



CONNECTION
SOLUTIONS FOR
**LIQUID
COOLING**





TORTURE TESTED AGAIN AND AGAIN AND AGAIN

We want you to be absolutely confident in our liquid cooling connectors. That's why all CPC products are produced in ISO certified Class 8 or better cleanrooms. We start with Design for Quality (DFQ), then materials testing, followed by product testing and torture testing to failure. In addition to published verification reports, our connectors are designed and manufactured to meet the stringent ISO 9001 and ISO 13485 quality standards.

TESTING EXPERTISE

Testing protocols include helium, bubble, and hydrostatic leak testing as well as rigorous conditioning, pressure and mechanical testing, and more for proven reliability. CPC research lab testing capabilities also include material analysis for system-level inquiries.

EVERIS® QDs DESIGNED AND BUILT FOR THERMAL MANAGEMENT

CPC designs and manufactures Everis® quick disconnect couplings (QDs) to specifically meet the demands for high performance in liquid cooling. Everis quick release couplings from CPC are designed to optimize flow while offering excellent durability and ease of use. Everis QD's are compatible with a variety of coolants. Most importantly, Everis quick disconnects' patented non-spill design is ideal for long-term, connected use. Everis QD's rugged reliability is needed for sensitive and critical liquid cooling of electronics environments such as found in high performance computing, EV charging, data centers, 5G, and edge computing as well as medical electronics.

EVERIS® LQ SERIES

Purpose-built liquid cooling non-spill nickel plated brass, aluminum, and stainless steel couplings offer a secure, reliable connection and dripless disconnect.

EVERIS® BLQ SERIES

Engineered specifically for integrated mounting and external locking engagement, these QDs feature ultra-reliable dripless connections and disconnections.

LIQUID COOLING PAGES 05-21

- 05 EVERIS® LQ2:** Liquid cooling non-spill coupling for a secure, reliable connection and dripless disconnect with a nominal flow of 1/8" (3.2 mm).

MATERIAL: Plated brass

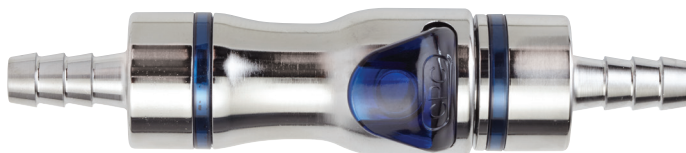
TUBING ID SIZES: 1/4" ID (6.4mm ID)



- 07 EVERIS® LQ4:** Liquid cooling non-spill coupling for a secure, reliable connection and dripless disconnect with a nominal flow of 1/4" (6.4mm).

MATERIAL: Plated brass

TUBING ID SIZES: 1/4" to 3/8" (6.4mm to 9.5mm)



- 09 EVERIS® LQ4S:** Liquid cooling non-spill coupling for a secure, reliable connection and dripless disconnect with a nominal flow of 1/4" (6.4mm).

MATERIAL: Stainless steel

TUBING ID SIZES: 1/4" to 3/8" (6.4mm to 9.5mm)



- 11 EVERIS® LQ6:** Liquid cooling non-spill coupling for a secure, reliable connection and dripless disconnect with a nominal flow of 3/8" (9.5 mm).

MATERIAL: Plated brass

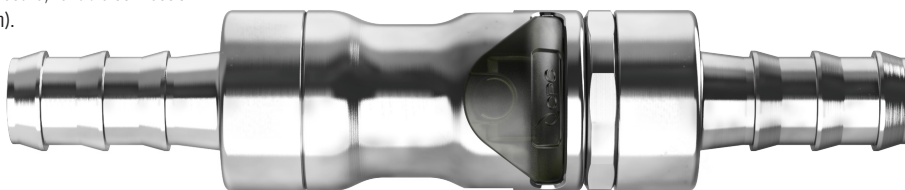
TUBING ID SIZES: 3/8" to 1/2" ID (9.5mm to 12.7mm ID)



- 13 EVERIS® LQ8:** Liquid cooling non-spill coupling for a secure, reliable connection and dripless disconnect with a nominal flow of 1/2" (12.7 mm).

MATERIAL: Plated brass

TUBING ID SIZES: 5/8" ID (15.9 mm ID)



- 15 EVERIS® PLQ4:** Lightweight, reliable, non-spill liquid cooling coupling resistant to galvanic corrosion with a nominal flow of 1/8" (3.2 mm).

MATERIAL: High-performance polymer

TUBING ID SIZES: 1/4" ID (6.4mm ID)



LEGEND



NON-SPILL

LIQUID COOLING PAGES 04-21

- 17 EVERIS® BLQ2:** Ultra-reliable non-spill liquid cooling blind mate coupling for integrated mounting with a nominal flow of 1/8" (3.2 mm).

MATERIAL: Plated brass

TUBING ID SIZES: 1/4" SAE-4



- 19 EVERIS® BLQ4:** Ultra-reliable non-spill liquid cooling blind mate coupling for integrated mounting with a nominal flow of 1/4" (6.4 mm).

MATERIAL: Plated brass



- 21 EVERIS® BLQ6:** Ultra-reliable non-spill liquid cooling blind mate coupling for integrated mounting with a nominal flow of 3/8" (9.5 mm).

MATERIAL: Anodized aluminum



GENERAL PURPOSE PAGES 21-40

- 25 HFC35 & 57:** Withstand harsh environments and offered with or without UV-resistant materials to withstand harmful rays without affecting performance.

MATERIAL: Polysulfone (white), UV-resistant polysulfone (black)

TUBING ID SIZES: 3/8" to 3/4" (9.5mm to 19.0mm)



- 29 NS4:** Non-spill coupling that virtually eliminates spills and minimizes downtime. With a nominal flow of 1/4" (6.4 mm).

MATERIAL: Glass-filled polypropylene, ABS

TUBING ID SIZES: 1/8" to 3/8" (3.2mm to 9.5mm)



- 31 NS6:** Durable, yet lightweight construction that features non-spill valves and is compatible with many chemicals. With a nominal flow of 3/8" (9.5 mm).

MATERIAL: Glass-filled polypropylene

TUBING ID SIZES: 3/8" and 1/2" (9.5mm and 12.7mm)



33 **PLC®:** Widest selection of sizes and configurations offered; resistant to most mild chemical solutions.

MATERIAL: Acetal

TUBING ID SIZES: 1/4" to 3/8" (6.4mm to 9.5mm)



37 **LC:** Durable and able to withstand higher pressure and temperature; easy one-hand connection and disconnection with a nominal flow of 1/4" (6.4 mm) or 3/8" (9.5 mm).

MATERIAL: Chrome-plated brass

TUBING ID SIZES: 1/4" to 3/8" (6.4mm to 9.5mm)



41 **DPC:** Dual port connection in a contoured design that delivers ease-of-use and excellent flow in a compact size.

MATERIAL: Acetal

TUBING ID SIZES: 1/4" to 3/8" (6.4mm to 9.5mm)



LEGEND



NEW PRODUCT



STRAIGHT-THROUGH



SINGLE SHUT-OFF



DOUBLE SHUT-OFF



NON-SPILL

EVERIS® LQ2 SERIES CONNECTOR

Everis® LQ2 Series quick disconnect couplings with 1/8" flow are designed for liquid cooling applications. With a small form factor for tight spaces, Everis LQ2 connectors offer a high-flow capacity to optimize system performance. The couplings' patented design offers reliable long-term connections and provides drip-free connections and disconnections to protect sensitive equipment. EPDM, FVMQ and FKM seals are standard options for compatibility with water, glycol and dielectric coolants. For other material and termination options, see your regional CPC™ sales representative.



SPECIFICATIONS

PRESSURE: Vacuum to 200 psi, 13.8 bar

TEMPERATURE:

Operating*: 0°F to 240°F (-17°C to 115°C)

Storage/Shipping:**

-40°F to 240°F (-40°C to 115°C)

MAXIMUM FLOW AT DISCONNECT:

1.00 gal/min at 0 – 100 psi

0.25 gal/min at 101 – 200 psi

MATERIALS:

Main Components: Plated brass

Valves and Thumb latch: Polysulfone

Valve Springs (wetted): Stainless steel

External spring: Stainless steel

Seals: EPDM standard (FKM, FVMQ options)

Compliance: RoHS, REACH

COLOR: Metallic with Cool Blue or Warm Red

TUBING SIZES: 1/4" ID (6.4 mm ID)

LUBRICANTS: Krytox® PFPE

SPILLAGE:

<0.015 cc per disconnect at 0 psi

<0.063 cc per disconnect rated at 200 psi

AIR INCLUSION: <0.04 cc per connect

FLOW COEFFICIENT: Cv ~0.37 (0.3 Kv)

*FVMQ seal option extends operating temperature to -40°F (-40°C)

WARNING: Pressure, temperature, chemicals, and operating environment can affect the performance of couplings. It is the customer's responsibility to test the suitability of CPC™ products in their own application conditions.

**The specified shipping and storage temperature range is specific to the CPC product and does not apply to external packaging or shipping materials.

