ErgoNOW[™] Bottle System Key-coded Connector

ErgoNOW[™] connectors support pressure, pressure assist, or pump dispense of chemicals with misconnect prevention and an ergonomic design for ease of use

The ErgoNOW™ dispense connector offers mechanical and electronic misconnect prevention. It is designed for use with the NOWPak® Liner-based bottle system or PDMPak® bottle system for pressurized applications. Used in conjunction with the SmartCap™ or IntelliCap™ closure, it snaps into place only when the connector and closure key codes match.



APPLICATIONS

- PL-type ErgoNOW connectors provide indirect pressure assist or pump delivery of chemical using the NOWPak liner-based bottle system.
- PD-type ErgoNOW connectors provide indirect pressure dispense using the PDMPak bottle system or NOWPak canister system.

FEATURES & BENEFITS

- Key-coded system helps prevent dispensing the wrong material
- Snap on/easy release design provides easy installation and removal of the connector
- Self-centering keyed retainer ensures perfect alignment of the connector with the SmartCap closure
- LED provides visual indication that the connector is installed correctly (for connectors with the sensor option)

- Standard pressure relief valve provides safer system operation
- Safety interlock mechanism prevents connector from accidental release during pressure dispense operation
- Sealed delivery system ensures safe chemical delivery and helps prevent external contamination



SPECIFICATIONS

Dispense method	PLXXXXXXXXXX-KEY (PDXXXXXXXXXX-KEY		Pressure Assist	
Operation		PL ErgoNOW Connector	PD ErgoNOW Connector	
	Operating pressure	34 kPa (5.0 psig)*	103 kPa (15.0 psig)	
	Pressure relief valve	48 kPa (7.0 psig)**	138 kPa (20.0 psig)**	
Materials of construction	Wetted parts	Probe	PTFE	
	-	Liquid outlet fitting	PFA	
		Probe O-ring seals	Kalrez [®] , Chemraz [®] , or Perfrez [®]	
	Nonwetted parts	Connector body	Polypropylene	
		Gas inlet fitting	Stainless steel	
		Gas inlet nozzle O-ring seals	EPDM, Viton®, or FKM	
		Keyed retainer	Delrin®, Noryl®, Ultem® 1000, or PEEK	
	-	Strain relief	Nylon and polypropylene (not preassembled by Entegris)	
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. 100% pressure decay tested using high-purity nitrogen.			
Cleanliness	Classification of air cl	eanliness. 100% pressure decay t from lubricants and other foreig	ested using high-purity nitrogen.	
Cleanliness	Connector to be free processes and procec Each connector body optionally, a custome code. The PE inner ba	from lubricants and other foreig dures. is labeled with the part number, er-specified chemical description ig is labeled with the part number ure. The carton is labeled with the		
	Classification of air	from lubricants and other foreig dures. is labeled with the part number, er-specified chemical description ig is labeled with the part number ure. The carton is labeled with the	n materials consistent with Entegris' batch number for traceability, and as determined by the SmartCap keyer, the batch number, the quantity and e part number, the batch number, the	
Labeling	Classification of air	from lubricants and other foreign dures. Tis labeled with the part number, ir-specified chemical descriptioning is labeled with the part number are. The carton is labeled with the of manufacture.	n materials consistent with Entegris' batch number for traceability, and as determined by the SmartCap keyer, the batch number, the quantity and e part number, the batch number, the	

^{*}Maximum, up to 2 minutes duration on the NOWPak bottle.

^{**}Nominal cracking pressure.

^{***}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.

