



Level



Pressure



Flow



Temperature



Liquid  
Analysis



Registration



Systems  
Components



Services

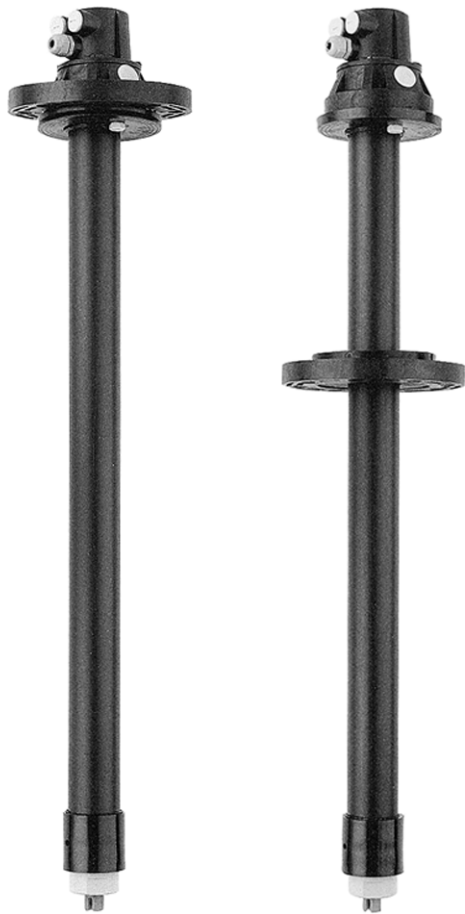


Solutions

## Technical Information

# Dipfit W CLA111

Immersion and process assembly for open and closed tanks with DN 100 flange



### Application

The immersion and process assembly Dipfit W CLA111 is intended for universal use in the following areas:

- Water treatment
- Wastewater treatment

It can be used at pressures up to 4 bar (58 psi).

### Your benefits

- Made of environmentally compatible polypropylene material
- Simple installation and removal of sensor holder thanks to bayonet lock
- Flexible immersion depth thanks to adjustable flange; additional bayonet locking mechanism assures easy installation and removal of assembly
- Suitable for sensors CLS21, CLS21D and CLS50

## Function and system design

### Function

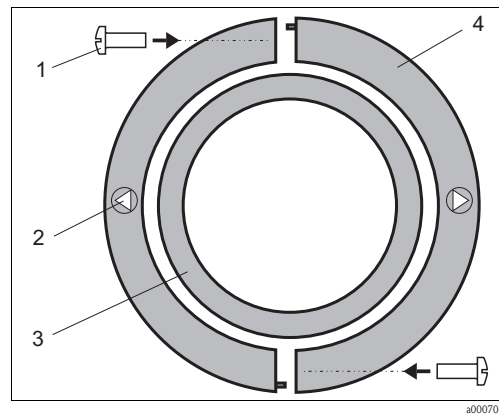
The assembly can be mounted using a standard DN 100 flange (mounting version A). Additional captive star handle screws allow to attach the assembly to a mounting frame for convenient installation on basin or channel rims.

The adjustable flange (mounting version B) can be used to adapt the immersion depth to local conditions. The adapter for the adjustable flange is firmly attached in the desired position on the immersion tube. The bayonet lock integrated in the flange allows easy installation and removal of the assembly without the need to dismantle the flange.

A special DN 100 pressurized flange (mounting version C) is used to install the assembly in closed tanks with pressures of up to 4 bar (58 psi).