FEATURES

Non-spill valve

Redundant multi-lobed seals

High flow capacity with low pressure drop

EPDM, FKM or FVMQ seals

Ergonomic body and latch design

Audible click

Color coding

Low profile

Swivel connection

Single-piece options for insert

BENEFITS

Disconnect under pressure with no spills

Extra protection from leak-causing contaminants and debris

Increased system energy efficiency

Compatibility with common coolants (e.g. glycol/water, mineral oil) and application temperatures

Simple, intuitive one-handed operation

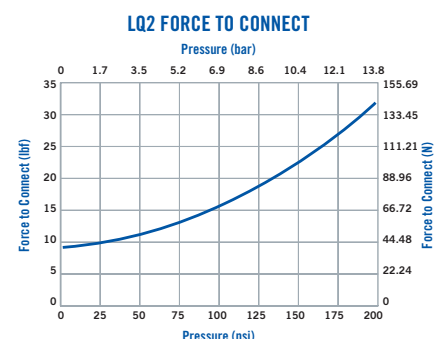
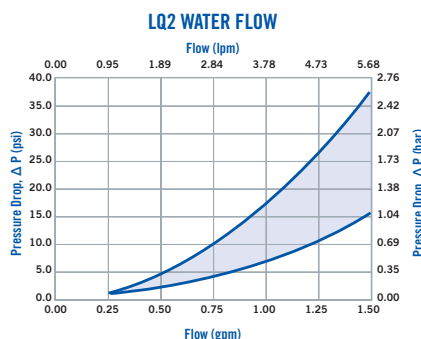
Connection assurance

Instant visual identification of cooling lines

Meets size requirements for space-constrained electronics

Allows user to orient latch or tube to facilitate installation and maintenance

Space saving



These graphs are intended to give you a general idea of the performance capabilities of each product line. Contact CPC for flow of a particular coupling combination.

EVERIS® LQ2 SERIES DIMENSIONS

COUPLING BODIES - Plated brass

TERMINATION	TUBING/THREAD SIZE	METRIC EQ.	SHUTOFF	HEX	A	B	C	D
	1/4" ID	6.4 mm ID	LQ2D1704LRED		0.82 (20.9)	2.09 (53.1)	1.34 (34.0)	
			LQ2D1704LBLU		0.82 (20.9)	2.09 (53.1)	1.34 (34.0)	
	1/4 SAE-4: 7/16-20 ¹		LQ2D3004RED	9/16"	0.82 (20.9)	1.72 (43.6)	1.34 (34.0)	
			LQ2D3004BLU	9/16"	0.82 (20.9)	1.72 (43.6)	1.34 (34.0)	
	1/4" ID	6.4 mm ID	LQ2D3304LRED		0.79 (20.1)	1.64 (41.5)	1.64 (41.5)	1.03 (26.2)
			LQ2D3304LBLU		0.79 (20.1)	1.64 (41.5)	1.64 (41.5)	1.03 (26.2)
	G1/8 ²		LQ2D3102RED	15 mm	0.82 (20.9)	1.67 (42.5)	1.39 (35.3)	
			LQ2D3102BLU	15 mm	0.82 (20.9)	1.67 (42.5)	1.39 (35.3)	

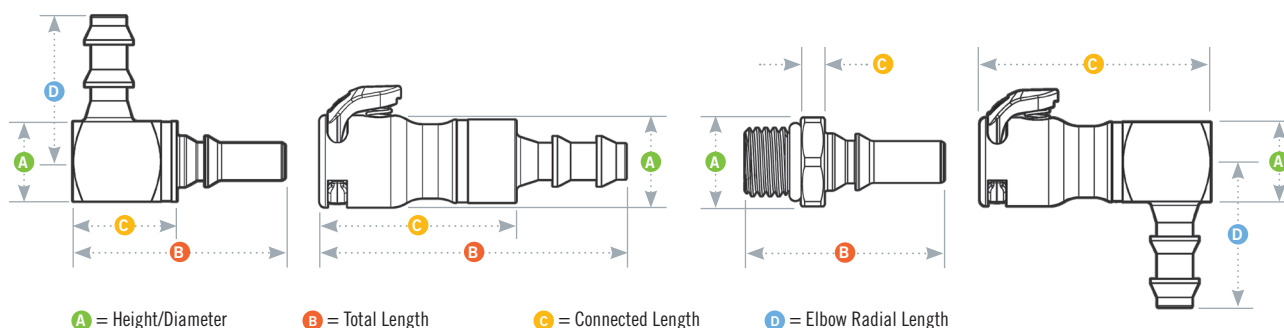
COUPLING INSERTS - Plated brass

TERMINATION	TUBING/THREAD SIZE	METRIC EQ.	SHUTOFF	HEX	A	B	C	D
	1/4" ID	6.4 mm	LQ2D2204LRED		0.56 (14.3)	1.96 (49.8)	0.44 (11.2)	
		ID	LQ2D2204LBLU		0.56 (14.3)	1.96 (49.8)	0.44 (11.2)	
	1/4 SAE-4: 7/16-20 ^{1,3}		LQ2D4604RED	9/16"	0.56 (14.3)	1.28 (32.4)	0.15 (3.8)	
			LQ2D4604BLU	9/16"	0.56 (14.3)	1.28 (32.4)	0.15 (3.8)	
	1/4" ID	6.4 mm	LQ2D2304LRED		0.56 (14.3)	1.51 (38.2)	0.74 (18.7)	1.03 (26.2)
		ID	LQ2D2304LBLU		0.56 (14.3)	1.51 (38.2)	0.74 (18.7)	1.03 (26.2)
	G1/8 ^{2,3}		LQ2D4702RED	15 mm	0.59 (15.0)	1.20 (30.5)	0.15 (3.8)	
			LQ2D4702BLU	15 mm	0.59 (15.0)	1.20 (30.5)	0.15 (3.8)	

All measurements are in inches (millimeters) unless otherwise noted.
For FKM seal option, add V suffix to part number. Example: LQ2D3004REDV
For FVMQ seal option, add FLS suffix to part number. Example: LQ2D3004REDFLS

¹All SAE terminations are compatible with SAE J1926-1 ports.
²All G (BSPP) terminations are compatible with ISO 1179-1 ports.
³One-piece design

PRODUCT DIMENSIONS



DID YOU KNOW

“Spillage” can be easily misconstrued. Depending upon flow size, a typical QD will emit less than 0.02 cc of fluid, which often equates to a wetted surface on the face of the connector.

cpcworldwide.com/Everis-LQ2

EVERIS® LQ4 SERIES CONNECTOR

Everis® LQ4 Series quick disconnect couplings

with 1/4" flow offer a relative high-flow capacity to optimize system performance. The couplings' patented design offers reliable long-term connections and provides drip-free connections and disconnections to protect sensitive equipment. EPDM, FVMQ and FKM seals are standard options for compatibility with water, glycol or dielectric coolants. For other material and termination options see your regional CPC sales representative.



SPECIFICATIONS

PRESSURE: Vacuum to 120 psi, 8.3 bar

TEMPERATURE:

Operating*: 0°F to 240°F (-17°C to 115°C)

Storage/Shipping**:

-40°F to 240°F (-40°C to 115°C)

MAXIMUM FLOW AT DISCONNECT:

3.0 gal/min, 11.3L/min at 0 – 120 psi

MATERIALS:

Main Components: Plated brass

Valves and Thumb latch: Polysulfone

Valve Springs (wetted): Stainless steel

External spring: Stainless steel

Seals: EPDM standard (FKM, FVMQ options)

Compliance: RoHS, REACH

COLOR: Metallic with Cool Blue or Warm Red

TUBING SIZES:

1/4" to 3/8" ID, 6.4 mm to 9.5 mm ID

LUBRICANTS: Krytox® PFPE

SPILLAGE:

0.025 cc per disconnect rated at 0 psi

0.055 cc per disconnect rated at 120 psi

AIR INCLUSION: 0.25 cc per connect

FLOW COEFFICIENT: Cv ~1.4 (1.2 Kv)

*FVMQ seal option extends operating temperature to -40°F (-40°C)

WARNING: Pressure, temperature, chemicals, and operating environment can affect the performance of couplings. It is the customer's responsibility to test the suitability of CPC™ products in their own application conditions.

**The specified shipping and storage temperature range is specific to the CPC product and does not apply to external packaging or shipping materials.

FEATURES

Non-spill valve

Redundant multi-lobed seals

High flow capacity with low pressure drop

EPDM, FKM or FVMQ seals

Ergonomic body and latch design

Audible click

Color coding

Low profile

Swivel connection

Single-piece options for insert

BENEFITS

Disconnect under pressure with no spills

Extra protection from leak-causing contaminants and debris

Increased system energy efficiency

Compatibility with common coolants (e.g. glycol/water, mineral oil) and application temperatures

Simple, intuitive one-handed operation

Connection assurance

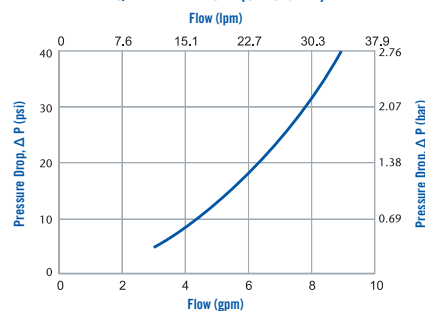
Instant visual identification of cooling lines

Meets size requirements for space-constrained electronics

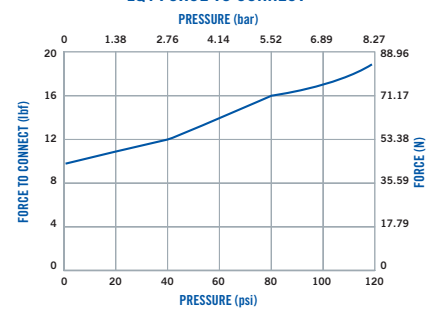
Allows user to orient latch or tube to facilitate installation and maintenance

Space saving

LQ4 WATER FLOW (0-10 GPM)

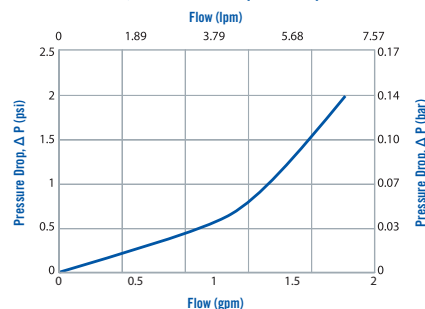


LQ4 FORCE TO CONNECT



These graphs are intended to give you a general idea of the performance capabilities of each product line. Contact CPC for flow of a particular coupling combination.

