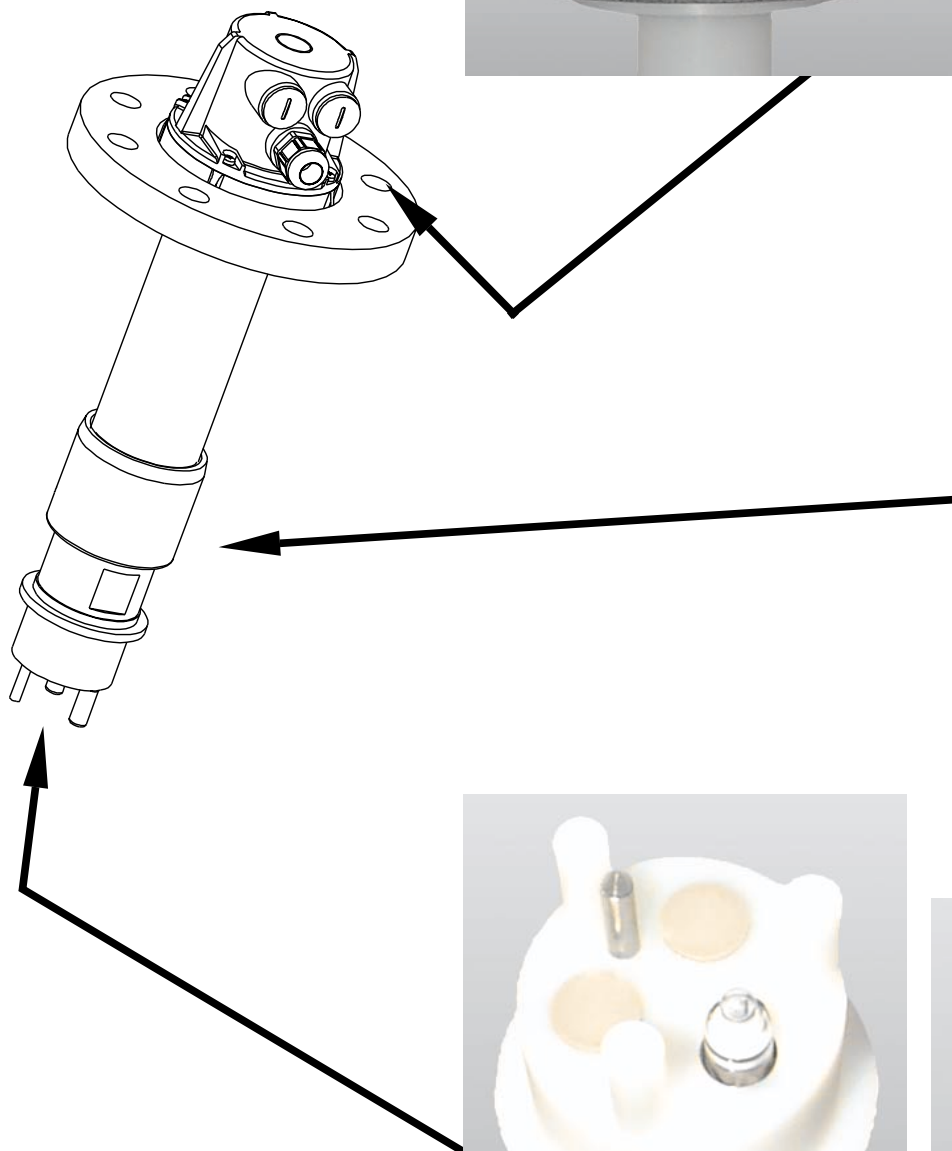
Bayonet mounting



Dimensions of the stainless steel assembly
DipFit P CPA 140

- 1 Assembly head
- 2 Cable gland Pg 13.5
- 3 Screw-in lifting eyes
- 4 Fixed flange
- 5 Electrode holder
- 6 Shock-protection studs (stainless steel 1.4401)
- 7 Goretex® filter