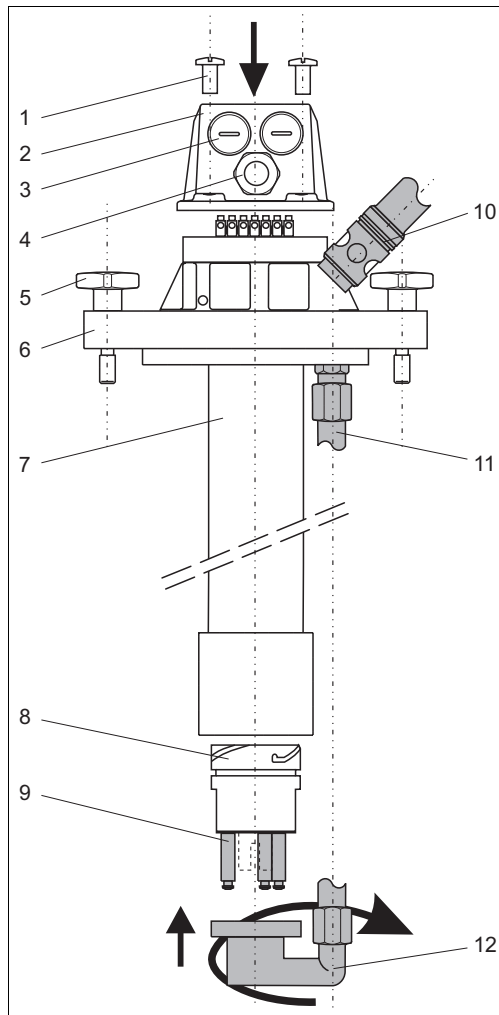
The suspended version of the assembly (mounting version D) can be installed in immersion tanks using the assembly holder CYH101. The assembly length is fixed to 1 m. The suspension bracket is made of stainless steel 1.4571 (AISI 316 Ti). Various immersion depths are possible when used in conjunction with a suspension chain.

The assembly for pendulum frame mounting (mounting version F) is designed for pendulous suspension from the pendulum frame by the retaining ring.



- 1 Phillips screws
- 2 Marker "final position"
- 3 Assembly pipe
- 4 Half-shells

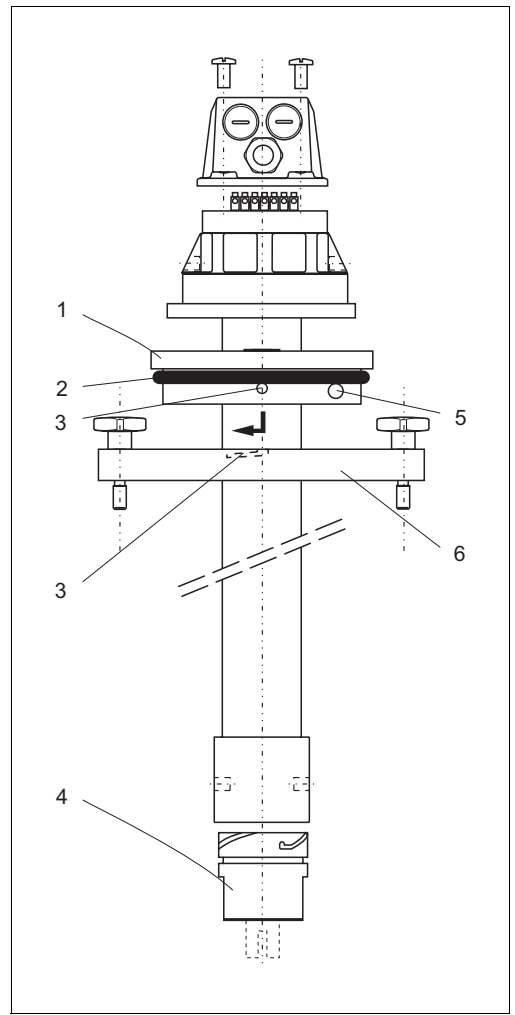
Adjustable flange adapter



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Version A and C with flange DN 100