LQ4 WATER FLOW (0-2 GPM)



cpcworldwide.com/Everis-LQ4

EVERIS® LQ4 SERIES DIMENSIONS

COUPLING BODIES - Plated brass

TERMINATION	TUBING/THREAD SIZE	METRIC EQ.	SHUTOFF	HEX	A	B	C
	IN-LINE LOCKING HOSE BARB	1/4" ID	6.4 mm ID	LQ4D17004LRED	0.98 (24.8)	2.60 (65.9)	1.85 (46.9)
	1/4" ID	6.4 mm ID	LQ4D17004LBLU	0.98 (24.8)	2.60 (65.9)	1.85 (46.9)	
	3/8" ID	9.5 mm ID	LQ4D17006LRED	0.98 (24.8)	2.69 (68.2)	1.81 (46.0)	
	3/8" ID	9.5 mm ID	LQ4D17006LBLU	0.98 (24.8)	2.69 (68.2)	1.81 (46.0)	
	IN-LINE HOSE BARB	1/4" ID	6.4 mm ID	LQ4D17004RED	0.98 (24.8)	2.50 (63.4)	1.85 (46.9)
	1/4" ID	6.4 mm ID	LQ4D17004BLU	0.98 (24.8)	2.50 (63.4)	1.85 (46.9)	
	3/8" ID	9.5 mm ID	LQ4D17006RED	0.98 (24.8)	2.50 (63.4)	1.85 (46.9)	
	3/8" ID	9.5 mm ID	LQ4D17006BLU	0.98 (24.8)	2.50 (63.4)	1.85 (46.9)	
	IN-LINE STRAIGHT THREAD SAE	1/4 SAE-4: 7/16-20 ¹	LQ4D30004RED	13/16"	0.98 (24.8)	2.21 (56.0)	1.85 (46.9)
	1/4 SAE-4: 7/16-20 ¹		LQ4D30004BLU	13/16"	0.98 (24.8)	2.21 (56.0)	1.85 (46.9)
	3/8 SAE-6: 9/16-18 ¹		LQ4D30006RED	13/16"	0.98 (24.8)	2.24 (56.8)	1.85 (46.9)
	3/8 SAE-6: 9/16-18 ¹		LQ4D30006BLU	13/16"	0.98 (24.8)	2.24 (56.8)	1.85 (46.9)
	IN-LINE PIPE THREAD	1/4" NPT	LQ4D10004RED	13/16"	0.98 (24.8)	2.35 (59.6)	1.85 (46.9)
	1/4" NPT		LQ4D10004BLU	13/16"	0.98 (24.8)	2.35 (59.6)	1.85 (46.9)
	3/8" NPT		LQ4D10006RED	13/16"	0.98 (24.8)	2.35 (59.6)	1.85 (46.9)
	3/8" NPT		LQ4D10006BLU	13/16"	0.98 (24.8)	2.35 (59.6)	1.85 (46.9)
	IN-LINE PTF	1/4" ID x 3/8" OD	LQ4D13006RED	13/16"	0.98 (24.8)	2.50 (63.4)	1.85 (46.9)
	1/4" ID x 3/8" OD		LQ4D13006BLU	13/16"	0.98 (24.8)	2.50 (63.4)	1.85 (46.9)
	IN-LINE THREAD G / BSPP	G1/4 ²	LQ4D31004RED	20 mm	0.98 (24.8)	2.29 (58.0)	1.89 (47.9)
	G1/4 ²		LQ4D31004BLU	20 mm	0.98 (24.8)	2.29 (58.0)	1.89 (47.9)
	G3/8 ²		LQ4D31006RED	22 mm	0.98 (24.8)	2.29 (58.0)	1.89 (47.9)
	G3/8 ²		LQ4D31006BLU	22 mm	0.98 (24.8)	2.29 (58.0)	1.89 (47.9)

COUPLING INSERTS - Plated brass

TERMINATION	TUBING/THREAD SIZE	METRIC EQ.	SHUTOFF	HEX	A	B	C
	IN-LINE LOCKING HOSE BARB	1/4" ID	6.4 mm ID	LQ4D22004LRED	0.80 (20.3)	2.44 (62.1)	0.63 (16.0)
	1/4" ID	6.4 mm ID	LQ4D22004LBLU	0.80 (20.3)	2.44 (62.1)	0.63 (16.0)	
	3/8" ID	9.5 mm ID	LQ4D22006LRED	0.80 (20.3)	2.53 (64.4)	0.59 (15.1)	
	3/8" ID	9.5 mm ID	LQ4D22006LBLU	0.80 (20.3)	2.53 (64.4)	0.59 (15.1)	
	IN-LINE HOSE BARB	1/4" ID	6.4 mm ID	LQ4D22004RED	0.80 (20.3)	2.34 (59.5)	0.63 (16.0)
	1/4" ID	6.4 mm ID	LQ4D22004BLU	0.80 (20.3)	2.34 (59.5)	0.63 (16.0)	
	3/8" ID	9.5 mm ID	LQ4D22006RED	0.80 (20.3)	2.34 (59.5)	0.63 (16.0)	
	3/8" ID	9.5 mm ID	LQ4D22006BLU	0.80 (20.3)	2.34 (59.5)	0.63 (16.0)	
	IN-LINE STRAIGHT THREAD SAE	1/4 SAE-4: 7/16-20 ¹	LQ4D46004RED	13/16"	0.88 (22.4)	2.05 (52.2)	0.63 (16.0)
	1/4 SAE-4: 7/16-20 ¹		LQ4D46004BLU	13/16"	0.88 (22.4)	2.05 (52.2)	0.63 (16.0)
	3/8 SAE-6: 9/16-18 ^{1,3}		LQ4D46006RED	11/16"	0.75 (19.1)	1.65 (41.8)	0.19 (4.8)
	3/8 SAE-6: 9/16-18 ^{1,3}		LQ4D46006BLU	11/16"	0.75 (19.1)	1.65 (41.8)	0.19 (4.8)
	IN-LINE PIPE THREAD	1/4" NPT	LQ4D24004RED	13/16"	0.88 (22.4)	2.19 (55.7)	0.63 (16.0)
	1/4" NPT		LQ4D24004BLU	13/16"	0.88 (22.4)	2.19 (55.7)	0.63 (16.0)
	3/8" NPT		LQ4D24006RED	13/16"	0.88 (22.4)	2.19 (55.7)	0.63 (16.0)
	3/8" NPT		LQ4D24006BLU	13/16"	0.88 (22.4)	2.19 (55.7)	0.63 (16.0)
	IN-LINE PTF	1/4" ID x 3/8" OD	LQ4D20006RED	13/16"	0.88 (22.4)	2.34 (59.5)	0.63 (16.0)
	1/4" ID x 3/8" OD		LQ4D20006BLU	13/16"	0.88 (22.4)	2.34 (59.5)	0.63 (16.0)
	IN-LINE STRAIGHT THREAD G / BSPP	G1/4 ²	LQ4D47004RED	20 mm	0.85 (21.6)	2.13 (54.2)	0.67 (17.0)
	G1/4 ²		LQ4D47004BLU	20 mm	0.85 (21.6)	2.13 (54.2)	0.67 (17.0)
	G3/8 ^{2,3}		LQ4D47006RED	22 mm	0.93 (23.6)	1.66 (42.0)	0.19 (4.8)
	G3/8 ^{2,3}		LQ4D47006BLU	22 mm	0.93 (23.6)	1.66 (42.0)	0.19 (4.8)

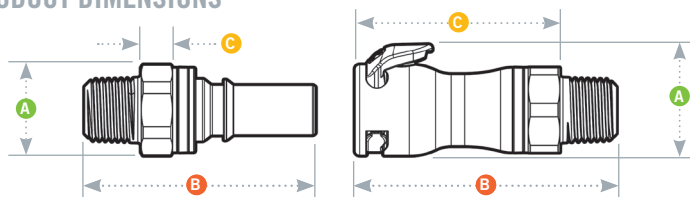
For FKM seal option, add V suffix to part number. Example: LQ4D30006BLUV
For FVMQ seal option, add FLS suffix to part number. Example: LQ4D30006BLUFLS

¹All SAE terminations are compatible with SAE J1926-1 ports.

²All G (BSPP) terminations are compatible with ISO 1179-1 ports.

³One-piece design

PRODUCT DIMENSIONS



A = Height/Diameter

B = Total Length

C = Connected Length

All measurements are in inches (millimeters) unless otherwise noted.

EVERIS® LQ4S SERIES CONNECTOR

Everis® LQ4S Series quick disconnect couplings

Offering a notable 1/4" flow relative to external dimensions, the couplings' patented design offers reliable long-term connections and dry break to protect sensitive equipment. EPDM seals are standard. For other seal options or terminations, contact CPC.



