

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



ND-CD series pressure dispense connector

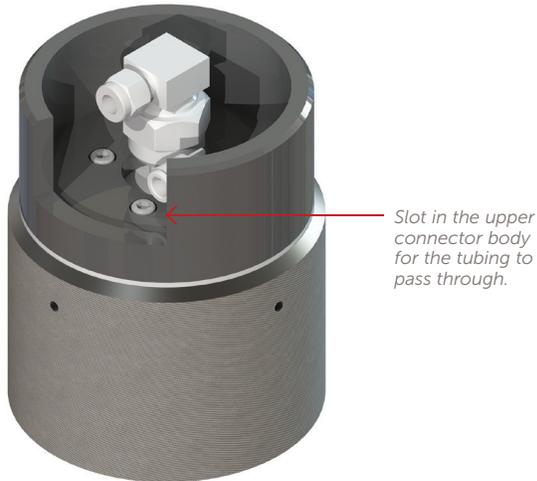
SPECIFICATIONS

Materials of construction	Wetted parts	Probe	PTFE
		Liquid outlet fitting	PTFE, compression style
		Primary probe O-ring seal	Chemraz®
	Nonwetted parts	Upper connector body	Aluminum
		Lower connector body	Aluminum
		Retainer	Polypropylene
		Gas inlet fitting	PBT
		Bushing	PTFE
		Cap screws	Stainless steel
		Secondary probe O-ring seal	Chemraz
		Probe to retainer O-ring seal	EPDM
		Connector to overpack O-ring seal	EPDM
		Cleanroom bag	Polyethylene
Weight	0.8 kg (1.8 lbs)		
Tube connections	Per part number designation on page 8		
Dispense method	Pressure or pump		
Thread type	2.25 Acme double start		
Performance	Operating pressure	206.8 kPa (30.0 psi) maximum Customers should consult local operating pressure regulations as regulations vary from region to region. For example, in the U.S., the pressure regulation is 103.4 kPa (15.0 psig) maximum.	
	Fluid temperature	25°C (77°F)	
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	Connector to be free from lubricants and other extraneous foreign materials consistent with Entegris' processes and procedures.		

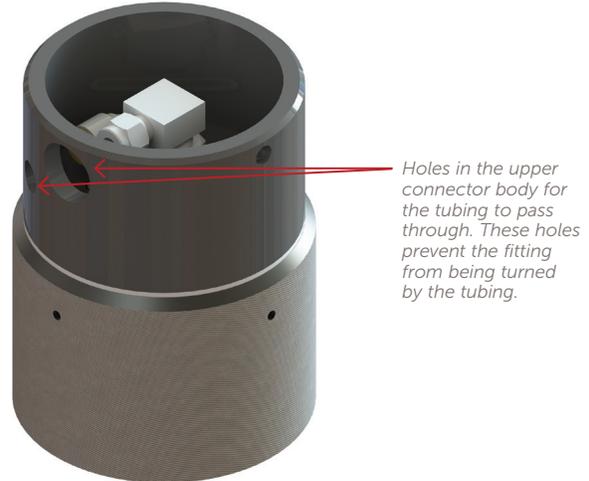
*ISO standard certification is kept up to date as necessary to remain current and effective to be able to demonstrate compliance with up-to-date ISO requirements.

DIMENSIONS

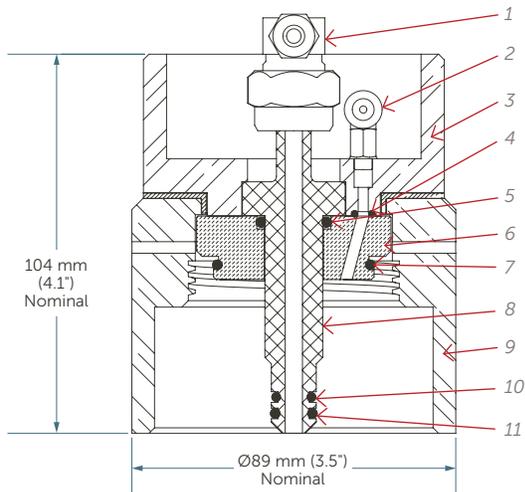
ND-CD-SA Type (Slotted)