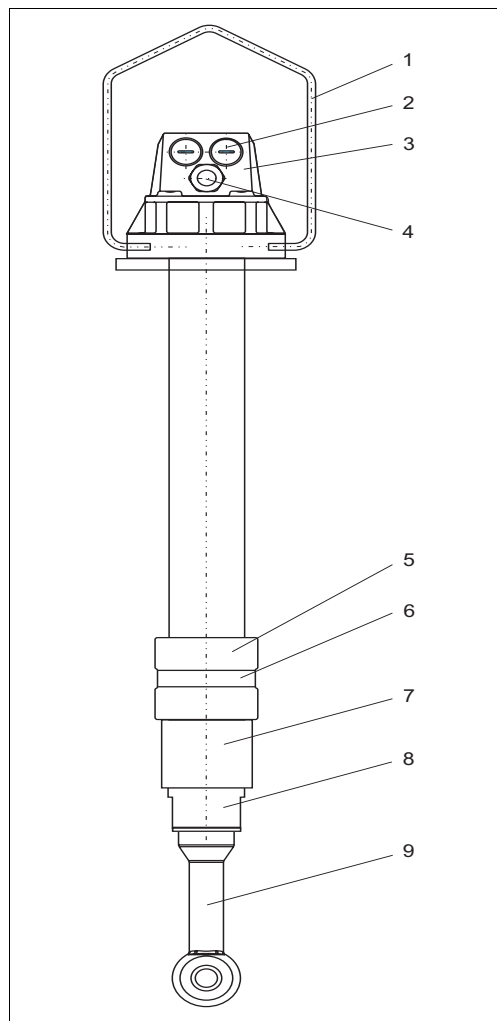
- 1 Phillips screw (4 pieces)
- 2 Assembly head
- 3 Dummy plug
- 4 Cable gland Pg 13.5
- 5 Star handle screws (not for pressurized version)
- 6 Flange DN 100, A: standard, C: pressurized flange
- 7 Assembly pipe
- 8 Sensor holder
- 9 Sensor holder with fixing bolts for Chemoclean spray head CLR30
- 10 Quick fitting coupling for Chemoclean
- 11 Connecting pipe with pipe couplings for Chemoclean
- 12 Spray head for Chemoclean



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Version B with adjustable flange DN 100

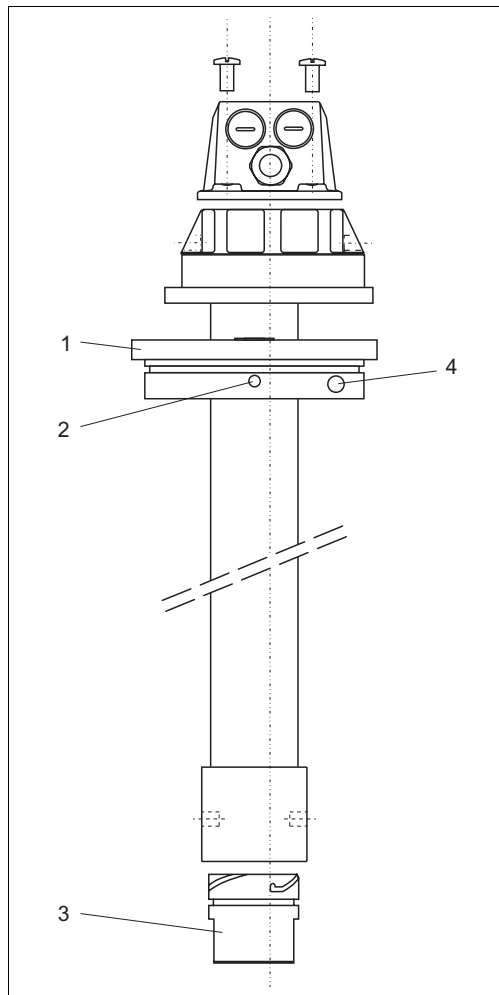
- 1 Adjustable flange adapter (2 half shells)
- 2 O-ring for tolerance compensation
- 3 Bayonet lock
- 4 Sensor holder
- 5 Tensioning screws (2 pieces)
- 6 Flange DN 100