SPECIFICATIONS

PRESSURE: Vacuum to 120 psi, 8.3 bar

TEMPERATURE:

Operating: 0°F to 240°F (-17°C to 115°C)

Storage/Shipping*:

-40°F to 167°F (-40°C to 75°C)

MAXIMUM FLOW AT DISCONNECT:

3.0 gal/min, 11.3L/min at 0 – 120 psi

MATERIALS:

Main Components:

Stainless Steel 303/304

Valves and Thumb Latch: Polyphenylsulfone (PPSU)

Valve Springs (wetted): Stainless steel

External Spring: Stainless steel

Seals: EPDM

Compliance: RoHS, REACH

COLOR:

Steel with Black, Cool Blue or Warm Red

TUBING SIZES:

1/4" to 3/8" ID, 6.4 mm to 9.5 mm ID

LUBRICANTS: Krytox® PFPE

SPILLAGE:

<0.025 cc per disconnect rated at 0 psi

<0.055 cc per disconnect rated at 120 psi

INCLUSION: <0.25 cc per connect

FLOW COEFFICIENT:

Cv~1.4 Max (1.210 Kv)

WARNING: Pressure, temperature, chemicals, and operating environment can affect the performance of couplings. It is the customer's responsibility to test the suitability of CPC™ products in their own application conditions.

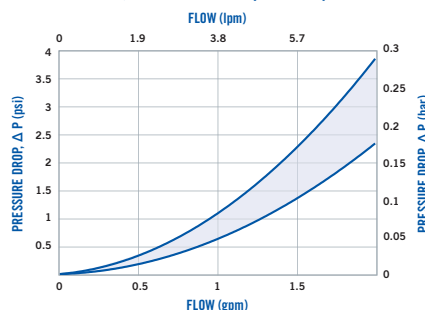
*The specified shipping and storage temperature range is specific to the CPC product and does not apply to external packaging or shipping materials.

FEATURES

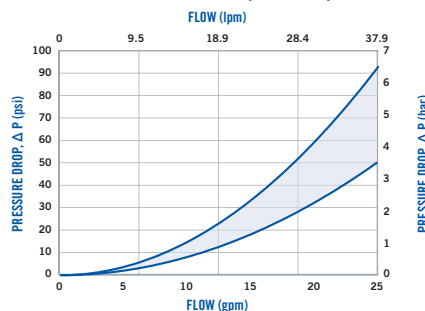
- | | | |
|---|--------|---|
| Dry break, non-spill valves | —————> | Disconnect under pressure with no spills |
| Redundant multi-lobed seals | —————> | Extra protection from leak-causing contaminants and debris |
| High flow capacity with low pressure drop | —————> | Increased system energy efficiency |
| EPDM seals | —————> | Compatibility with common coolants and application temperatures |
| Ergonomic body and latch design | —————> | Simple intuitive one handed operation and audible click signals secure connection |
| Color coding | —————> | Instant visual identification of cooling lines |
| Low profile | —————> | Meets size requirements for space-constrained electronics |
| Barbed and threaded terminations | —————> | System design flexibility, including providing options |

BENEFITS

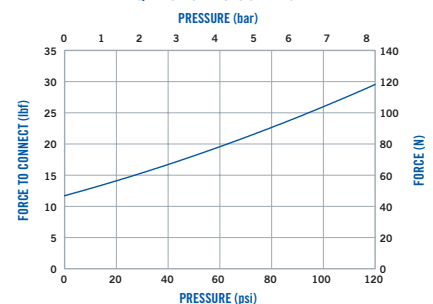
LQ4S WATER FLOW (0-2 GPM)



LQ4S WATER FLOW (0-10 GPM)



LQ4 FORCE TO CONNECT



These graphs are intended to give you a general idea of the performance capabilities of each product line. Contact CPC for flow of a particular coupling combination.

EVERIS® LQ4S SERIES DIMENSIONS

COUPLING BODIES - Stainless steel

TERMINATION	TUBING/THREAD SIZE	METRIC EQ.	SHUTOFF	A	B	C
 IN-LINE HOSE BARB	1/4" ID	6.4 mm ID	LQ4SD17004	0.97 (24.6)	2.50 (63.5)	1.85 (47.0)
	1/4" ID	6.4 mm ID	LQ4SD17004BLU	0.97 (24.6)	2.50 (63.5)	1.85 (47.0)
	1/4" ID	6.4 mm ID	LQ4SD17004RED	0.97 (24.6)	2.50 (63.5)	1.85 (47.0)
 IN-LINE LOCKING HOSE BARB	1/4" ID	6.4 mm ID	LQ4SD17004L	0.97 (24.6)	2.60 (66.0)	1.85 (47.0)
	1/4" ID	6.4 mm ID	LQ4SD17004LBLU	0.97 (24.6)	2.60 (66.0)	1.85 (47.0)
	1/4" ID	6.4 mm ID	LQ4SD17004LRED	0.97 (24.6)	2.60 (66.0)	1.85 (47.0)
	3/8" ID	9.5 mm ID	LQ4SD17006L	0.97 (24.6)	2.71 (68.8)	1.83 (46.5)
	3/8" ID	9.5 mm ID	LQ4SD17006LBLU	0.97 (24.6)	2.71 (68.8)	1.83 (46.5)
	3/8" ID	9.5 mm ID	LQ4SD17006LRED	0.97 (24.6)	2.71 (68.8)	1.83 (46.5)

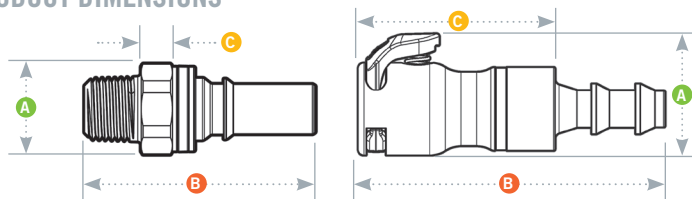
COUPLING INSERTS - Stainless steel

TERMINATION	TUBING/THREAD SIZE	METRIC EQ.	SHUTOFF	A	B	C
 IN-LINE STRAIGHT THREAD PORT SAE	3/8 SAE-6: 9/16-18 ¹	6.4 mm ID	LQ4SD46006	0.74 (18.8)	2.44 (62.0)	0.19 (4.8)
 IN-LINE G THREAD (BSPP)	G3/8	6.4 mm ID	LQ4SD47006	0.74 (18.8)	2.44 (62.0)	0.19 (4.8)

For FKM seal option, add V suffix to part number. Example: LQ4D30006BLUV

¹All SAE terminations are compatible with SAE J1926-1 ports.

PRODUCT DIMENSIONS



- A = Height/Diameter
- B = Total Length
- C = Connected Length

All measurements are in inches (millimeters) unless otherwise noted.

EVERIS® LQ6 SERIES CONNECTOR

Everis® LQ6 Series quick disconnect couplings feature 3/8" flow for liquid cooling of electronics applications. Everis LQ6 connectors offer a high-flow capacity to optimize liquid cooling system performance. The couplings' patented design offers reliable long-term connections and the non-spill valves provide drip-free connections and disconnections to protect sensitive equipment. FKM, FVMQ and EPDM seals are standard options for compatibility with dielectric or glycol/water coolants. For other material and termination options see your regional CPC sales representative.



SPECIFICATIONS

PRESSURE: Vacuum to 120 psi, 8.3 bar

TEMPERATURE:

Operating*: 0°F to 240°F (-17°C to 115°C)

Storage/Shipping**:

-40°F to 240°F (-40°C to 115°C)

MAXIMUM FLOW AT DISCONNECT:

5.0 gal/min, 18.9L/min at 0 – 120 psi

MATERIALS:

Main Components: Plated brass

Valves and Thumb latch: Polysulfone

Valve Springs (wetted): Stainless steel

External spring: Stainless steel

Seals: EPDM standard (FKM, FVMQ options)

Compliance: RoHS, REACH

COLOR: Metallic with Cool Blue or Warm Red

TUBING SIZES:

3/8" to 1/2" ID, 9.5 mm to 12.7 mm ID

LUBRICANTS: Krytox® PFPE

SPILLAGE:

0.03 cc per disconnect rated at 0 psi

0.03 cc per disconnect rated at 120 psi

AIR INCLUSION: 0.33 cc per connect

FLOW COEFFICIENT: Cv ~2.2 (1.9 Kv)

*FVMQ seal option extends operating temperature to -40°F (-40°C)

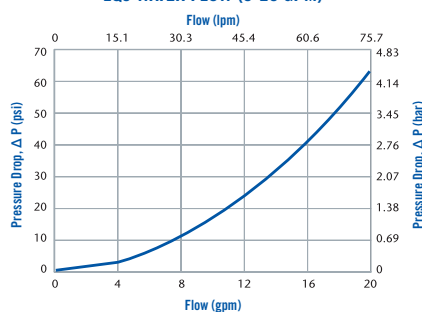
WARNING: Pressure, temperature, chemicals, and operating environment can affect the performance of couplings. It is the customer's responsibility to test the suitability of CPC™ products in their own application conditions.

**The specified shipping and storage temperature range is specific to the CPC product and does not apply to external packaging or shipping materials.

