



Level



Pressure



Flow



Temperature



Liquid
Analysis



Registration



Systems
Components



Services



Solutions

Technical Information

Ecofit CPA640

Universal compact assembly

Installation of 120 mm pH, ORP and DO sensors in submersible and in-line water and process applications



Application

Ecofit is an adapter for the installation of sensors with a diameter of 12 mm (0.47") into NPT process connections in:

- wastewater treatment
- water treatment
- condensate treatment and
- cooling water circuits.

Your benefits

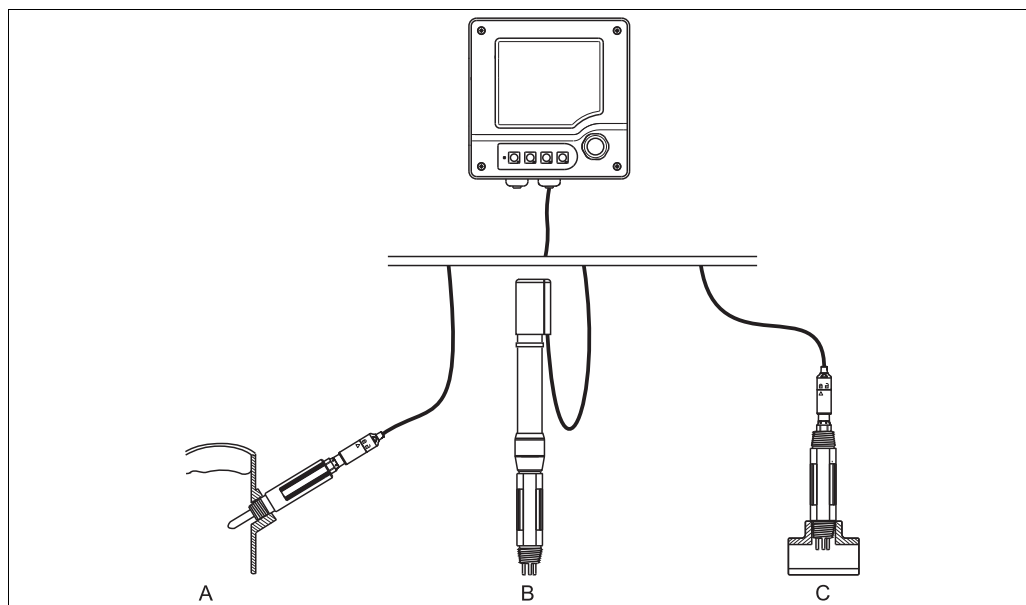
- Simple and flexible
 - Installation of standard sensors with Pg 13.5 and 120 mm (4.72") length in existing adapters or assemblies with NPT connections
 - Threaded connection for quick installation/removal
- Robust and safe
 - PVDF or stainless steel 316 L (1.4404/1.4435)
 - Optional with protective basket against glass electrode damages
 - For process seals are several materials available:
 - Viton®
 - EPDM
 - Kalrez®
 - Chemraz®
- Cost reducing
 - Economic use of gel or KCl sensors with Memosens technology possible
 - For commonly used connections such as NPT 1/2" and NPT 3/4"

Function and system design

Measuring system

A complete measuring system comprises:

- Installation adapter Ecofit CPA640
- Sensor with Pg 13.5, length 120 mm, e.g. Orbisint CPS11D
- Transmitter, e.g. Liquiline CM42
- Measuring cable, e.g. CYK10