- 1 Suspension bracket (AISI 316 Ti)
- 2 Dummy plug Pg 16
- 3 Assembly head
- 4 Cable gland Pg 13.5
- 5 Weight (half-shells)
- 6 Cable clamp to fix the half-shells
- 7 Sleeve
- 8 Sensor holder
- 9 Sensor

Version D with suspension bracket

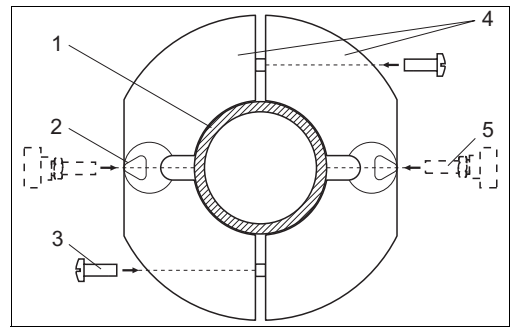
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Version F for pendulum frame mounting

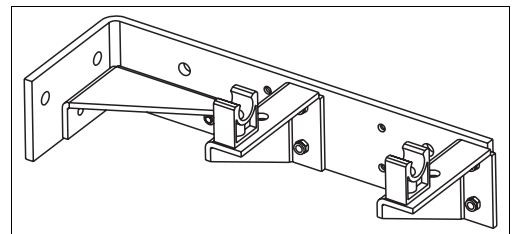
- 1 Retaining ring (half-shells)
- 2 Threaded hole M8 for knurled thumb screw
- 3 Sensor holder
- 4 Tensioning screws (2 pieces) to fix the half-shells



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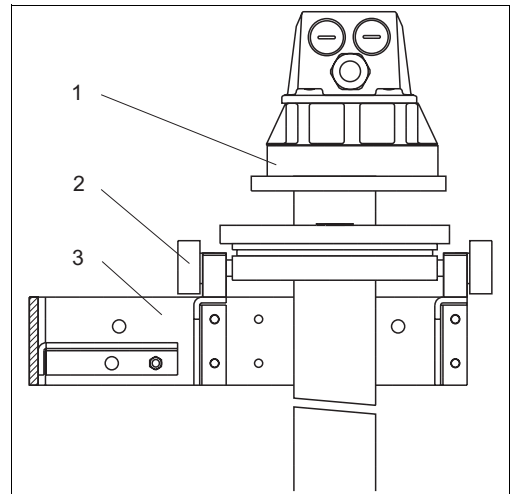
Retaining ring

- 1 Assembly pipe
- 2 Marker "final position"
- 3 Phillips screws
- 4 Half-shells
- 5 Knurled thumb screws



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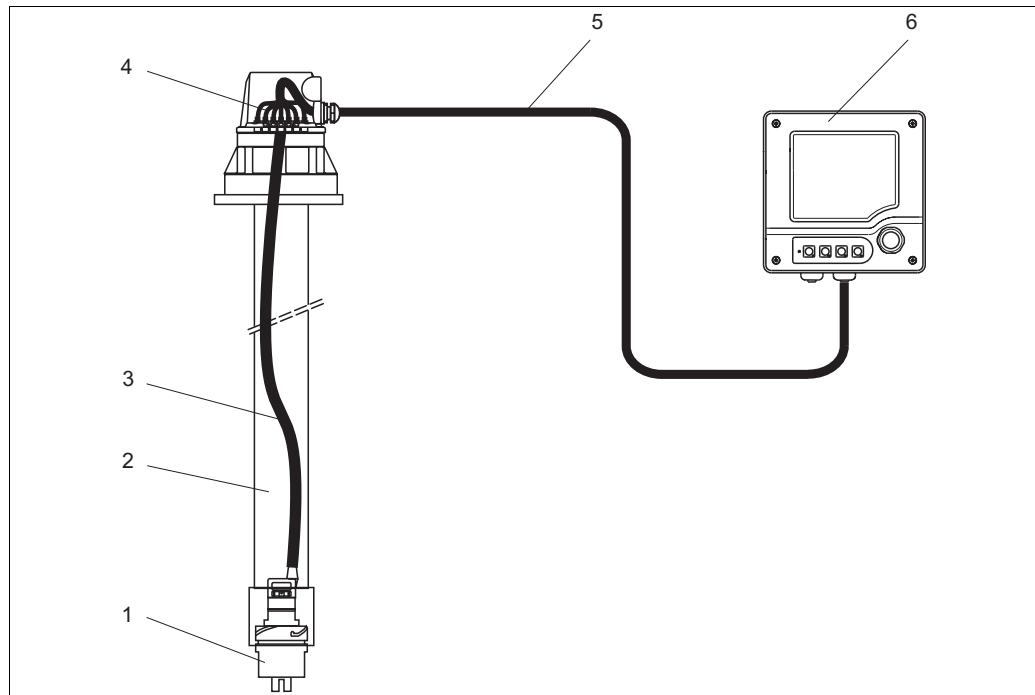
Pendulum frame