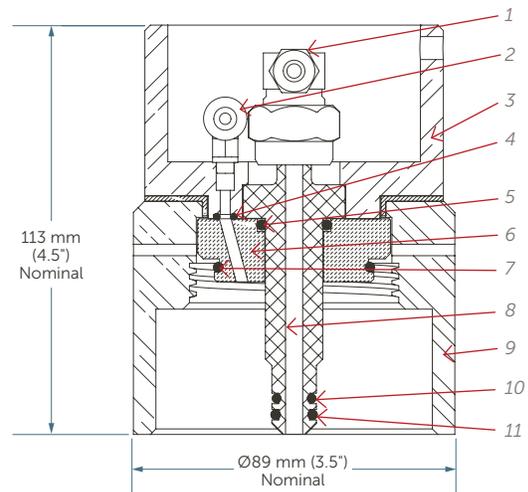
ND-CD-SB Type (Strain Relief)



ND-CD-SA Connector



ND-CD-SB Connector



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

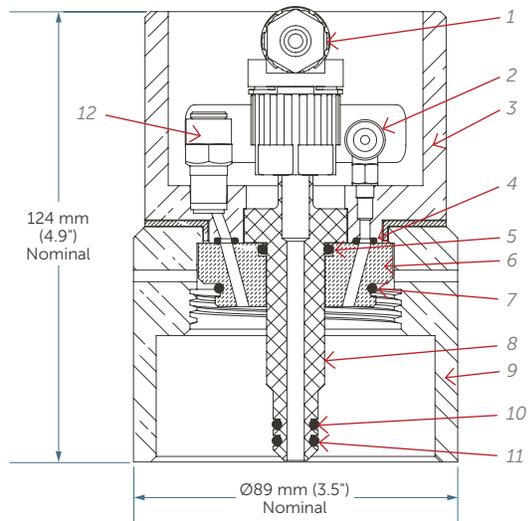
Item	Quantity	Description
8	1	Probe
9	1	Lower connector
10	1	Secondary probe O-ring seal, Chemraz
11	1	Primary probe O-ring seal, Chemraz
12	1	Pressure relief valve (optional, not shown in images above) ND-CD-SA and ND-CD-SB: 15 psig

DIMENSIONS

ND-CD-SD Type (Slotted, Extended Height),
(for use with the Flowell 80 Series liquid outlet options only)



ND-CD-SD Connector

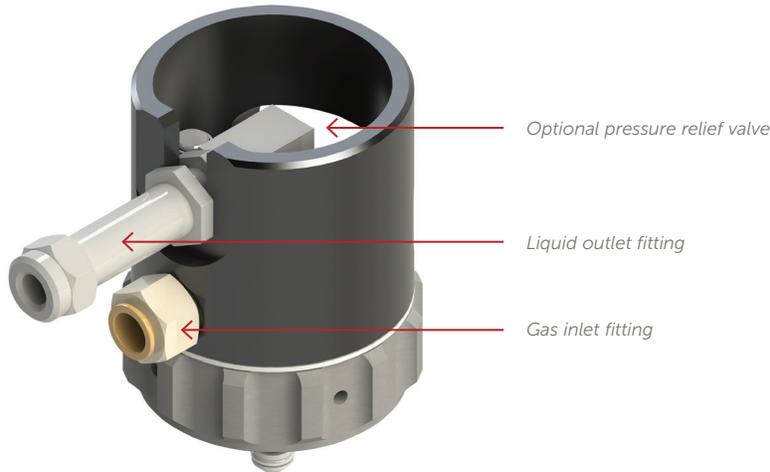


Item	Quantity	Description
1	1	Liquid fitting per configuration table
2	1	Gas inlet fitting per configuration table
3	1	Upper connector
4	1	Pressure in O-ring seal, EPDM
5	1	Probe to retainer O-ring seal, EPDM
6	1	Retainer
7	1	Connector to overpack O-ring seal, EPDM

