Instructions for use
Adapter for HPLC vials
English (EN)

This document supplements the operating manual of the Centrifuge 5430/5430 R, Centrifuge 5702/5702 R/5702 RH, but does not replace it. Therefore, also read the operating manual. The current version can be found online at www.eppendorf.com.

1 Product description

Adapters for HPLC vials are designed for centrifugation of HPLC vials with max. 1.5 mL filling volume in the following centrifuge/rotor combinations:

- Rotor F-45-18-17-Cryo in Centrifuge 5430/5430 R
- Rotor F-45-18-17-Cryo in Centrifuge 5702/5702 R/5702 RH.

2 Safety notes

- Prior to using HPLC vials, observe manufacturer specifications on resistance to centrifugation (max. g-force).
- Do not exceed the maximum tube length of 33 mm (without cap) so the tubes can be optimally supported by the adapters.
- Do not exceed a g-force of 3 500 × g at a max. load of 9.5 g per rotor bore (adapter + vial + contents). At a load of up to 8.7 g per rotor bore, the adapters can be centrifuged at max. g-force (rcf)/rotational speed (rpm).
- Load the rotor symmetrically. When doing so, follow the loading instructions included in the instructions for use of the centrifuge.

3 Cleaning and Disinfection

- Use a mild cleaning agent for cleaning.
- Use alcohol (ethanol, isopropanol) or disinfectants containing alcohol for the disinfection.

   The adapter for HPLC vials can be autoclaved (121° C, 20 min).
4 Technical data

For the Centrifuge 5430/5430 R, note that the \( g \)-force displayed during switch-over is standardized to the corresponding rotor without adapter and, for the Centrifuge 5702/5702 R/5702 RH, standardized to the A-4-38 rotor. You can achieve the following maximum \( g \)-forces (rcf) at maximum speed (rpm) when adapters are used:

<table>
<thead>
<tr>
<th>Rotor, centrifuge</th>
<th>max. centrifugation radius</th>
<th>Max. g-force (rcf)/speed (rpm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-45-18-17-Cryo,</td>
<td>without adapter: 9.4 cm</td>
<td>8 320 ( g )/8 900 rpm</td>
</tr>
<tr>
<td>Centrifuge 5430/</td>
<td>with adapter for HPLC vials: 8.3 cm</td>
<td>7 350 ( g )/8 900 rpm</td>
</tr>
<tr>
<td>5430 R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F-45-18-17-Cryo,</td>
<td>without adapter: 9.4 cm</td>
<td>2 030 ( g )/4 400 rpm</td>
</tr>
<tr>
<td>Centrifuge 5702/</td>
<td>with adapter for HPLC vials: 8.3 cm</td>
<td>1 800 ( g )/4 400 rpm</td>
</tr>
<tr>
<td>5702 R/5702 RH</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Max. allowed tube lengths without cap | 33 mm
Adapter bore (Ø) | 11.8 mm
Material | Polypropylene

You can calculate the \( g \)-force (rcf) for a special adapter using the following formula according to DIN 58 970:

\[
rcf = 1.118 \cdot 10^{-5} \cdot n^2 \cdot r_{\text{max}}, \quad n: \text{rotational speed (rpm)}, \quad r_{\text{max}}: \text{max. centrifugation radius (cm)}
\]

Example: The max. centrifugation radius of the adapter for HPLC vials is 8.3 cm in the F-45-18-17-Cryo rotor. A max. \( g \)-force of 3 500 \( g \) is reached at 6 142 rpm.

5 Ordering information

<table>
<thead>
<tr>
<th>Order no. (International)</th>
<th>Order no. (North America)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5427 708.006</td>
<td>5427708006</td>
<td>Adapter used in F-45-18-17-Cryo for 1.5 mL HPLC vials, 18 pieces</td>
</tr>
</tbody>
</table>