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CLA111 mounted with pendulum frame

- 1 Assembly
- 2 Knurled thumb screws
- 3 Pendulum frame

**Measuring system**

Example of a complete measuring system

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- |   |                                    |   |                              |
|---|------------------------------------|---|------------------------------|
| 1 | Sensor holder                      | 4 | Cable gland Pg 13.5          |
| 2 | Immersion assembly Dipfit W CLA111 | 5 | Extension cable              |
| 3 | Measuring cable                    | 6 | Transmitter Liquiline M CM42 |

## Installation conditions

**Mounting****Mounting:**

Version A	Flange DN 100, with additional captive star handle screws
Version B	Adjustable flange DN 100
Version C	Pressurized flange DN 100
Version D	Suspension bracket; material: stainless steel 1.4571 (AISI 316 Ti)
Version F	for pendulum frame

## Environment

**Ambient temperature**

-10 to 80 °C (14 to 176 °F)

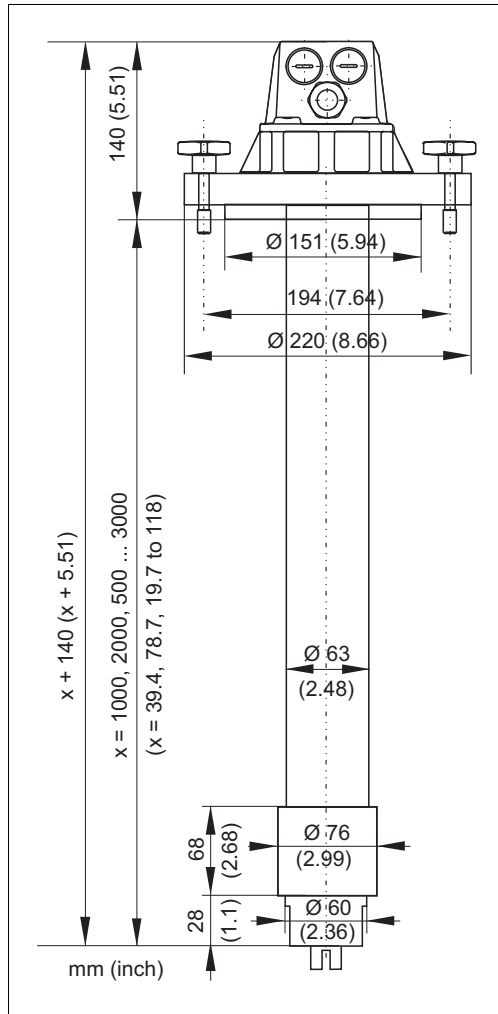
## Process

**Process temperature and pressure**

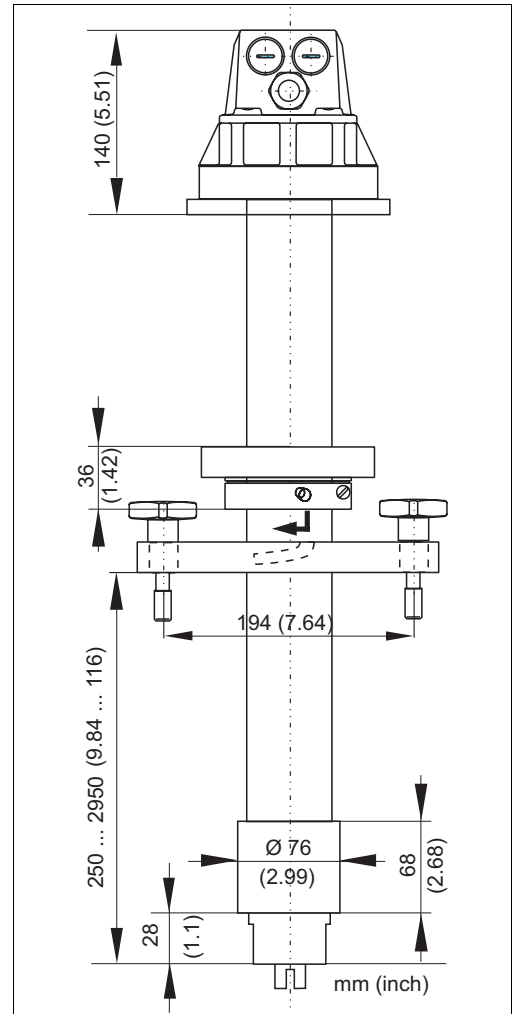
Versions A, B, D, F	unpressurized, 80 °C (176 °F)
Version C	4 bar at 20 °C (58 psi at 68 °F), unpressurized at 80 °C (176 °F)