Measuring system with CPA640, transmitter (CM42), sensor and cable

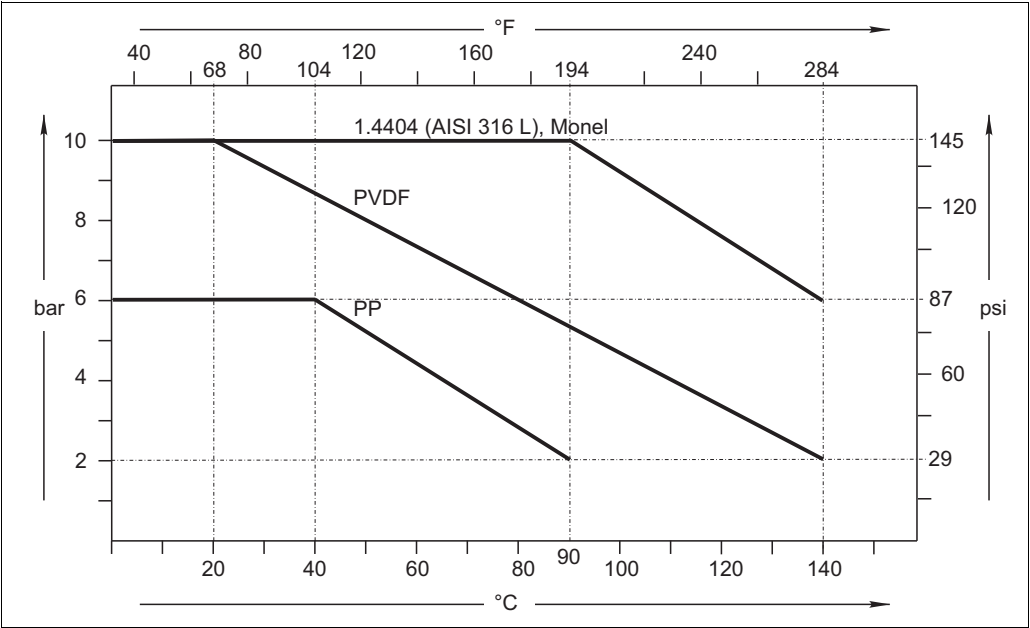
A Direct installation at the NPT process connection

B Installation in an immersion assembly (CYA611)

C Installation in a flow assembly (→ Accessories)

Process

Temperature-Pressure
diagram

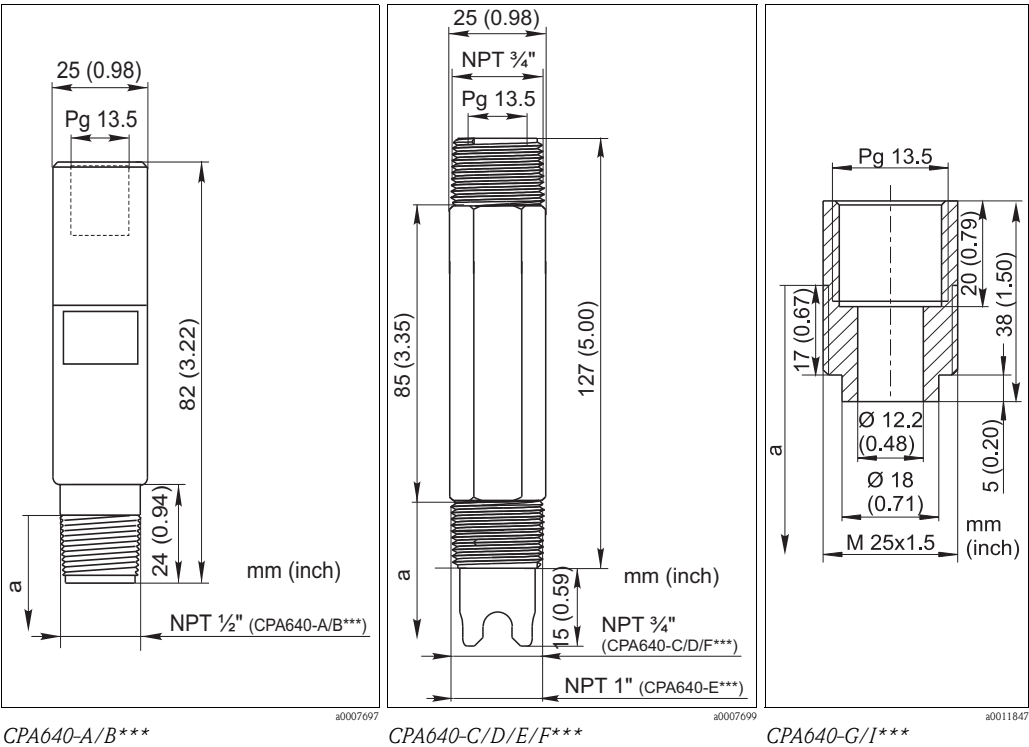


Temperature-pressure diagram

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Mechanical construction

Design, dimensions



a = immersion depth, depending on assembly version:
CPA640-A/B/E = 58 mm (2.28")
CPA640-C/D/F = 25 mm (0.98")
CPA640-G/I = 85 mm (3.35")