Tube Connections

	OPTIONS	PFA FITTING TYPE	CONNECTS TO TUBING SIZE (OUTER DIAMETER)			
Liquid outlet	А	Elbow, Super 300 Type Pillar® thinwall tube	1/4"			
	В	Elbow, Flowell™ 60 series, low profile	1/4"			
	С	Elbow, Entegris Flaretek® (use strain relief option T or Z)	1/4"			
	D	Elbow, Super 300 Type Pillar, thinwall tube	3/8"			
	E	Elbow, Super Type Pillar	3/8"			
	F	Elbow, Entegris Flaretek (no strain relief)	3/8"			
	J	Elbow, Flowell 60 series (no strain relief)	3/8"			
	К	Elbow, Flowell 60 series, low profile	6 mm			
	L	Elbow, Super Type Pillar	1/4"			
	М	Elbow, Flowell 60 series, molded version (use strain relief option T or Z)	1/4"			
	OPTIONS	DESCRIPTION				
Gas inlet	А	5/32" tube Quick Connect and gas fitting kit (see page 4 for gas fitting kit information)	r additional			
	В	½" tube Quick Connect (no gas fitting kit)				
	С	½" tube Quick Connect (no gas fitting kit)				
	D	½" tube Swagelok® fitting (no gas fitting kit)				
	Е	1/8" FNPT thread with Quick Connect stem (no gas fitting	kit)			
	F	1/8" FNPT thread (no Quick Connect stem, no gas fitting ki	it)			
	Z	No gas inlet fitting (only the tee fitting with PRV installed)				

TEE MANIFOLD WITH PRESSURE RELIEF VALVE (ALL GAS FITTING TYPES)	GAS INLET FITTING OPTION*	GAS INLET FITTING	ADDITIONAL PARTS INCLUDED — GAS FITTING KIT
Pressure relief valve Tee manifold	A	5/32" OD tube Quick Connect	Adapter fitting, 5/32" stem to 1/8" female NPT 1/8" New-Machine Quick Connect stem (par number CA-00MP NPT 1/8) Reducer for 1/8" tube
	В	1/4" OD tube Quick Connect	
	С	1/8" OD tube Quick Connect	
	D	1/4" OD tube, Swagelok	
	E	1/8" OD FNPT thread with Quick Connect stem	
	F	Ø	
	Z	No gas inlet fitting (only the tee fitting with PRV installed)	

^{*} Reference ordering information on page 8.

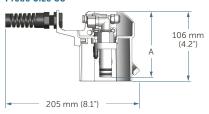
Proximity Sensor

	OUTPUT TYPE					
Item	NPN	PNP				
Operation mode	Normally open	Normally open				
Supply voltage	12-24 VDC (Voltage limit including ripple 10-38 VDC)	12-24 VDC (Voltage limit including ripple 10-38 VDC)				
Maximum load current	200 mA	200 mA				
Current consumption (no load)	10 mA (3 mA typical)	10 mA (3 mA typical)				
Wire gauge	24 AWG	24 AWG				
PVC cable configuration	Brown = positive supply voltage Blue = negative supply voltage Black = signal lead	Brown = positive supply voltage Blue = negative supply voltage Black = signal lead				
Connector options	Tyco® Electronics (formerly AMP) connector, Part Numbers 4-1473562-3 (connector) and 5-1473571-3 (junction box) Molex® connector, Part Number 50-57-9403 No connector	No connector				
CE compliant	Yes	Yes				

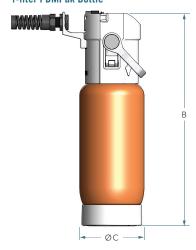
DIMENSIONS

PD (Pressure Dispense) Connector

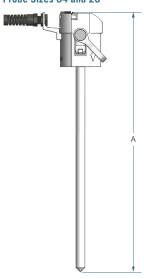
Side View Probe Size 00



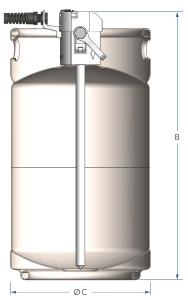
ErgoNOW Connector on a 1-liter PDMPak Bottle



