Technical Information
Flowfit CYA21

Universal assembly for analysis systems in industrial utilities

Implementation of measuring points to accommodate sensors with Pg 13.5 or NPT ½" thread for applications in power stations, the chemical industry and water treatment systems.

Application

Flowfit CYA21 is designed for integration on analytical panels and analysis systems, or to implement bypasses in the following industries:
- Power stations
- Utilities in the (petro-)chemical and pharmaceutical industry
- Water treatment

Your benefits

- Implementation of analytical measuring points for quality monitoring and control of process media such as boiler feedwater or condensate
- Stainless steel assembly for use in demanding process conditions (maximum 16 bar at 100°C)
- Open pipe outlets for integration into common gaugeable tube fittings systems
- Universal assembly for sensors with Pg 13.5 or NPT 1/2" process connection
- Easy installation with the mounting kit supplied

Endress+Hauser
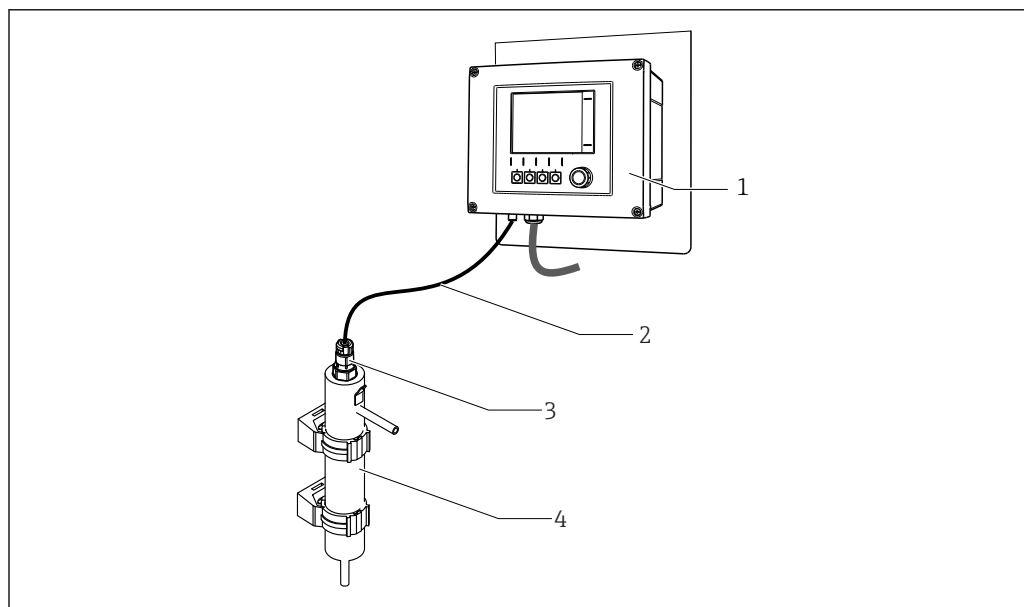
People for Process Automation

Function and system design

Measuring system

A complete measuring system comprises:
• Flowfit CYA21
• Oxygen/pH/ORP electrode, length 120 mm (4.72"), e.g. Orbisint CPS11D
• Transmitter, e.g. Liquiline CM44x or Liquiline CM42
• Measuring cable, e.g. CYK10

Optional:
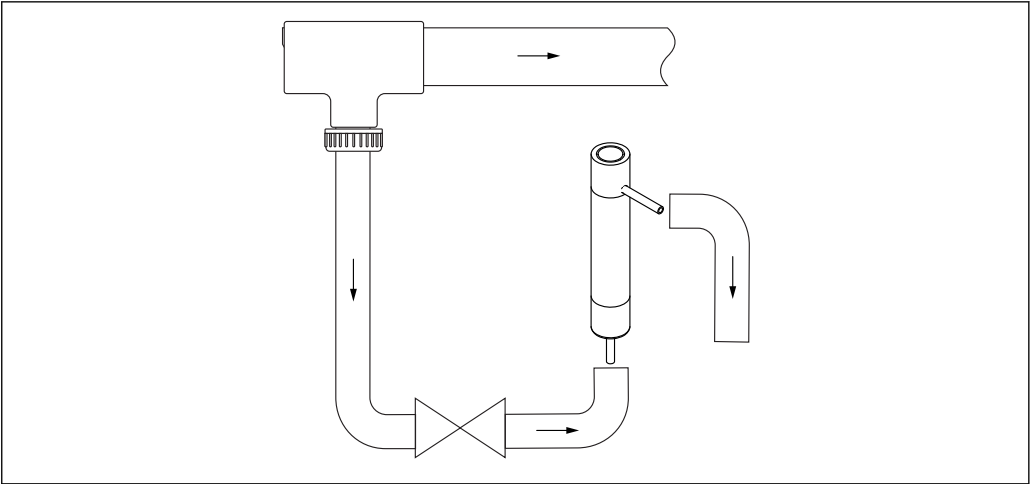• Junction box M12 socket/cable or cable/cable
• Extension cable CYK11