PVDF version



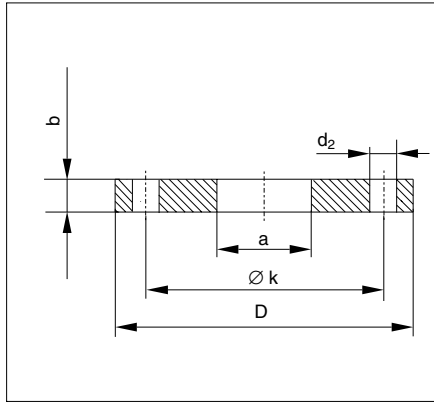
Bottom view of electrode holder with one electrode installed and potential matching pin



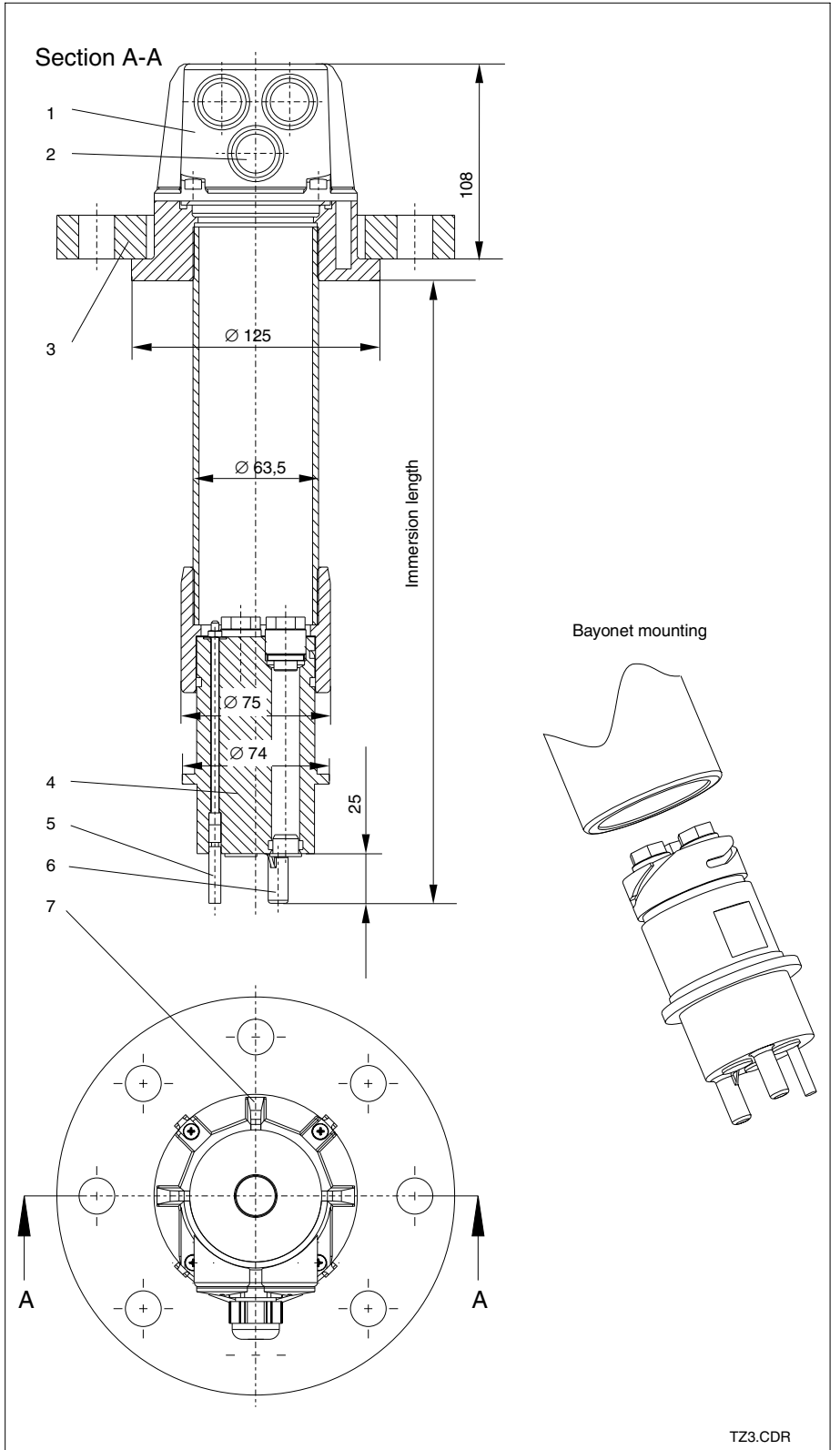
Top view of the electrode holder with one electrode installed