## Mechanical construction

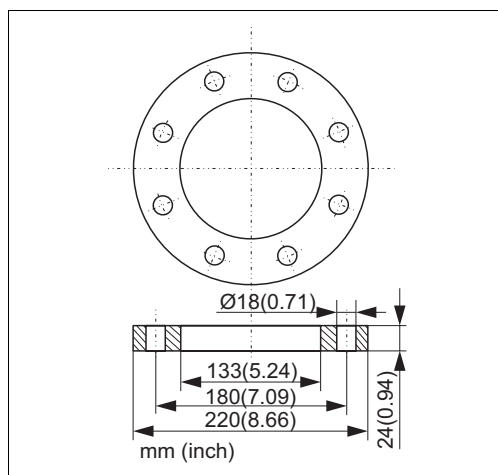
### Dimensions



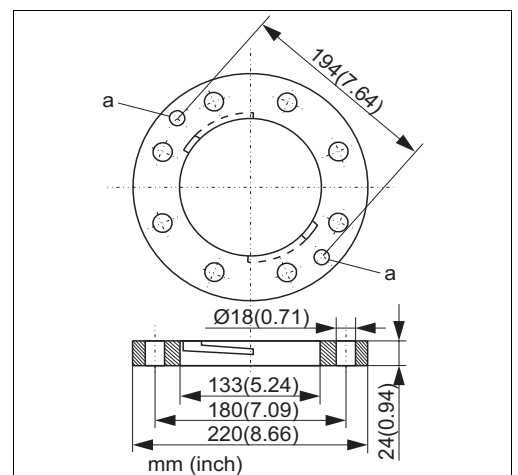
Version A and C with flange DN 100



Version B with adjustable flange DN 100

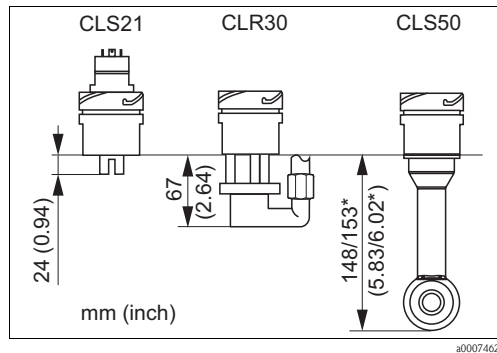


Pressurized flange DN 100 for CLA111-C



Flange DN 100 for CLA111-A/B

a Through hole for star handle screws



\*Length below the sensor holder

<b>Weight</b>	approx. 4 kg (8.82 lbs)
<b>Materials</b>	<p>in contact with medium:</p> <p>sensor holder PP-GF 20</p> <p>immersion pipe PP</p> <p>O-ring EPDM</p> <p>additionally with versions D and F:</p> <p>half shells grey cast iron, PVC coated</p> <p>cable clips stainless steel 1.4401 (AISI 316)</p>
<b>Cable glands</b>	1 x Pg 13.5; 2 x Pg 16
<b>Suitable sensors</b>	CLS21, CLS21D and CLS50
<b>Immersion depth</b>	<p>standard: 1000 mm (39.4 "), 2000 mm (78.8 ")</p> <p>special length: 500 to 3000 mm (19.7 to 118 ")</p>
<b>Required cross section</b>	DN 100



## Ordering information

### Scope of delivery

The scope of delivery comprises:

- Dipfit W CLA111 assembly (ordered version)