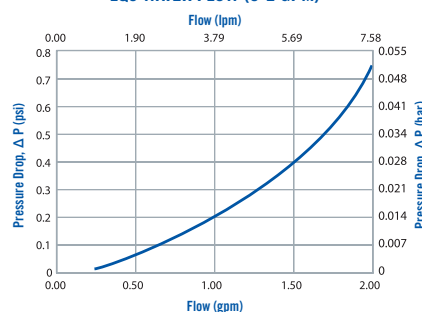
FEATURES

- Non-spill valve → Disconnect under pressure with no spills
- Redundant multi-lobed seals → Extra protection from leak-causing contaminants and debris
- High flow capacity with low pressure drop → Increased system energy efficiency
- EPDM, FKM or FVMQ seals → Compatibility with common coolants (e.g. glycol/water, mineral oil) and application temperatures
- Ergonomic body and latch design → Simple, intuitive one-handed operation
- Audible click → Connection assurance
- Color coding → Instant visual identification of cooling lines
- Low profile → Meets size requirements for space-constrained electronics
- Swivel connection → Allows user to orient latch or tube to facilitate installation and maintenance
- Single-piece options for insert → Space saving

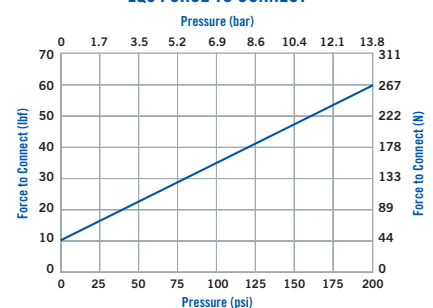
LQ6 WATER FLOW (0-20 GPM)



LQ6 WATER FLOW (0-2 GPM)



LQ6 FORCE TO CONNECT



These graphs are intended to give you a general idea of the performance capabilities of each product line. Contact CPC for flow of a particular coupling combination.



cpcworldwide.com/Everis-LQ6

EVERIS® LQ6 SERIES DIMENSIONS

COUPLING BODIES - Plated brass

TERMINATION	TUBING/THREAD SIZE	METRIC EQ.	SHUTOFF	HEX	A	B	C
	IN-LINE LOCKING HOSE BARB	3/8" ID	9.5 mm ID	LQ6D17006LRED	1.19 (30.1)	2.96 (75.1)	2.08 (52.8)
		3/8" ID	9.5 mm ID	LQ6D17006LBLU	1.19 (30.1)	2.96 (75.1)	2.08 (52.8)
		1/2" ID	12.7 mm ID	LQ6D17008LRED	1.19 (30.1)	3.08 (78.2)	2.08 (52.8)
		1/2" ID	12.7 mm ID	LQ6D17008LBLU	1.19 (30.1)	3.08 (78.2)	2.08 (52.8)
	IN-LINE HOSE BARB	3/8" ID	9.5 mm ID	LQ6D17006RED	1.19 (30.1)	2.73 (69.3)	2.08 (52.8)
		3/8" ID	9.5 mm ID	LQ6D17006BLU	1.19 (30.1)	2.73 (69.3)	2.08 (52.8)
		1/2" ID	12.7 mm ID	LQ6D17008RED	1.19 (30.1)	2.73 (69.3)	2.08 (52.8)
		1/2" ID	12.7 mm ID	LQ6D17008BLU	1.19 (30.1)	2.73 (69.3)	2.08 (52.8)
	IN-LINE STRAIGHT THREAD PORT SAE	3/8 SAE-6: 9/16-18 ¹		LQ6D30006RED	1"	1.19 (30.1)	2.47 (62.7)
		3/8 SAE-6: 9/16-18 ¹		LQ6D30006BLU	1"	1.19 (30.1)	2.47 (62.7)
		1/2 SAE-8: 3/4-16 ¹		LQ6D30008RED	1"	1.19 (30.1)	2.52 (64.0)
		1/2 SAE-8: 3/4-16 ¹		LQ6D30008BLU	1"	1.19 (30.1)	2.52 (64.0)
	IN-LINE PIPE THREAD	3/8" NPT		LQ6D10006RED	1"	1.19 (30.1)	2.58 (65.5)
		3/8" NPT		LQ6D10006BLU	1"	1.19 (30.1)	2.58 (65.5)
	IN-LINE PTF	3/8" ID x 1/2" OD		LQ6D13008RED	1"	1.19 (30.1)	2.91 (73.9)
		3/8" ID x 1/2" OD		LQ6D13008BLU	1"	1.19 (30.1)	2.91 (73.9)
	IN-LINE THREAD G / BSPP	G3/8 ²		LQ6D31006RED	26 mm	1.19 (30.1)	2.59 (67.3)
		G3/8 ²		LQ6D31006BLU	26 mm	1.19 (30.1)	2.59 (67.3)
		G1/2 ²		LQ6D31008RED	26 mm	1.19 (30.1)	2.59 (67.3)
		G1/2 ²		LQ6D31008BLU	26 mm	1.19 (30.1)	2.59 (67.3)

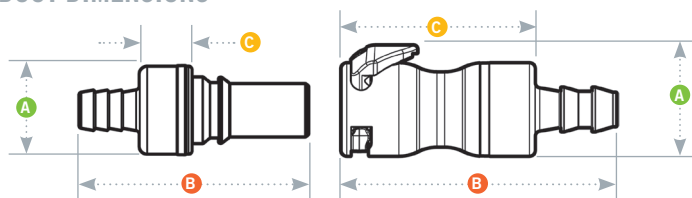
COUPLING INSERTS - Plated brass

TERMINATION	TUBING/THREAD SIZE	METRIC EQ.	SHUTOFF	HEX	A	B	C
	IN-LINE LOCKING HOSE BARB	3/8" ID	9.5 mm ID	LQ6D22006LRED	1.0 (25.3)	2.79 (70.7)	0.65 (16.4)
		3/8" ID	9.5 mm ID	LQ6D22006LBLU	1.0 (25.3)	2.79 (70.7)	0.65 (16.4)
		1/2" ID	12.7 mm ID	LQ6D22008LRED	1.0 (25.3)	2.91 (73.9)	0.65 (16.4)
		1/2" ID	12.7 mm ID	LQ6D22008LBLU	1.0 (25.3)	2.91 (73.9)	0.65 (16.4)
	IN-LINE HOSE BARB	3/8" ID	9.5 mm ID	LQ6D22006RED	1.0 (25.3)	2.56 (65.0)	0.65 (16.4)
		3/8" ID	9.5 mm ID	LQ6D22006BLU	1.0 (25.3)	2.56 (65.0)	0.65 (16.4)
		1/2" ID	12.7 mm ID	LQ6D22008RED	1.0 (25.3)	2.56 (65.0)	0.65 (16.4)
		1/2" ID	12.7 mm ID	LQ6D22008BLU	1.0 (25.3)	2.56 (65.0)	0.65 (16.4)
	IN-LINE STRAIGHT THREAD PORT SAE	3/8 SAE-6: 9/16-18 ¹		LQ6D46006RED	1"	1.10 (27.9)	2.30 (58.4)
		3/8 SAE-6: 9/16-18 ¹		LQ6D46006BLU	1"	1.10 (27.9)	2.30 (58.4)
		1/2 SAE-8: 3/4-16 ^{1,3}		LQ6D46008RED	7/8"	1.10 (27.9)	1.95 (49.6)
		1/2 SAE-8: 3/4-16 ^{1,3}		LQ6D46008BLU	7/8"	1.10 (27.9)	1.95 (49.6)
	IN-LINE PIPE THREAD	3/8" NPT		LQ6D24006RED	1"	1.10 (27.9)	2.41 (61.2)
		3/8" NPT		LQ6D24006BLU	1"	1.10 (27.9)	2.41 (61.2)
	IN-LINE PTF	3/8" ID x 1/2" OD		LQ6D20008RED	1"	1.10 (27.9)	2.74 (69.6)
		3/8" ID x 1/2" OD		LQ6D20008BLU	1"	1.10 (27.9)	2.74 (69.6)
	IN-LINE THREAD G / BSPP	G3/8 ²		LQ6D47006RED	26 mm	1.12 (28.4)	2.42 (61.5)
		G3/8 ²		LQ6D47006BLU	26 mm	1.12 (28.4)	2.42 (61.5)
		G1/2 ^{2,3}		LQ6D47008RED	26 mm	1.12 (28.4)	2.04 (51.8)
		G1/2 ^{2,3}		LQ6D47008BLU	26 mm	1.12 (28.4)	2.04 (51.8)

For FKM seal option, add V suffix to part number. Example: LQ6D17006BLUV
For FVMQ seal option, add FLS suffix to part number. Example: LQ6D17006BLUFLS

¹All SAE terminations are compatible with SAE J1926-1 ports.
²All G (BSPP) terminations are compatible with ISO 1179-1 ports.
³One-piece design

PRODUCT DIMENSIONS



A = Height/Diameter

B = Total Length

C = Connected Length

All measurements are in inches (millimeters) unless otherwise noted.

cpcworldwide.com/LC-Chem-Comp-Guide

EVERIS® LQ8 SERIES CONNECTOR

Everis® LQ8 Series quick disconnect couplings feature 1/2" flow for liquid cooling of electronics applications. Specifically designed for thermal management applications, Everis LQ8 connectors offer a high-flow capacity to optimize liquid cooling system performance. They provide ultra-reliable, dripless connections and disconnections for ease of use and peace of mind given proximity to sensitive or valuable equipment components. LQ8 quick disconnects (QDs) use a patented design which offers reliable long-term connections. EPDM seals are a standard for compatibility with glycol/water coolants. For other material and termination options contact CPC; sales representatives and applications engineers are available to assist with any questions you may have.



SPECIFICATIONS

PRESSURE: Vacuum to 120 psi, 8.3 bar

TEMPERATURE:

Operating: 0°F to 240°F (-17°C to 115°C)

Storage/Shipping*:

-40°F to 240°F (-40°C to 115°C)

MATERIALS:

Main Components: Plated brass

Valves and thumb latch: Polyphenylsulfone (PPSU)

Valve Springs (wetted): Stainless steel

External spring: Stainless steel

Seals: EPDM

Compliance: RoHS, REACH

COLOR: Metallic with Black

TUBING SIZES: 5/8" ID (15.9 mm ID)

LUBRICANTS: Krytox® PFPE

FORCE TO CONNECT: 21 lbs. typical at 0 psi

SPILLAGE:

0.02 cc per disconnect rated at 0 psi

0.07 cc per disconnect rated at 60 psi

AIR INCLUSION: 0.60 cc per connect

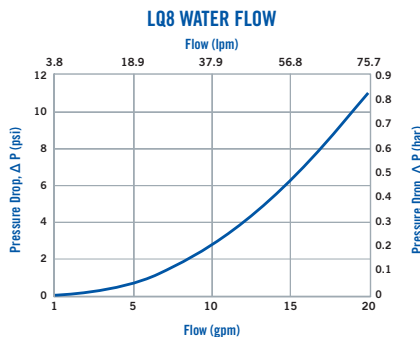
FLOW COEFFICIENT: Cv ~ 6.0 (5.2 Kv)

WARNING: Pressure, temperature, chemicals, and operating environment can affect the performance of couplings. It is the customer's responsibility to test the suitability of CPC™ products in their own application conditions.