Side View Probe Sizes 04 and 20



ErgoNOW Connector on a 20-liter NOWPak Canister

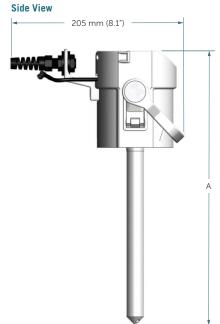


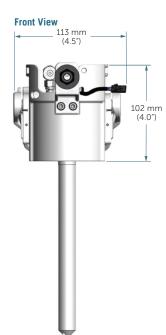
Connector type	Container	Probe size option	Container size	Dimension A height (top of connector to bottom of probe)	Dimension B height (top of connector to bottom of container)	Dimension C width (container diameter)
PD (pressure	PDMPak bottle	00	1 L	100 mm (4.0")	324 mm (12.8")	99 mm (3.9")
dispense)		04	4 L	347 mm (13.6")	368 mm (14.5")	175 mm (6.9")
	Canister (Modified buttress 63 mm thread)	20	20 L	521 mm (20.5")	539 mm (21.2")	282 mm (11.1")

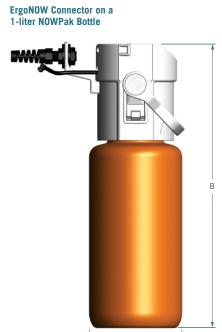
Note: Unless otherwise indicated, all numeric values are nominal.

DIMENSIONS

PL (Pump Dispense) Connector







ØC -

Dimension A height Dimension B height Connector Probe size Container (top of connector to (top of connector to Dimension C width type Container option size bottom of probe) bottom of bottle) (container diameter) PL NOWPak 01 1 L 291 mm (11.5") 304 mm (12.0") 99 mm (3.9") bottle (pump dispense) 01 2.5 L 291 mm (11.5") 303 mm (11.9") 149 mm (5.9") 04 4 L 320 mm (12.6") 332 mm (13.1") 175 mm (6.9") 10 L 10 401 mm (15.8") 412 mm (16.2") 230 mm (9.1") 20 20 L 459 mm (18.1") 474 mm (18.7") 304 mm (12.0")

Note: Unless otherwise indicated, all numeric values are nominal.

ORDERING INFORMATION

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ErgoNOW Connector: part number

Contact Entegris to Strain relief options obtain customer-A = Standard strain relief specific key code Keyed retainer material C = NA-118 strain relief 2 = Delrin T = Tall strain relief (for use with 3 = Noryl liquid out options C or M) 4 = Ultem 1000 Y = Short strain relief 5 = PEEK Z = No strain relief Gas fitting options* $A = \frac{5}{32}$ OD tube Quick Connect and gas fitting kit (includes gas fitting kit) $B = \frac{1}{4}$ OD tube Quick Connect (no gas fitting kit) C = 1/8" OD tube Quick Connect (no gas fitting kit) $D = \frac{1}{4}$ " OD tube Swagelok fitting (no gas fitting kit) E = 1/8" OD FNPT thread with Quick Connect stem (no gas fitting kit) F = 1/8" OD FNPT thread (no Quick Connect stem, no gas fitting kit) Z = No gas inlet fitting (only the tee fitting with PRV installed) ····· Proximity sensor type/length/connector options A1 = NPN, normally open sensor, 150 mm (6") long, Tyco Electronics Connector M1 = NPN, normally open sensor, 150 mm (6") long, Molex connector RF = RFID antenna UU = NPN, normally open sensor, 6 m (19.68') long, no connector VV = PNP, normally open sensor, 5 m (16.4") long, no connector ZZ = No sensor (black PE plug) :.... Liquid out fitting options A = Elbow, Super 300 Type Pillar thinwall tube, $\frac{3}{8}$ " $\times \frac{1}{4}$ ", PFA (Includes insert sleeve for 1/4" non-thinwall tube) B = Elbow, Flowell 60 series, 3/8" × 1/4", low profile, PFA C = Elbow, Entegris Flaretek, $\frac{3}{8}$ " $\times \frac{1}{4}$ ", PFA (use strain relief option T or Z) D = Elbow, Super 300 Type Pillar, 3/8" × 3/8", PFA E = Elbow, Super Type Pillar, 3/8" x 3/8", PFA F = Elbow, Entegris Flaretek, 3/8" × 3/8", PFA (use strain relief option Z) J = Elbow, Flowell 60 series, $\frac{3}{8}$ " \times $\frac{3}{8}$ ", PFA (use strain relief option Z) K = Elbow, Flowell 60 series, 3/8" × 6 mm, low profile, PFA L = Elbow, Super Type Pillar, $\frac{3}{8}$ " \times $\frac{1}{4}$ ", PFA M = Elbow, Flowell 60 series, $\frac{3}{8}$ " x $\frac{1}{4}$ ", PFA, molded version (use strain relief option T or Z) ·····Probe O-rings K = Kalrez C = ChemrazP = Perfrez····· Probe size options 00 = Short probe (PD only) 01 = 1 L to 2.5 L (PL only)04 = 4 L10 = 10 L (PL only)20 = 20 L:---- Connector body D = Pressure dispense L = Pump dispense with pressure assist :.... Connector

