Technische Information

Ecofit CPA640

Universal compact assembly

For the installation of 120 mm sensors for all areas of water management and industry

Application

Ecofit is an adapter designed for the installation of sensors with Ø 12 mm (0.47”) in NPT process connections in:
- wastewater treatment
- water treatment
- condensate treatment
- water cooling

Your benefits

- Simple and flexible
  - Installation of standard sensors with Pg 13.5 and 120 mm (4.72”) in length into existing adapters or assemblies with NPT connections
  - Threaded connection for fast installation/removal
- Robust and reliable
  - PVDF or stainless steel 316L (1.4404/1.4435)
  - Version with basket protector available to protect glass electrodes
  - Process seal available in a variety of materials: VITON, EPDM, KALREZ, CHEMRAZ
- Cost-reducing
  - Enables the economical use of gel or KCl sensors with Memosens technology
  - For common connections such as NPT ½” and NPT ¾”
Function and system design

Measuring system
A complete measuring system comprises:
- Ecofit CPA640 installation adapter
- Sensor with Pg 13.5, length 120 mm, e.g. Orbisint CPS11D
- Transmitter, e.g. Liquiline CM42
- Measuring cable, e.g. CYK10

![Diagram of measuring system with CPA640, transmitter (CM42), sensor and cable]

A: Direct installation at NPT process connection
B: Installation in immersion assembly (CYA611)
C: Installation in flow assembly

Pressure-temperature ratings

![Pressure-temperature ratings graph]

1 Stainless steel 1.4404 / 1.4435 (AISI 316L), MONEL
2 PVDF
Mechanical construction

Design, dimensions

A0024792

3 CPA640-A/B***

Ø 25.4 (1.0)
Pg 13.5
NPT ½"
82 (3.23)
24 (0.95)
25.4 (1.0) 10 (0.40)
~ 57 (2.24)
120 (4.72)

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4 CPA640-C/D***

Ø 25.4 (1.0)
NPT ¾"
25.4 (1.0)
76 (3.0)
NPT ¾"
17 (0.69)
18 (0.7)
120 (4.72)
19 (0.76)
~ 22 (0.87)

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5 CPA640-E***

Ø 12.3 (0.48)
M 25x1.5
17 (0.67)
Ø 18 (0.71)
120 (4.72)
~ 115 (4.53)

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6 CPA640-G/I***

Measures in mm (inch)
Weight
 Approx. 0.1 to 0.3 kg (0.22 to 0.66 lbs) depending on the version

Materials
<table>
<thead>
<tr>
<th>Adapter body</th>
<th>Process connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPA640-A/C/E/G***</td>
<td>PVDF (polyvinylidene fluoride)</td>
</tr>
<tr>
<td>CPA640-B/D***</td>
<td>Stainless steel 316L (1.4404/14435))</td>
</tr>
<tr>
<td>CPA640-I***</td>
<td>MONEL</td>
</tr>
<tr>
<td>Sealing ring</td>
<td>FDM (VITON), EPDM, CHEMRAZ, KALREZ</td>
</tr>
</tbody>
</table>

Endress+Hauser supplies DIN/EN process connections with stainless steel threaded connection in accordance with AISI 316L (DIN/EN material number 1.4404 or 14435). With regard to their stability-temperature property, the materials 1.4404 and 1.4435 are grouped together under 13E0 in EN 1092-1, Tab. 18. The chemical composition of the two materials can be identical.

Process connections
- The assembly can only be installed if the process is unpressurized and the container is empty.
- The assembly is designed for installation on containers, pipes or in flow assemblies.
- Appropriate process connections must be provided for the installation.
- Make sure the orientation is correct. Information can be found in the manual of the sensor used.

Process connections depend on the assembly version:

<table>
<thead>
<tr>
<th>Assembly version</th>
<th>Process connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPA640-A/B***</td>
<td>NPT ½”</td>
</tr>
<tr>
<td>CPA640-C/D***</td>
<td>NPT ¾”</td>
</tr>
<tr>
<td>CPA640-E***</td>
<td>NPT 1”</td>
</tr>
<tr>
<td>CPA640-G/I***</td>
<td>M25x1.5</td>
</tr>
</tbody>
</table>

Ordering information

Product page
www.endress.com/cpa640

Configurator
The navigation area is located on the right of the product page.
1. Under 'Device support' click 'Configure your selected product'.
   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 at the top of the screen.

Scope of delivery
The scope of delivery comprises:
- Assembly in the version ordered
- Operating Instructions
## 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 office.

<table>
<thead>
<tr>
<th>Sensors (selection)</th>
<th>pH sensors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceragel CPS71D / CPS71</td>
<td>pH electrode with double-chamber reference system and integrated bridge electrolyte</td>
</tr>
<tr>
<td></td>
<td>Product Configurator on the product page: <a href="http://www.endress.com/cps71">www.endress.com/cps71</a> or <a href="http://www.endress.com/cps71">www.endress.com/cps71</a></td>
</tr>
<tr>
<td></td>
<td>Technical Information TI00245C</td>
</tr>
</tbody>
</table>

| Ceraliquid CPS41D / CPS41 | pH electrode with ceramic junction and KCl liquid electrolyte |
|                          | Product Configurator on the product page: [www.endress.com/cps41](http://www.endress.com/cps41) or [www.endress.com/cps41](http://www.endress.com/cps41) |
|                          | Technical Information TI00079C |

| Tophit CPS471D / CPS471 | Sterilizable and autoclavable ISFET sensor for food and pharmaceutics, process engineering |
|                        | Water treatment and biotechnology |
|                        | Technical Information TI00283C |

| ORP sensors |
| Ceragel CPS72D / CPS72 | ORP electrode with double-chamber reference system and integrated bridge electrolyte |
|                     | Product Configurator on the product page: [www.endress.com/cps72](http://www.endress.com/cps72) or [www.endress.com/cps72](http://www.endress.com/cps72) |
|                     | Technical Information TI00374C |

| Oxygen sensors |
| Oxymax COS22D / COS22 | Sterilizable sensor for dissolved oxygen |
|                    | With Memosens technology or as an analog sensor |
|                    | Product Configurator on the product page: [www.endress.com/cos22](http://www.endress.com/cos22) or [www.endress.com/cos22](http://www.endress.com/cos22) |
|                    | Technical Information TI00446C |