*The specified shipping and storage temperature range is specific to the CPC product and does not apply to external packaging or shipping materials.

FEATURES

- | | | |
|---|---|--|
| Non-spill valve | → | Disconnect under pressure with no spills |
| Redundant, multi-lobed seals | → | Extra protection from leak-causing contaminants and debris |
| High flow capacity with low pressure drop | → | Increased system energy efficiency |
| EPDM seals | → | Compatibility with common coolants (e.g., glycol/water) |
| Ergonomic body and latch design | → | Simple, intuitive, one-handed operation |
| Audible click | → | Connection assurance |
| Low profile | → | Meets size requirements for space-constrained electronics applications |
| Single-piece options for insert and body | → | Space saving |



These graphs are intended to give you a general idea of the performance capabilities of each product line. Contact CPC for flow of a particular coupling combination.

DID YOU KNOW

Not all elastomers are compatible with all fluids used in liquid cooling. And low temperature seals may be needed for frigid environments.



cpcworldwide.com/Everis-LQ8

These graphs are intended to give you a general idea of the performance capabilities of each product line. Contact CPC for flow of a particular coupling combination.

EVERIS® LQ8 SERIES DIMENSIONS

COUPLING BODIES - Plated brass

TERMINATION	TUBING/THREAD SIZE	METRIC EQ.	SHUTOFF	HEX	A	B	C
 IN-LINE LOCKING HOSE BARB	5/8" ID	15.9 mm ID	LQ8D17010L		1.58 (40.1)	4.25 (108.0)	2.73 (69.3)
 IN-LINE STRAIGHT THREAD SAE	3/4 SAE-12: 1-1/16-12 ^{1,3}		LQ8D30012	1 - 1/4"	1.58 (40.1)	2.58 (65.6)	2.15 (54.6)
 IN-LINE STRAIGHT THREAD G / BSPP	G 3/4 ²		LQ8D31012		1.58 (40.1)	3.30 (83.8)	2.80 (71.1)

COUPLING INSERTS - Plated brass

TERMINATION	TUBING/THREAD SIZE	METRIC EQ.	SHUTOFF	HEX	A	B	C
 IN-LINE LOCKING HOSE BARB	5/8" ID	15.9 mm ID	LQ8D22010L		1.30 (33.0)	4.00 (101.6)	0.80 (20.4)
 IN-LINE STRAIGHT THREAD SAE	3/4 SAE-12: 1-1/16-12 ^{1,3}		LQ8D46012	1 - 1/4"	1.30 (33.0)	2.40 (61.0)	0.22 (5.6)
 IN-LINE STRAIGHT THREAD G / BSPP	G 3/4 ^{2,3}		LQ8D47012	34 mm	1.40 (35.6)	2.40 (61.0)	0.22 (5.6)

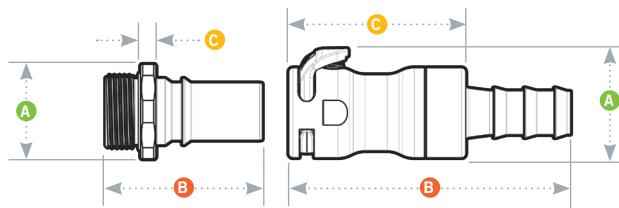
All measurements are in inches (millimeters) unless otherwise noted.

¹All SAE terminations are compatible with SAE J1926-1 ports.

²All G (BSPP) terminations are compatible with ISO 1179-1 ports.

³One-piece design

PRODUCT DIMENSIONS



- A = Height/Diameter
- B = Total Length
- C = Connected Length

The Impact of Ambient Conditions on Liquid Cooling

Download tech guide to learn about how the environment impacts liquid cooling systems and their components.



READ
TECH GUIDE



cpcworldwide.com/LC-Chem-Comp-Guide

EVERIS® PLQ4 SERIES CONNECTOR

Everis® PLQ4 series quick disconnect (QD) sockets

with ¼" flow offer an alternative to metal quick disconnects while providing the same ultra-reliable, dripless connections and disconnections trusted to protect valuable electronics. Manufactured from high-performance polymer, these lightweight QDs feature CPC's patented valve technology and are interoperable with Everis LQ4 and LQ4S series plugs.



SPECIFICATIONS

PRESSURE:

Vacuum to 120 psi, 8.3 bar

TEMPERATURE:

Operating: 41°F to 149°F (5°C to 65°C)

Storage/Shipping*:

-40°F to 167°F (-40°C to 75°C)

MATERIALS:

Main Components: PEI

Valves and Thumb latch: PPSU

Valve Springs (wetted): Stainless steel

Seals: EPDM o-rings

Compliance: RoHS, REACH

COLOR:

Dark Gray with Red, Blue or Black Latch

TUBING SIZES:

1/4" to 3/8" ID (6.4 mm to 9.5 mm ID)

THREAD SIZES:

SAE-4, SAE-6, G 1/4

LUBRICANTS:

Krytox® PFPE

SPILLAGE:

<0.025 cc per disconnect at 0 psi

AIR INCLUSION:

<0.25 cc per connect

FLOW COEFFICIENT:

Cv ~ 1.3 max (1.12Kv)

WARNING: Pressure, temperature, chemicals, and operating environment can affect the performance of couplings. It is the customer's responsibility to test the suitability of CPC™ products in their own application conditions.

*The specified shipping and storage temperature range is specific to the CPC product and does not apply to external packaging or shipping materials.

FEATURES

High-performance polymer construction

Non-spill valve design

Redundant seals in connected state

Ergonomic body and latch design

Shrouded latch

Audible click

Color coding

Barbed and threaded terminations

BENEFITS

Lightweight, resistant to corrosion and condensation, and chemically compatible with common coolants

Dry break to disconnect under pressure with no spills

Extra protection from leaks

Simple, intuitive, one-handed operation

Protection against accidental disconnections

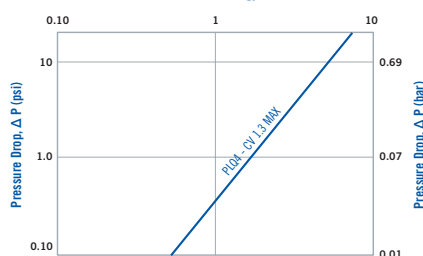
Connection assurance

Instant visual difference in cooling line

Terminations that work with various tubing options including clampless locking hose barb for reinforced tubing

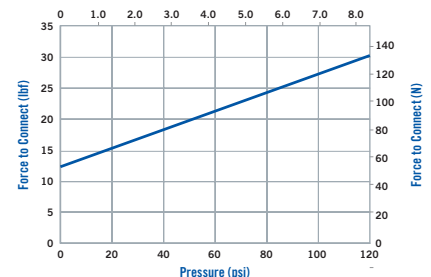
PLQ4 FLOW RATE

Volumetric Flow (gpm)



PLQ4 FORCE TO CONNECT

Pressure (bar)



These graphs are intended to give you a general idea of the performance capabilities of each product line. Contact CPC for flow of a particular coupling combination.



SCAN

cpcworldwide.com/Everis-PLQ4

EVERIS® PLQ4 SERIES DIMENSIONS

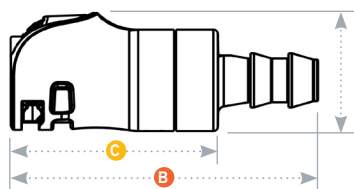
COUPLING SOCKET

TERMINATION	TUBING/THREAD SIZE	METRIC EQ.	SHUTOFF	HEX	A	B	C
	IN-LINE HOSE BARB	1/4" ID	6.4 mm ID	PLQ4D17004BLK	1.04 (26.3)	2.49 (63.3)	1.84 (46.6)
		1/4" ID	6.4 mm ID	PLQ4D17004BLU	1.04 (26.3)	2.49 (63.3)	1.84 (46.6)
		1/4" ID	6.4 mm ID	PLQ4D17004RED	1.04 (26.3)	2.49 (63.3)	1.84 (46.6)
		3/8" ID	9.5 mm ID	PLQ4D17006BLK	1.04 (26.3)	2.49 (63.3)	1.84 (46.6)
		3/8" ID	9.5 mm ID	PLQ4D17006BLU	1.04 (26.3)	2.49 (63.3)	1.84 (46.6)
		3/8" ID	9.5 mm ID	PLQ4D17006RED	1.04 (26.3)	2.49 (63.3)	1.84 (46.6)
	IN-LINE LOCKING HOSE BARB	3/8" ID	9.5 mm ID	PLQ4D17006BLK	1.04 (26.3)	2.72 (69.0)	1.84 (46.6)
		3/8" ID	9.5 mm ID	PLQ4D17006BLU	1.04 (26.3)	2.72 (69.0)	1.84 (46.6)
		3/8" ID	9.5 mm ID	PLQ4D17006LRED	1.04 (26.3)	2.72 (69.0)	1.84 (46.6)
	IN-LINE STRAIGHT THREAD SAE	1/4 SAE-4: 7/16-20 ¹	PLQ4D30004BLK	15/16"	1.06 (26.8)	2.21 (56.2)	1.84 (46.7)
		1/4 SAE-4: 7/16-20 ¹	PLQ4D30004BLU	15/16"	1.06 (26.8)	2.21 (56.2)	1.84 (46.7)
		1/4 SAE-4: 7/16-20 ¹	PLQ4D30004RED	15/16"	1.06 (26.8)	2.21 (56.2)	1.84 (46.7)
		3/8 SAE-6: 9/16-18 ¹	PLQ4D30006BLK	15/16"	1.06 (26.8)	2.23 (56.7)	1.84 (46.7)
		3/8 SAE-6: 9/16-18 ¹	PLQ4D30006BLU	15/16"	1.06 (26.8)	2.23 (56.7)	1.84 (46.7)
		3/8 SAE-6: 9/16-18 ¹	PLQ4D30006RED	15/16"	1.06 (26.8)	2.23 (56.7)	1.84 (46.7)
	IN-LINE THREAD G / BSPP	G1/4 ²	PLQ4D31004BLK	24 mm	1.06 (26.8)	2.28 (57.9)	1.91 (48.5)
		G1/4 ²	PLQ4D31004BLU	24 mm	1.06 (26.8)	2.28 (57.9)	1.91 (48.5)
		G1/4 ²	PLQ4D31004RED	24 mm	1.06 (26.8)	2.28 (57.9)	1.91 (48.5)

¹All SAE terminations are compatible with SAE J1926-1 ports.