P = ErgoNOW Connector

^{*}See page 4 for additional gas fitting information.

ErgoNOW accessories and replacement parts:

and replacement parts.				
Part number	Description			
PA-12-XXYYZZ	Kit, retainer only, Delrin			
PA-13-XXYYZZ	Kit, retainer only, Noryl			
PA-14-XXYYZZ	Kit, retainer only, Ultem 1000			
PA-15-XXYYZZ	Kit, retainer only, PEEK			
LKR-AA-XXYYZZ	Kit, keyed retainer, Delrin (contains keyed retainer, hardware, retaining clip, and nozzle O-ring)			
NA-47	SmartCap and IntelliCap tear tab removal tool			
NA-47-SS	SmartCap and IntelliCap tear tab removal tool, stainless steel			
NA-27	O-ring removal tool kit			
NA-51-A-XXYYZZ	Torque tool for SmartCap with keyed insert. Contains NA-51 torque tool body, and NA-51-XXYYZZ keyed insert; NA-51 and NA-51-XXYYZZ are also available for purchase separately			
NA-117*	Upgrade kit, converts SmartProbe to ErgoNOW connector; does not include gas inlet or strain relief			

Part number	Description
NA-117-AA*	Upgrade kit, converts SmartProbe to ErgoNOW connector with gas fitting option A (see pages 3-4 for gas fitting options) and strain relief
NA-117-EA*	Upgrade kit, converts SmartProbe to ErgoNOW connector with gas fitting option E (see pages 3-4 for gas fitting options) and strain relief
NA-117-FA*	Upgrade kit, converts SmartProbe to ErgoNOW connector with gas fitting option F (see pages 3-4 for gas fitting options) and strain relief
PA-09-AX	Gas inlet fitting assembly option A, for ErgoNOW connector
PA-06	Kit, Kalrez O-ring, quantity of 2
400765-C	Gas fitting component, stainless steel bulkhead adaptor fitting for 1/8", New-Machine, cleaned
401209-C	Replacement, stainless steel shouldered nozzle

^{*} Note: When upgrading a SmartProbe connector to an ErgoNOW connector, both the NA-117 upgrade kit of choice and an ErgoNOW replacement keyed retainer must be ordered. The ErgoNOW PA-12-XXYYZZ (Delrin), PA-13-XXYYZZ (Noryl), or PA-14-XXYYZZ (Ultem 1000) keyed retainer should be ordered to match the key code of the original SmartProbe connector or intended chemistry. SmartProbe and ErgoNOW keyed retainers are not interchangeable.

FOR MORE INFORMATION

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit <u>entegris.com</u> and select the <u>Contact Us</u> link to find the customer service center nearest you.

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