- Measuring cable with plug for two-electrode sensor CLS21
- O-ring for sensors CLS21 and CLS21D
- Operating Instructions (English)

### Product structure

Immersion depth	
0	Immersion depth: 1000 mm
1	Immersion depth: 2000 mm
2	Immersion depth: as specified: 500 - 3000 mm
3	Immersion depth: 500 mm
4	Immersion depth: 1500 mm
5	Immersion depth: 2500 mm
6	Immersion depth: 3000 mm
Assembly material	
0	Thread G 1, O-rings: EPDM for CLS21 and CLS21D
1	Thread G ¾, O-rings: EPDM for CLS50
Process connection	
A	Flange DN 100, PP / pressureless
B	Flange DN 100, PP / adjustable flange
C	Flange DN 100; max. 4 bar
D	Suspension bracket; 316Ti, immersion depth 1000 mm only
F	For pendulum frame mounting

CLA111-				complete order code
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## Accessories

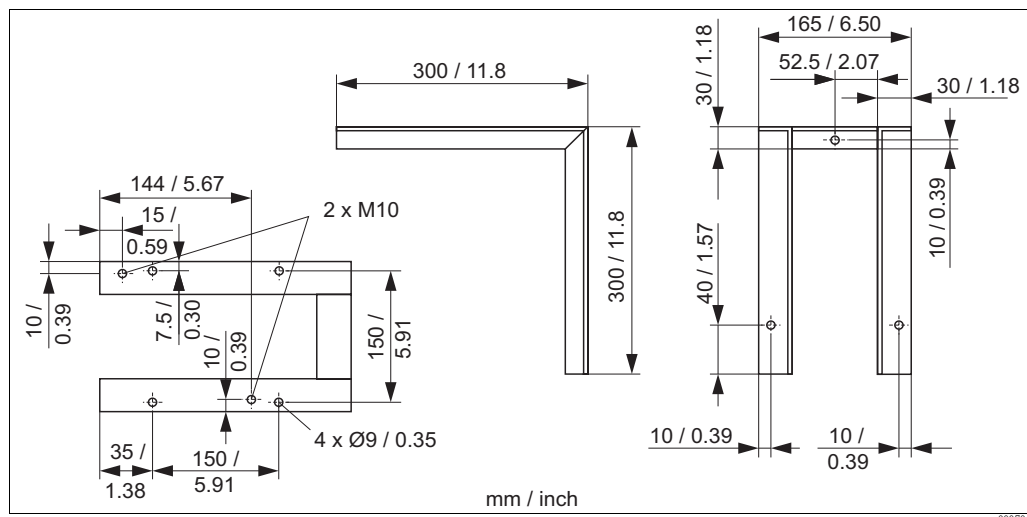
### Installation material

Immersion assembly holder CYH101

- For pH, ORP, oxygen, conductivity assemblies and for oxygen and turbidity sensors;
- Ordering acc. to product structure (Technical Information TI092C/07/en)