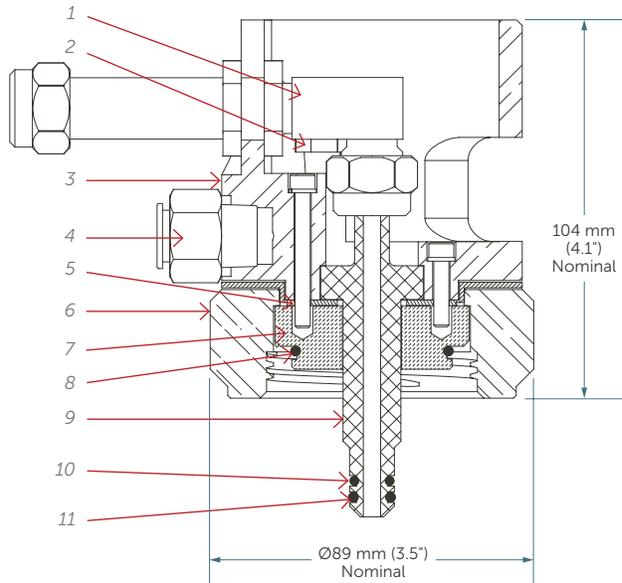
Item	Quantity	Description
8	1	Probe
9	1	Lower connector
10	1	Secondary probe O-ring seal, Chemraz
11	1	Primary probe O-ring seal, Chemraz
12	1	Pressure relief valve standard on ND-CD-SD: 15 psig

DIMENSIONS (CONTINUED)

ND-CD-XC Type

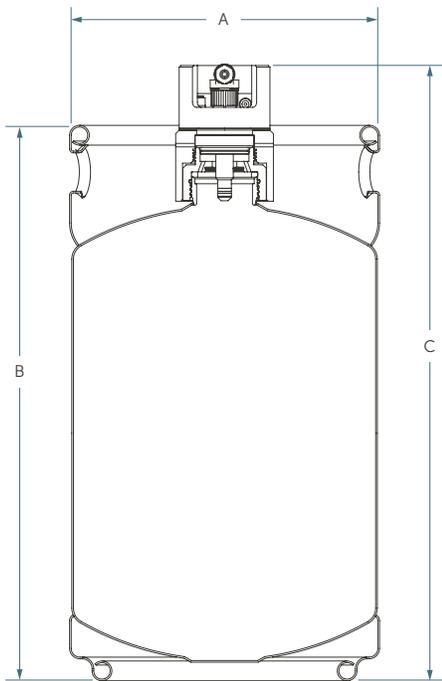


ND-CD-XC Connector



Item	Quantity	Description	Item	Quantity	Description
1	1	Liquid fitting per configuration table	7	1	Retainer
2	1	Pressure relief valve (optional) ND-CD-XC: 35 psig	8	1	Connector to overpack O-ring seal, EPDM
3	1	Upper connector	9	1	Probe
4	1	Gas inlet fitting per configuration table	10	1	Secondary probe O-ring seal, Chemraz
5	1	Gasket, upper connector to retainer	11	1	Primary probe O-ring seal, Chemraz
6	1	Lower connector			

ND-CD Dispense Connector Dimensions with Connector Installed



Note: The "C" dimensions shown in the table below represent the maximum height for the ND-CD connector installed on a canister. Actual dimensions may be less, depending upon the specific connector configuration.

Dimensions			A	B	C	C	C	C
Size	Canister part number	Liner part number	Canister Diameter	Canister only height	Total Maximum Height – Canister with ND-CD-SA installed	Total Maximum Height – Canister with ND-CD-SB installed	Total Maximum Height – Canister with ND-CD-SD installed	Total Maximum Height – Canister with ND-CD-XA installed
4 L	NO-04	NL-004-N700A-1	177 mm (7.0")	307 mm (12.1")	346 mm (13.6")	345 mm (13.6")	359 mm (14.1")	N/A
	NO-04-63*	NL-004-N700C-1 NL-004-NS60A-1 NL-004-T420A-1						
10 L	NO-05	NL-010-N700C-1	228 mm (9.0")	385 mm (15.2")	439 mm (17.3")	438 mm (17.2")	452 mm (17.8")	N/A
	NO-05-63*	NL-010-T420A-1						
18 L	NO-09	NL-018-N700C-1	228 mm (9.0")	618 mm (24.3")	672 mm (26.4")	671 mm (26.4")	685 mm (27.0")	N/A
	NO-09-63*	NL-018-T650A-1 NL-018-T420A-1						
19 L	NO-08	NL-019-N700C-1	278 mm (10.9")	461 mm (18.2")	519 mm (20.4")	518 mm (20.4")	532 mm (20.9")	N/A
	NO-08-63*	NL-019-NS60A-1 NL-019-NS60C-1 NL-020-T650A-1 NL-020-T420A-1						
	NO-08A-63*	NL-019-N700C-1 NL-019-NS60A-1 NL-019-NS60C-1 NL-020-T650A-1 NL-020-T420A-1	280 mm (11.0")	461 mm (18.2")	519 mm (20.4")	518 mm (20.4")	532 mm (20.9")	N/A

*Canister with modified buttress 63 mm thread.