PVDF version

Dimensions of loose flange



| | Flange | | |
|----------------|----------------|--------------------|----------------|
| | DN 80 PN 16 | ANSI 3" 150 lbs | JIS 10K 80A |
| D | 200 | 200 | 185 |
| Ø k | 160 | 152 | 150 |
| d ₂ | 18 | 19 | 19 |
| b | 22 | 22 | 18 |
| a | 110 | 110 | 110 |
| Screws | M 16 | M 16 | M 16 |



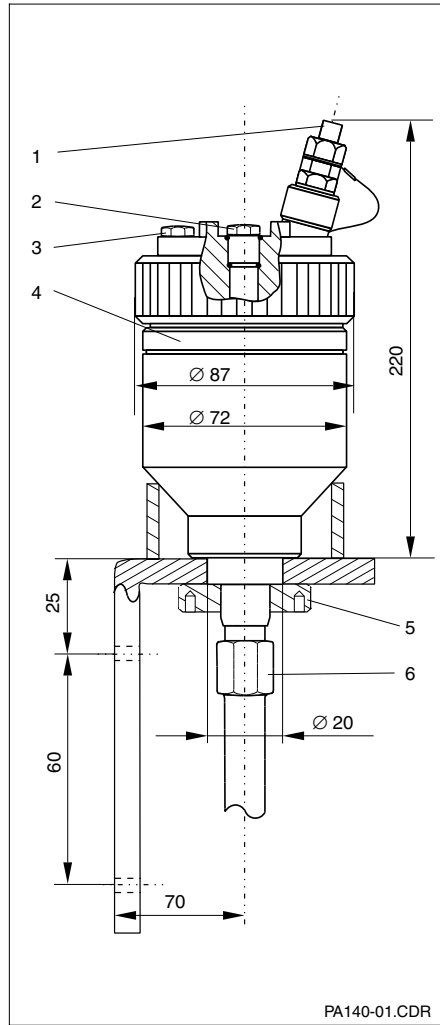
Dimensions of the PVDF assembly DipFit P CPA 140

- 1 Assembly head
- 2 Cable gland Pg 13.5
- 3 Loose flange
- 4 Electrode holder
- 6 Shock-protection studs
- 7 Goretex® filter

Accessories

KCl reservoir CPY 7:

- 1 Valve
- 2 Dummy plug; reference electrode position
- 3 Dummy plug; manometer position
- 4 Filling mark
- 5 Securing nut for electrolyte vessel
- 6 Hose coupling



KCl reservoir mounted on top of the assembly CPA 140

KCl reservoir

- for supplying liquid filled pH electrodes with KCl electrolyte
- maximum effective volume 200 ml
- available with wall-mounting bracket or
- direct mounting on assembly without further securement

Technical data

General data

| | |
|--------------|------------------|
| Manufacturer | Endress+Hauser |
| Designation | DipFit P CPA 140 |

Installation

| | |
|---|---|
| Immersion length | 500 ... 2500 mm |
| Electrode length | 120 mm |
| Number of mounting positions in sensor holder | 3 cable glands Pg 13.5 |
| Required installation cross-section | DN 80 |
| Cable gland | 2 cable gland Pg 16; 1 cable glands Pg 13.5 |

Mounting

| | |
|---|-------------------------|
| A | Without flange |
| B | Flange DN 80 PN 16 |
| D | Flange ANSI 3", 150 lbs |
| E | Flange JIS 10K 80A |

Weight

| | |
|---|----------------------------------|
| PVDF (500 mm / 2500 mm) | Approx. 2.5 kg / approx. 3.0 kg |
| Stainless steel 1.4404 (500 mm / 2500 mm) | Approx. 8.0 kg / approx. 12.0 kg |

Materials in contact with medium

| | |
|----------------|----------------------------------|
| Immersion tube | PVDF / stainless steel 1.4404 |
| O rings | EPDM / Viton / Chemraz / Fluoraz |

Sensor holder

| | |
|------------------------|-------------------------------|
| Sensor holder | PVDF / stainless steel 1.4404 |
| Potential matching pin | Hastelloy C4 / tantalum |
| Shock-protection studs | PVDF / 1.4401 |
| Dummy plugs | PEEK |