²All G (BSPP) terminations are compatible with ISO 1179-1 ports.

PRODUCT DIMENSIONS



A = Height/Diameter

B = Total Length

C = Connected Length

All measurements are in inches (millimeters) unless otherwise noted.

EVERIS® BLQ2 SERIES CONNECTOR

Everis® BLQ2 Series quick disconnect couplings provide ultra-reliable, dripless connections and disconnections that protect valuable electronics. Designed specifically for rack mounted liquid cooling applications, the Everis BLQ2 utilizes patented technology that eliminates drips and is able to withstand long-term connection.



SPECIFICATIONS

PRESSURE:

Vacuum to 200 psi, 13.8 bar

TEMPERATURE:

Operating: 0°F to 240°F (-17°C to 115°C)

Storage/Shipping*:

-40°F to 240°F (-40°C to 115°C)

MAXIMUM FLOW AT DISCONNECT:

1.00 gal/min at 0 - 100 psi

.025 gal/min at 101 - 200 psi

MATERIALS:

Main Components: Plated brass

Valves: Polysulfone

Valve Springs (wetted): Stainless steel

Seals: EPDM

Compliance: RoHS, REACH

COLOR: Metallic

THREAD SIZES: 1/4" SAE-4

LUBRICANTS: Krytox® PFPE

SPILLAGE:

<0.015 cc per disconnect at 0 psi;

<0.063 cc per disconnect at 200 psi

AIR INCLUSION: <0.04 cc per connect

FLOW COEFFICIENT: Cv ~ 0.4 (0.3 Kv)

WARNING: Pressure, temperature, chemicals, and operating environment can affect the performance of couplings. It is the customer's responsibility to test the suitability of CPC™ products in their own application conditions.

*The specified shipping and storage temperature range is specific to the CPC product and does not apply to external packaging or shipping materials.

FEATURES

Non-spill valve

Redundant multi-lobed seals

Innovative valve design

Ruggedness

Axial engagement tolerance

Single-piece options for body & insert

BENEFITS

Disconnect under pressure with no spills

Extra protection from leak-causing contaminants and debris

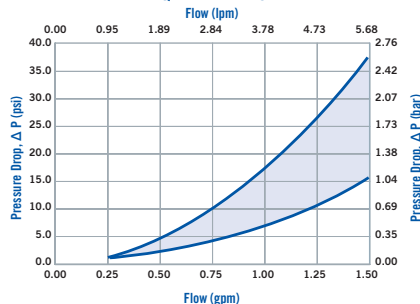
Enables extended periods in connected state

Able to withstand long-term, repeated use

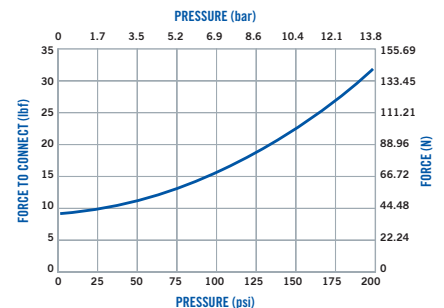
Allows full flow even when not fully engaged

Space saving

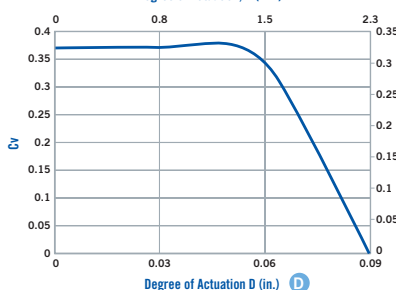
BLQ2 WATER FLOW



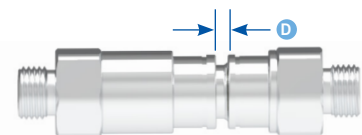
BLQ2 FORCE TO CONNECT



BLQ2 ACTUATION vs Cv



ACTUATION LENGTH



These graphs are intended to give you a general idea of the performance capabilities of each product line. Contact CPC for flow of a particular coupling combination.

EVERIS® BLQ2 SERIES DIMENSIONS

COUPLING BODIES - Plated brass



TERMINATION	TUBING/THREAD SIZE	METRIC EQ.	SHUTOFF	HEX	A	B	C
IN-LINE STRAIGHT THREAD SAE	1/4 SAE-4: 7/16-20 ^{1,2}	N/A	BLQ2D3004	9/16"	0.62 (15.7)	1.31 (33.3)	0.95 (24.1)

COUPLING INSERTS - Plated brass



TERMINATION	TUBING/THREAD SIZE	METRIC EQ.	SHUTOFF	HEX	A	B	C
IN-LINE STRAIGHT THREAD SAE	1/4 SAE-4: 7/16-20 ^{1,2}	N/A	BLQ2D4604	9/16"	0.62 (15.7)	1.32 (33.3)	0.15 (3.8)

All measurements are in inches (millimeters) unless otherwise noted.

¹All SAE terminations are compatible with SAE J1926-1 ports

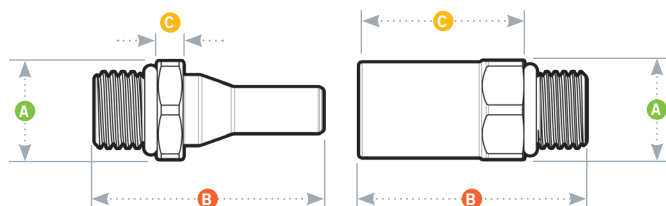
²One-piece design

PRODUCT DIMENSIONS



SCAN

cpcworldwide.com/Everis-BLQ2



A = Height/Diameter

B = Total Length

C = Connected Length

Everis® QD Reliability

QDs designed for long-term, connected use with non-spill valves for dripless connection and disconnection.



EVERIS® BLQ4 SERIES CONNECTOR

Everis® BLQ4 Series quick disconnect couplings provide ultra-reliable, dripless connections and disconnections that protect valuable electronics. Designed specifically for rack mounted liquid cooling applications, Everis BLQ4 utilizes patented technology that eliminates drips and is designed for long-term connected use.

SPECIFICATIONS

PRESSURE:

Vacuum to 120 psi, 8.3 bar

TEMPERATURE:

Operating: 0°F to 240°F (-17°C to 115°C)

Storage/Shipping*:

-40°F to 240°F (-40°C to 115°C)

MAXIMUM FLOW AT DISCONNECT:

3.0 gal/min, 11.3L/min

ENGAGEMENT TOLERANCE:

Coupling must be within 1/8" (3 mm) of fully engaged to achieve maximum flow.

MATERIALS:

Main Components: Plated brass

Valves: Polysulfone

Valve Springs (wetted): Stainless steel

Seals: EPDM

Compliance: RoHS, REACH

COLOR:

Metallic

THREAD SIZES:

Insert: G 1/4, G 3/8, SAE-4, SAE-6

Body: G 1/4, G 3/8, SAE-4, SAE-6, SAE-8

LUBRICANTS:

Krytox® PFPE

SPILLAGE:

<0.025 cc per disconnect at 0 psi;

<0.055 cc per disconnect at 120 psi

AIR INCLUSION:

0.20 cc per connect

FLOW COEFFICIENT:

Cv ~1.4 (1.2 Kv)

WARNING: Pressure, temperature, chemicals, and operating environment can affect the performance of couplings. It is the customer's responsibility to test the suitability of CPC™ products in their own application conditions.

*The specified shipping and storage temperature range is specific to the CPC product and does not apply to external packaging or shipping materials.