⊠ 1   Measuring system with CYA21

1   Transmitter Liquiline CM44x
2   Measuring cable CYK10
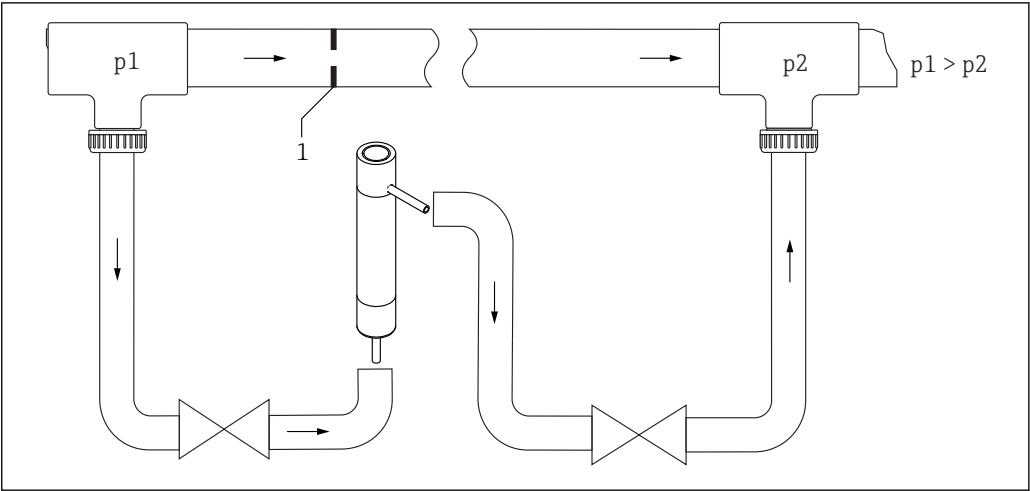*3   pH sensor CPS11D*
4   Flowfit CYA21 assembly

Installation

Installation instructions

No measures are required for branch pipes that branch off from the main pipe (no return medium).

2   Connection example

3   Connection example with bypass and orifice plate in the main pipe

1   Orifice plate

To achieve flow through the assembly with a bypass, pressure p1 must be higher than pressure p2. This can be achieved by installing an orifice plate in the main pipe.

The inlet and outlet connection of the flow assembly are always identical (Ø 6 x 1 mm).

The flow assembly is designed for gaugeable tube fittings systems.

Required at point of installation:

Required components	Application
2 shut-off valves	Bypass solution
1 shut-off valve	Solution with open outlet
Orifice plate in the main pipe	Bypass solution
Dirt filter (500 μm or finer)	If the medium contains coarse particles of dirt
Pressure-reducing valve	If the medium pressure exceeds the permitted value
Wall holder unit to secure the assembly	All versions
Pipe connections to assembly	All versions

Environment

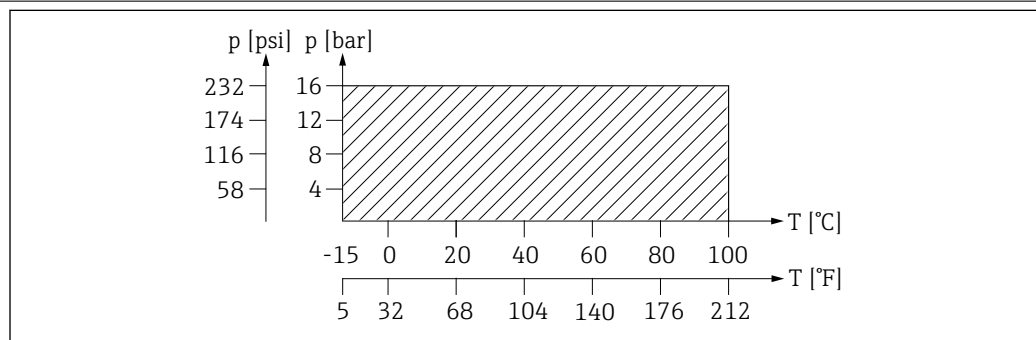|	
Ambient temperature	–15 to 70 °C (5 to 158 ℉)