Weight 0.1 to 0.3 kg (0.22 to 0.66 lbs), depending on the version

Materials

Adapter body:	
CPA640-A/C/E/G***	PVDF (Polyvinylidene fluoride)
CPA640-B/D***	Stainless steel 316 L (1.4404/1.4435)
CPA640-F***	PP (Polypropylene)
CPA640-I***	Monel®
Sealing ring:	FDM (Viton®), EPDM, Chemraz®, Kalrez®

Endress+Hauser supplies DIN/EN threaded process connections made of stainless steel according to AISI 316L (DIN/EN material number 1.4404 or 1.4435). With regard to their temperature stability properties, the materials 1.4404 and 1.4435 are grouped under 13E0 in EN 1092-1 Tab. 18. The chemical composition of the two materials can be identical.

Process connection

CPA640-A/B***	NPT 1/2"
CPA640-C/D/F***	NPT 3/4"
CPA640-E***	NPT 1"
CPA640-G/I***	M25x1.5

Ordering information

Product structure

Process connection, material				
	A			NPT ½" thread, PVDF (with immersion depth 2 only)
	B			NPT ½" thread, stainless steel 316L (1.4404/1.4435) (with immersion depth 2 only)
	C			NPT ¾" thread, PVDF (with immersion depth 1 only)
	D			NPT ¾" thread, stainless steel 316L (1.4404/1.4435) (with immersion depth 1 only)
	E			NPT 1" thread, PVDF (with immersion depth 2 only)
	F			NPT ¾" thread, PP (with immersion depth 1 only)
	G			M25x1.5 thread, PVDF (with immersion depth 3 only)
	I			M25x1.5 thread, Monel® (with immersion depth 3 only)
Immersion depth, sensor protective basket				
		1		25 mm (0.98"), with protective basket
		2		58 mm (2.28"), with protective basket
		3		85 mm (3.35"), adapter, without protective basket
Sealing				
			1	Viton®
			2	EPDM
			3	Kalrez®
			4	Chemraz®
Additional options				
			1	without
			2	with cable 5 m (15 ft)
			3	with cable 10 m (30 ft)
CPA640-				complete order code

Accessories

 In the following sections, you find the accessories available at the time of issue of this documentation. For information on accessories that are not listed here, please contact your local service or sales representation.

Sensors (selection)

pH value

Ceragel CPS71/CPS71D

- pH electrode with double junction reference system and integrated bridge electrolyte
- Optional with Memosens technology (CPS71D)
- Ordering acc. to product structure, see Technical Information (TI245C/07/en)

Tophit CPS471/CPS471D

- Sterilizable and autoclavable ISFET sensor
- Optional with Memosens technology
- For food and pharma, process, water treatment and biotechnology
- Ordering acc. to product structure, s. Technical Information (TI283C/07/en)

Ceraliquid CPS41/CPS41D

- pH electrode with ceramic diaphragm and liquid KCl electrolyte
- Optional Memosens technology (CPS41D)
- Ordering acc. to product structure, s. Technical Information (TI079C/07/en)

ORP

Ceragel CPS72/CPS72D

- Redox sensor with double junction reference system and integrated bridge electrolyte
- Optional with Memosens technology (CPS72D)
- Ordering acc. to product structure, see Technical Information (TI374C/07/de)

Oxygen

Oxymax H COS21D

- Sterilizable sensor for dissolved oxygen, with Memosens technology
- Ordering acc. to product structure, see Technical Information (TI402C/07/en)

Transmitter

Liquiline M CM42

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

Liquiline CM44x

- Multiple-channel transmitter for the connection of digital sensors with Memosens technology
- Power supply: 85 to 265 V AC, 18 to 36 V DC or 20 to 28 V AC (not CM448)
- Universally upgradeable
- SD card slot
- Alarm relay
- IP 66
- Ordering acc. to product structure (Technical Information TI444C/07/en)

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

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