Mounting frame for CPA111, CPA510, CPA530 und CLA111

- Material: stainless steel 1.4301 (AISI 304)
- Order number: 50066561



Dimensions of mounting frame

Pendulum frame

- For pendulous suspension of CPA111, CLA111, CPA510 and CYA611 assemblies
- Order no. 50080196

Add-on kit pendulum frame

- To mount CPA111 and CLA111 at pendulum frame
- Order number: 50087873

Adjustable flange adapter DN 100

- For CPA111 and CLA111 variable immersion depth
- Order number: 50070514

Flange DN 100 unpressurized

- For CPA111 and CLA111 suitable to the adjustable flange adapter
- Order number: 50066632

### Sensors

Conductive conductivity sensor Condumax W CLS21/CLS21D

- Two-electrode sensor in fixed cable and plug-in head version
- Optionally with Memosens technology (CLS21D)
- With temperature sensor Pt 100 (CLS21) or NTC (CLS21D)
- Cell constant  $k = 1 \text{ cm}^{-1}$
- Order according to product structure, see Technical Information TI085C/07/en

Inductive conductivity sensor Indumax P CLS50

- Highly resistant conductivity sensor for standard, Ex and high-temperature applications,
- Order according to product structure, see Technical Information TI182C/07/en

**Extension cables**

Special measuring cable / extension cable CYK71

- For two-electrode conductivity sensors with integrated temperature sensor,
- One low-noise coaxial line, four auxiliary cores at 0.75 mm<sup>2</sup> (≅ 18 AWG) each with a common screen, outer diameter 7 mm (0.25")
- Sold by the meter:  
 (minimum) length 5 m (15 ft); order no. 50085333  
 length 5 m (15 ft); order no. 50088280  
 length 10 m (30 ft); order no. 50088281  
 length 50 m (150 ft); order no. 50088284  
 length 100 m (300 ft); order no. 50088285

Special measuring cable / extension cable CYK71-Ex

- For Ex applications,
- See CYK71, but with a blue sheath
- Sold by the meter, minimum length 5 m (15 ft); order no. 50085673

CYK10 Memosens data cable

- For digital sensors with Memosens technology
- Ordering according to product structure, see below

Certificates	
A	Standard, non Ex
G	ATEX II 1G EEx ia IIC T6/T4
Cable length	
03	Cable length: 3 m (9.8 ft)
05	Cable length: 5 m (16 ft)
10	Cable length: 10 m (33 ft)
15	Cable length: 15 m (49 ft)
20	Cable length: 20 m (66 ft)
25	Cable length: 25 m (82 ft)
88	... m length
89	... ft length
Ready-made	
1	Wire terminals
<b>CYK10-</b>	complete order code

**Transmitter**

Liquiline M CM42 (for analog conductivity sensors and digital conductivity sensors with Memosens technology)

- Modular two-wire transmitter for Ex and non-Ex areas
- Hart®, PROFIBUS or FOUNDATION Fieldbus available
- Ordering acc. to product structure, see Technical Information (TI381C/07/en)

Liquisys M CLM223/253 (for analog conductivity sensors)

- Transmitter for conductivity, field or panel-mounted housing,
- Hart® or PROFIBUS available
- Ordering acc. to product structure, see Technical Information (TI193C/07/en)

Mycom S CLM153 (for analog conductivity sensors)

- Transmitter for conductivity, one or two channel version, Ex or Non-Ex,
- Hart® or PROFIBUS available
- Ordering acc. to product structure, see Technical Information (TI234C/07/en)

**Cleaning system**

Chemoclean CLR30

- Automatic cleaning system for the sensors CLS21/CLS21D
- Ordering according to product structure

Design, material	
0	CLA111, PP
Immersion depth	
0	1000 mm
1	2000 mm
2	special length 500 ... 3000 mm
<b>CLR30-</b>	complete order code

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