Process

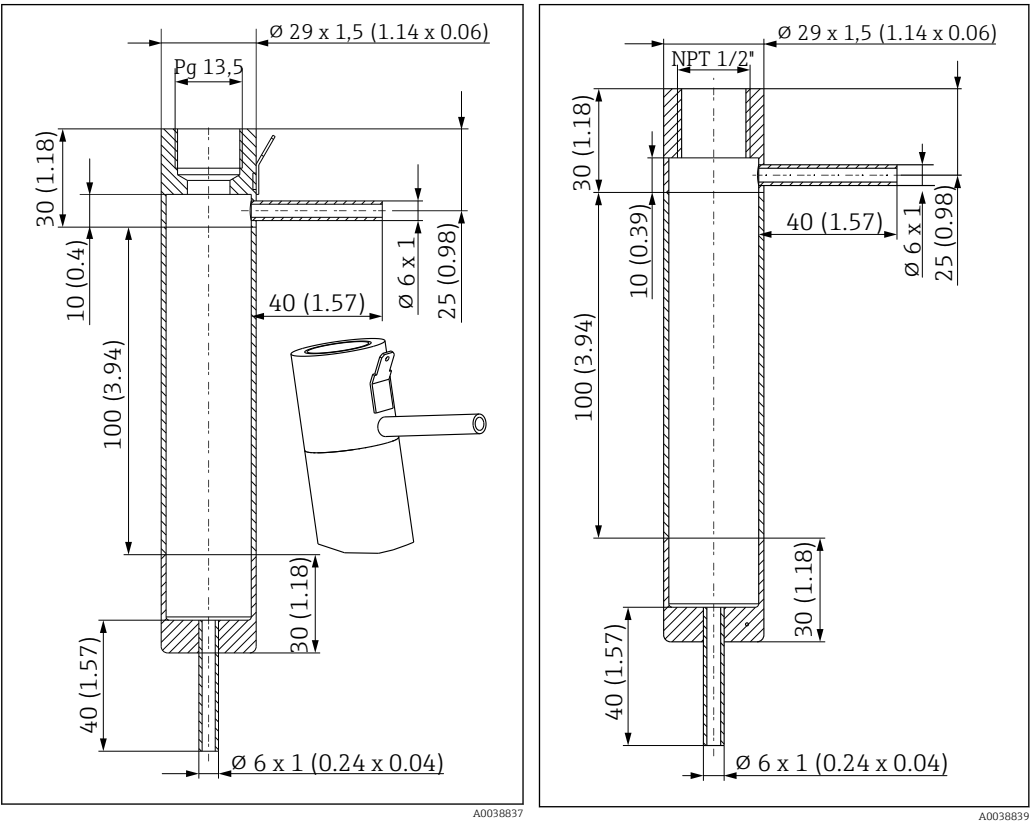|	
Process temperature	-15 to 100 °C (5 to 212 ℉), non-freezing
Maximum process pressure	PN 16 232 psi
Flow conditions	Pay attention to the specifications of the electrode.
Pressure-temperature ratings	

🖼 4   Pressure-temperature ratings

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Mechanical construction

Dimensions

⊞ *5   Dimensions of CYA21 Pg 13.5. engineering unit in mm (inch)*

⊞ *6   Dimensions of CYA21 NPT 1/2". Engineering unit in mm (inch)*

Weight	255 g (8.99 oz)
Materials	Stainless steel 1.4404 (AISI 316 L)
Sensor connection	• NPT 1/2" • Pg 13.5
Pipe connection	6 x 1 mm (open pipe outlet)

Ordering information

Product page	www.endress.com/cya21

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 delivery comprises:
- Assembly in the version ordered
- Mounting kit
- 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	**Glass electrode, analog and digital with Memosens technology**

Orbisint CPS11D / CPS11
- pH sensor for process technology
- Optional SIL version for connecting to SIL transmitter
- With dirt-repellent PTFE diaphragm
- Product Configurator on the product page: www.endress.com/cps11d

📖 Technical Information TI00028C

Memosens CPS31D
- pH electrode with gel-filled reference system with ceramic diaphragm
- Product Configurator on the product page: www.endress.com/cps31d

📖 Technical Information TI00030C

Ceraliquid CPS41D / CPS41
- pH electrode with ceramic junction and KCl liquid electrolyte
- Product Configurator on the product page: www.endress.com/cps41d or www.endress.com/cps41

📖 Technical Information TI00079C

Oxygen sensors

Oxymax COS22D
- Sterilizable sensor for dissolved oxygen
- With Memosens technology or as an analog sensor
- Product Configurator on the product page: www.endress.com/cos22d

📖 Technical Information TI00446C

Memosens COS81D
- Sterilizable, optical sensor for dissolved oxygen
- With Memosens technology
- Product Configurator on the product page: www.endress.com/cos81d

📖 Technical Information TI01201C

Conductivity sensors

Condumax CLS15D
- Conductive conductivity sensor
- For pure water, ultrapure water and hazardous area applications
- Product Configurator on the product page: www.endress.com/CLS15d

📖 Technical Information TI00109C

Condumax CLS19
- Cost-effective, conductive conductivity sensor
- For applications with pure and ultrapure water
- Product Configurator on the product page: www.endress.com/CLS19

📖 Technical Information TI00110C

Connection accessories	**Memosens data cable CYK10**

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

📖 Technical Information TI00118C

Measuring cable CYK71
- Unterminated cable for connecting analog sensors and for extending sensor cables
- Sold by the meter, order numbers:
  - Non-Ex version, black: 50085333
  - Ex-version, blue: 50085673

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