NOWPak® Canister System Pressure Dispense Connector

Thread-on connector with anodized aluminum body

ND-CD series pressure dispense connectors provide a clean, convenient, and completely sealed method for dispensing chemicals from NOWPak® canisters. The connectors are used together with breakseals, aluminum closures, diptubes, and replacement liners. ND-CD connectors are for use with 4- to 200-liter size canisters.

APPLICATIONS

- Photoresist/color resist
- Low-viscosity material for microelectronics applications
- Other liquid material coating markets

FEATURES & BENEFITS

- Maximizes chemical utilization
- Minimizes defects associated with particles and microbubbles
- Enhances chemical compatibility performance and cleanliness
- Provides improved protection for moisture-sensitive materials
## SPECIFICATIONS

<table>
<thead>
<tr>
<th>Materials of construction</th>
<th>Wetted parts</th>
<th>Probe</th>
<th>PTFE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid outlet fitting</td>
<td>PTFE, compression style</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary probe O-ring seal</td>
<td>Chemraz®</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonwetted parts</td>
<td>Upper connector body</td>
<td>Aluminum</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lower connector body</td>
<td>Aluminum</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Retainer</td>
<td>Polypropylene</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gas inlet fitting</td>
<td>PBT</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bushing</td>
<td>PTFE</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cap screws</td>
<td>Stainless steel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Secondary probe O-ring seal</td>
<td>Chemraz</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Probe to retainer O-ring seal</td>
<td>EPDM</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Connector to overpack O-ring seal</td>
<td>EPDM</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cleanroom bag</td>
<td>Polyethylene</td>
<td></td>
</tr>
</tbody>
</table>

### Weight

| Weight | 0.8 kg (1.8 lbs) |

### Tube connections

| Tube connections | Per part number designation on page 5 |

### Dispense method

| Dispense method | Pressure or pump |

### Thread type

| Thread type | 2.25 Acme double start |

### Performance

| Performance | Operating pressure | 103 kPa (15 psi) maximum (within the U.S.) |
|            | 207 kPa (30 psi) maximum (outside of the U.S.) |
| Fluid temperature | 25°C (77°F) |

### Manufacturing standards

| Manufacturing standards | Fabricated and tested in a Class 5 cleanroom as per International Standard ISO 14644-1:* Cleanrooms and associated controlled environments – Part 1: Classification of air cleanliness. |

### Cleanliness

| Cleanliness | Connector to be free from lubricants and other extraneous foreign materials consistent with Entegris' processes and procedures. |

*ISO standard certification is kept up to date as necessary to remain current and effective to be able to demonstrate compliance with up-to-date ISO requirements.*
**DIMENSIONS**

**ND-CD-SA Type (Slotted)**

Slot in the upper connector body for the tubing to pass through.

**ND-CD-SB Type (Strain Relief)**

Holes in the upper connector body for the tubing to pass through. These holes prevent the fitting from being turned by the tubing.

**ND-CD-SA Connector**

104 mm (4.1") Nominal

Ø89 mm (3.5") Nominal

**ND-CD-SB Connector**

113 mm (4.5") Nominal

Ø89 mm (3.5") Nominal

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Liquid fitting per configuration table</td>
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<tr>
<td>2</td>
<td>1</td>
<td>Gas inlet fitting per configuration table</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>Upper connector</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>Pressure in O-ring seal, EPDM</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>Probe to retainer O-ring seal, EPDM</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>Retainer</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>Connector to overpack O-ring seal, EPDM</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
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<th>Description</th>
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<tbody>
<tr>
<td>8</td>
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<td>Probe</td>
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<tr>
<td>9</td>
<td>1</td>
<td>Lower connector</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>Secondary probe O-ring seal, Chemraz</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>Primary probe O-ring seal, Chemraz</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>Pressure relief valve (optional, not shown in images above) ND-CD-SA and ND-CD-SB: 15 psi</td>
</tr>
</tbody>
</table>
**DIMENSIONS (CONTINUED)**

**ND-CD-XC Type**

- Optional pressure relief valve
- Liquid outlet fitting
- Gas inlet fitting

**ND-CD-XC Connector**

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
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</thead>
<tbody>
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<td>1</td>
<td>1</td>
<td>Liquid fitting per configuration table</td>
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<tr>
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<td>1</td>
<td>Pressure relief valve (optional) ND-CD-XC: 35 psi</td>
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<tr>
<td>3</td>
<td>1</td>
<td>Upper connector</td>
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<td>Gas inlet fitting per configuration table</td>
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<td>1</td>
<td>Gasket, upper connector to retainer</td>
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<tr>
<td>6</td>
<td>1</td>
<td>Lower connector</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>1</td>
<td>Retainer</td>
</tr>
<tr>
<td>8</td>
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<td>Connector to overpack O-ring seal, EPDM</td>
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<tr>
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<td>Probe</td>
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<tr>
<td>11</td>
<td>1</td>
<td>Primary probe O-ring seal, Chemraz</td>
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</tbody>
</table>
SHIPPING INFORMATION

Labeling Each connector is labeled with the part number, batch number/serial number, and date of manufacture. Each shipping carton is labeled with the part number, batch number, quantity of connectors, and date of manufacture.

Packaging Each connector is double bagged (cleanroom processed and heat sealed in a PE inner bag; then heat sealed in a PE outer bag), then packaged in a corrugated shipping carton, lined on top and bottom with bubble wrap.

ORDERING INFORMATION

NOWPak Canister System Pressure Dispense Connector: part number

ND-CD – – – –

Keycode
Blank = No keycode
K01 = 01
K04 = 04
K09 = 09

Valving options
Blank = No pressure relief or check valve
VYN = Pressure relief with no check valve
VNY = Check valve with no pressure relief valve
VYY = Check valve and pressure relief valve

Gas inlet fitting size
A = ¼” SMC elbow
B = 6 mm SMC elbow
C = ⅜” SMC straight (200 L)
D = 6 mm SMC straight
Z = No gas inlet fitting

Liquid outlet fitting size
A = ¼” Flowell™ elbow
B = ⅜” Flowell elbow
C = 6 mm Flowell elbow
D = 8 mm Flowell elbow
E = 10 mm Flowell elbow
F = ¼” Flowell straight
G = ⅜” Flowell straight
H = 6 mm Flowell straight
I = 8 mm Flowell straight
J = 10 mm Flowell straight
K = 10 mm Flowell bulkhead elbow
Z = No liquid outlet fitting

Connector style
A = Slotted
B = Strain relief
C = Bulkhead (X model [200 L] only)

Connector size
S = Standard (40 L and smaller)
X = Large without pressure bleed assembly (200 L)
## ORDERING INFORMATION (CONTINUED)

### Accessories

<table>
<thead>
<tr>
<th>Part number</th>
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<tbody>
<tr>
<td>NA-30</td>
<td>O-ring replacement kit* which contains:</td>
</tr>
<tr>
<td></td>
<td>QUANTITY</td>
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<td>10</td>
</tr>
<tr>
<td></td>
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</tr>
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<td></td>
<td>3</td>
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<tr>
<td>200939-C</td>
<td>Retainer gasket, quantity of 1</td>
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<tr>
<td>NA-27</td>
<td>O-ring extraction/maintenance kit</td>
</tr>
<tr>
<td>NA-06</td>
<td>Liner removal tool, for 4- to 40-liter canister sizes</td>
</tr>
<tr>
<td>DA-04</td>
<td>Liner removal tool, for 200-liter size canisters</td>
</tr>
</tbody>
</table>

*NA-30 kit components are also available for purchase separately (quantity of 1 each per part number).