Materials not in contact with medium

| | |
|------------------------------------|------------------------|
| Protective cap | PP-GF 20 |
| Protective cover for KCl reservoir | Stainless steel 1.4571 |
| Screw-in lifting eyes | Stainless steel 1.4301 |

Operating data

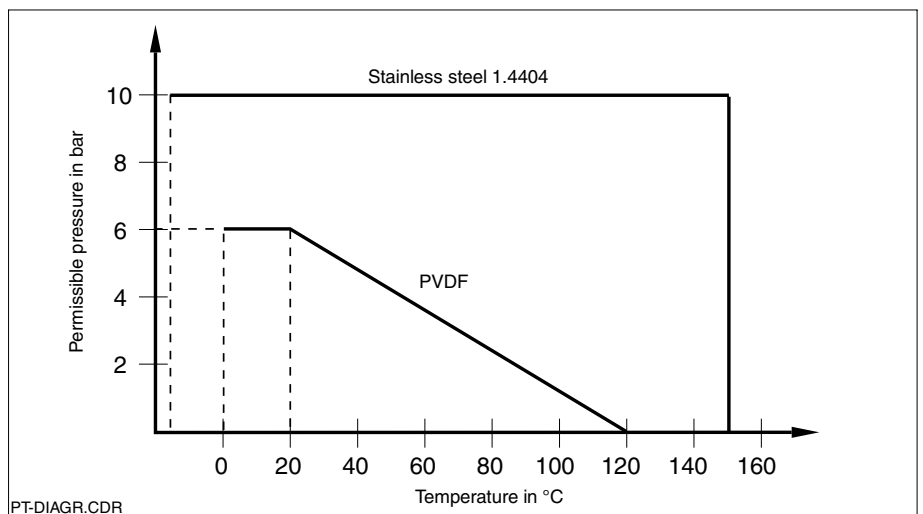
Operating pressure

| | |
|--------------------------------|-----------------------|
| PVDF version | Max. 6 bar (at 20 °C) |
| Stainless steel 1.4404 version | Max. 10 bar |

Operating temperature

| | |
|--------------------------------|-------------------------------|
| PVDF version | 0 ... +120 °C |
| Stainless steel 1.4404 version | -15 ... +150 °C (EPDM 140 °C) |

Pressure / temperature diagram



Note

The operating limits of the entire system are determined by the operating limits of the individual components

used (assembly, sensors, cables, accessories, etc.)!

Subject to modifications.

How to order

| Immersion assembly DipFit P CPA 140 | | | | | |
|---|--|--|--|--|--|
| Assembly/PAL material | | | | | |
| 21 PVDF / PAL: Hastelloy C4 | | | | | |
| 22 PVDF / PAL: tantalum | | | | | |
| 30 Stainless steel 1.4404 | | | | | |
| Immersion length | | | | | |
| 1 500 mm | | | | | |
| 2 1000 mm | | | | | |
| 3 1500 mm | | | | | |
| 4 2000 mm | | | | | |
| 5 2500 mm | | | | | |
| Process connection | | | | | |
| A Without flange | | | | | |
| B Flange DN 80 PN 16 | | | | | |
| D Flange ANSI 3" | | | | | |
| E Flange JIS 10K 80A | | | | | |
| Gasket material | | | | | |
| 1 EPDM | | | | | |
| 2 Viton | | | | | |
| 3 Chemraz | | | | | |
| 4 Fluoraz | | | | | |
| Features | | | | | |
| 10 Basic version | | | | | |
| 30 Test certificate to EN 10204-3.1B | | | | | |
| ↓ ↓ ↓ ↓ ↓ | | | | | |
| CPA 140- [] [] [] [] [] [] complete order code | | | | | |

Accessories

O-ring sets

| | |
|-----------|--------------------|
| - EPDM | Order No. 50089296 |
| - Viton | Order No. 50089297 |
| - Chemraz | Order No. 50089298 |
| - Fluoraz | Order No. 50089299 |

Endress+Hauser GmbH+Co. - Instruments International -

P.O. Box 2222
D-79574 Weil am Rhein
Tel. (07621) 975 - 02
Fax (07621) 975345

Endress + Hauser
Nothing beats know-how