Dimensions			A	B	C	C	C	C
Size	Canister part number	Liner part number	Canister Diameter	Canister only height	Total Maximum Height – Canister with ND-CD-SA installed	Total Maximum Height – Canister with ND-CD-SB installed	Total Maximum Height – Canister with ND-CD-SD installed	Total Maximum Height – Canister with ND-CD-XA installed
20 L	NO-07*	NL-019-N700C-1 NL-020-T650B-1 NL-020-T420B-1	282 mm (11.1")	506 mm (19.9")	551 mm (21.7")	550 mm (21.7")	565 mm (22.2")	N/A
40 L	NO-40 NO-40-63* NO-40A NO-40A-63*	NL-040-N700D-1 NL-040-NS60A-1 NL-040-NS60D-1 NL-040-T650A-1	317 mm (12.5")	714 mm (28.1")	761 mm (30.0")	760 mm (29.9")	775 mm (30.5")	N/A
200 L	NO-200 NO-200A NO-200A-4	NL-200-N700F-1 NL-200-N700K-1 NL-200-NS60F-1 NL-200-NS60G-1 NL-200-NS60K-1 DL-1-T650-1 NL-200-T650K-1 NL-200-T650M-1	608 mm (23.9")	1,002 mm (39.4")	N/A	N/A	N/A	1,040 mm (41.0")

Note: Liners are also available in a liner-plus-diptube combination. Please see the individual liner data sheets for liner-plus-diptube part numbers.

*Canister with modified buttress 63 mm neck thread.

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 = 1/4" SMC elbow
 B = 6 mm SMC elbow
 C = 1/2" SMC straight (200 L)
 D = 6 mm SMC straight
 Z = No gas inlet fitting

Liquid outlet fitting size

A = 1/4" Flowell™ 30 Series elbow	I = 8 mm Flowell 30 Series straight
B = 3/8" Flowell 30 Series elbow	J = 10 mm Flowell 30 Series straight
C = 6 mm Flowell 30 Series elbow	K = 10 mm Flowell 30 Series bulkhead elbow
D = 8 mm Flowell 30 Series elbow	L = 1/4" Flowell™ 80 Series elbow
E = 10 mm Flowell 30 Series elbow	M = 3/8" Flowell 80 Series elbow
F = 1/4" Flowell 30 Series straight	Z = No liquid outlet fitting
G = 3/8" Flowell 30 Series straight	
H = 6 mm Flowell 30 Series straight	

Connector style

A = Slotted (S connector size, 40 L and smaller canister)
 B = Strain relief (S connector size, 40 L and smaller canister)
 C = Bulkhead (X connector size, 200 L size canister only)
 D = Slotted, extended height (Flowell 80 Series elbow liquid outlet options L and M only, S (Standard) connector size, 40 L and smaller canister)

Connector size

S = Standard (40 L and smaller canister)
 X = Large without pressure bleed assembly (200 L size canister only)

ORDERING INFORMATION (CONTINUED)

Accessories

Part number	Description					
NA-30*	O-ring replacement kit* which contains:					
	QUANTITY	COMPONENT PART NUMBER*	DESCRIPTION	ND-CD-SA, SB ITEM # (PAGE 3)	ND-CD-XC ITEM # (PAGE 4)	RECOMMENDED TIMING FOR REPLACEMENT**
	10	200088	Primary and secondary probe O-ring, Chemraz	10, 11	10, 11	6 months
	5	200332-C	Connector to closure seal, EPDM	7	8	6 months
	3	200293-C	Pressure in O-ring, EPDM	4	—	12 months
	3	200331	Probe to retainer O-ring, EPDM	5	—	12 months
200939-C	Retainer gasket for 200 L size connectors, quantity of 1			—	5	6 months
NA-27	O-ring extraction/maintenance kit					
NA-06	Liner removal tool, for 4- to 40-liter canister sizes					
DA-04	Liner removal tool, for 200-liter size canisters					

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

**The frequency of O-ring replacement depends on the connector length of service, frequency of canister changes, chemical characteristics, and user conditions. Inspect the O-rings every time the ND-CD connector is removed from a canister. If the O-rings are worn or damaged, they should be replaced.

FOR MORE INFORMATION

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit entegris.com and select the [Contact Us](#) link to find the customer service center nearest you.

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