FEATURES

Non-spill valves

Redundant seals

Innovative valve design

Rugged construction

Axial engagement tolerance

Single-piece options for body & insert

BENEFITS

Disconnect under pressure with no spills

Extra protection from leak-causing contaminants and debris

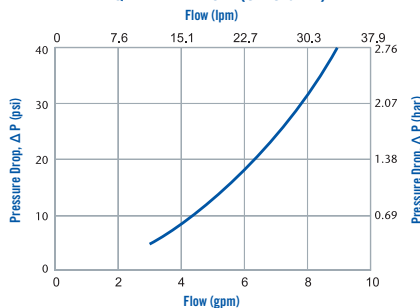
Enables extended periods in connected state

Able to withstand long-term, repeated use

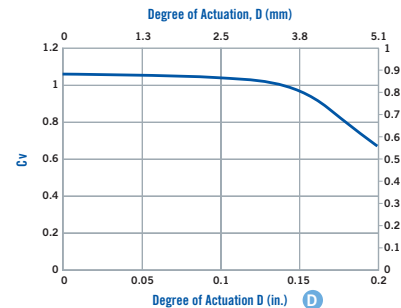
Allows full flow even when not fully engaged

Space saving

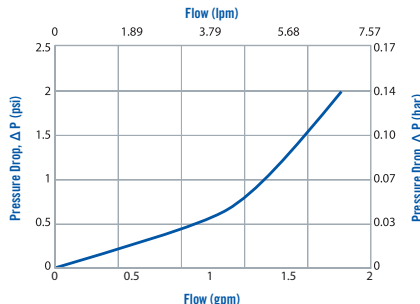
BLQ4 WATER FLOW (0-10 GPM)



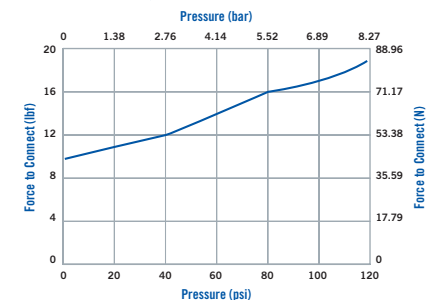
BLQ4 ACTUATION vs Cv



BLQ4 WATER FLOW (0-2 GPM)



BLQ4 FORCE TO CONNECT



These graphs are intended to give you a general idea of the performance capabilities of each product line. Contact CPC for flow of a particular coupling combination.

EVERIS® BLQ4 SERIES DIMENSIONS

COUPLING BODIES - Plated brass



TERMINATION	TUBING/THREAD SIZE	METRIC EQ.	SHUTOFF	HEX	A	B	C
IN-LINE STRAIGHT THREAD SAE	1/4 SAE-4: 7/16-20 ¹	N/A	BLQ4D30004	22 mm	0.93 (23.6)	2.05 (52.1)	1.64 (41.7)
	3/8 SAE-6: 9/16-18 ¹	N/A	BLQ4D30006	22 mm	0.93 (23.6)	2.05 (52.1)	1.64 (41.7)
	1/2 SAE-8: 3/4-16 ^{1,3}	N/A	BLQ4D30008	22 mm	0.90 (22.9)	1.60 (40.6)	1.16 (29.5)
IN-LINE STRAIGHT THREAD G / BSPP	G 1/4 (BSPP) ²	N/A	BLQ4D31004	22 mm	0.93 (23.6)	2.11 (53.6)	1.70 (43.2)
	G 3/8 (BSPP) ²	N/A	BLQ4D31006	22 mm	0.93 (23.6)	2.11 (53.6)	1.70 (43.2)

COUPLING INSERTS - Plated brass



TERMINATION	TUBING/THREAD SIZE	METRIC EQ.	SHUTOFF	HEX	A	B	C
IN-LINE STRAIGHT THREAD SAE	1/4 SAE-4: 7/16-20 ¹	N/A	BLQ4D46004	22 mm	0.93 (23.6)	1.99 (50.5)	0.69 (17.5)
	3/8 SAE-6: 9/16-18 ^{1,3}	N/A	BLQ4D46006	22 mm	0.75 (19.1)	1.49 (37.8)	0.19 (4.8)
IN-LINE STRAIGHT THREAD G / BSPP	G 1/4 (BSPP) ²	N/A	BLQ4D47004	22 mm	0.93 (23.6)	2.05 (52.1)	0.75 (19.1)
	G 3/8 (BSPP) ^{2,3}	N/A	BLQ4D47006	22 mm	0.93 (23.6)	1.49 (37.8)	0.19 (4.8)

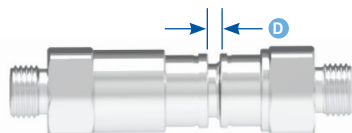
All measurements are in inches (millimeters) unless otherwise noted. Tubing must meet stated inside and outside diameters.

¹All SAE terminations are compatible with SAE J1926-1 ports.

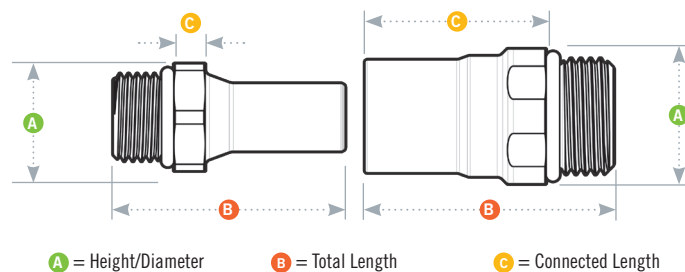
²All G (BSPP) terminations are compatible with ISO 1179-1 ports.

³One-piece design.

ACTUATION LENGTH



PRODUCT DIMENSIONS



cpcworldwide.com/
Everis-BLQ4

EVERIS® BLQ6 SERIES CONNECTOR

Everis® BLQ6 Series quick disconnect couplings Ultra-reliable, no-drip connections for thermal management to help protect valuable electronic systems. Designed specifically for blind mate liquid cooling applications, the BLQ6 Series uses patented technology that eliminates drips and is specifically designed to withstand long-term connection. An optional accessory kit is available for panel mount connections.



SPECIFICATIONS

PRESSURE: Vacuum to 120 psi, 8.3 bar

TEMPERATURE:

Operating: 0°F to 240°F (-17°C to 115°C)

Storage/Shipping*:

-40°F to 240°F (-40°C to 115°C)

MAXIMUM FLOW AT DISCONNECT:

3.0 gal/min, 11.3L/min

ENGAGEMENT TOLERANCE:

Coupling must be within 1/8" of fully engaged to achieve maximum flow.

MATERIALS:

Main Components: Anodized Aluminum

Valves: Polysulfone

Valve Springs (wetted): Stainless steel

Seals: EPDM

Panel Mount Kit: Stainless steel

Compliance: RoHS, REACH

THREAD SIZES:

Insert: SAE-6, G 1/2

Body: SAE-6, G 1/2

LUBRICANTS: Krytox® PFPE

SPILLAGE:

<0.03 cc per disconnect at 0 psi;

<0.03 cc per disconnect at 120 psi

AIR INCLUSION: <0.022 cc per connect

FLOW COEFFICIENT: Cv ~ 2.2 (1.90 Kv)

AXIAL MISALIGNMENT: 1 mm max

WARNING: Pressure, temperature, chemicals and operating environment can affect the performance of couplings. It is the customer's responsibility to test the suitability of CPC's products in their own application conditions.

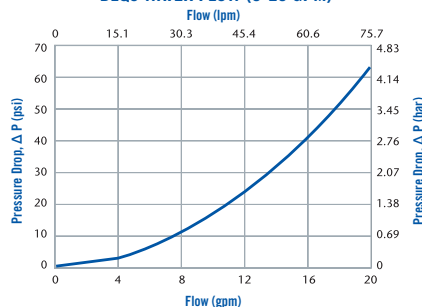
*The specified shipping and storage temperature range is specific to the CPC product and does not apply to external packaging or shipping materials.

FEATURES

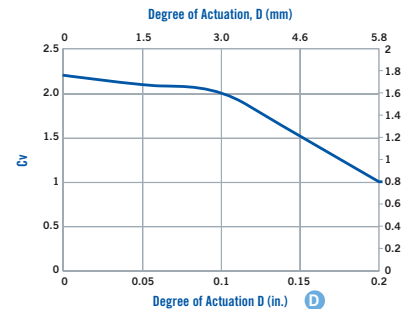
- Non-spill valve → Disconnect under pressure with no spills
- Redundant seals → Extra protection from leak-causing contaminants and debris
- Innovative valve design → Provides reliability for extended periods of operation
- Rugged anodized aluminum → Able to withstand long-term, ongoing and repeated use
- Axial engagement tolerance → Allows full flow even when not fully engaged
- Optional panel mount kit → Enables either the body, insert or both to be panel mounted

BENEFITS

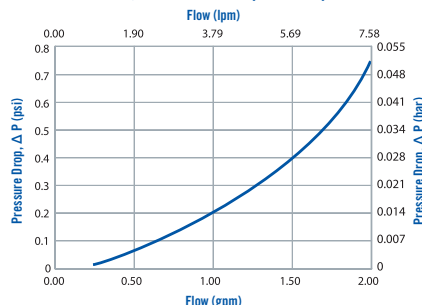
BLQ6 WATER FLOW (0-20 GPM)



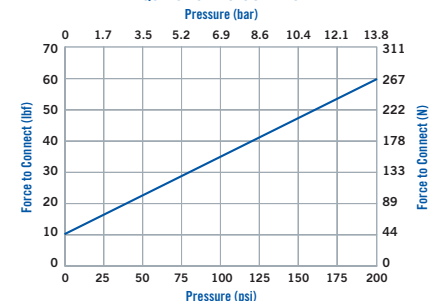
BLQ6 ACTUATION vs Cv



BLQ6 WATER FLOW (0-2 GPM)



BLQ6 FORCE TO CONNECT



These graphs are intended to give you a general idea of the performance capabilities of each product line. Contact CPC for flow of a particular coupling combination.

EVERIS® BLQ6 SERIES DIMENSIONS

COUPLING BODIES - Anodized aluminum



TERMINATION	TUBING/THREAD SIZE	METRIC EQ	SHUTOFF	HEX	A	B	C
IN-LINE STRAIGHT THREAD SAE	3/8 SAE-6: 9/16-18 ¹	N/A	BLQ6D30006	7/8"	0.96 (24.4)	2.08 (52.7)	1.68 (42.8)
IN-LINE STRAIGHT THREAD G / BSPP	G 1/2 ²	N/A	BLQ6D31008	26 mm	1.12 (28.4)	2.26 (57.5)	1.76 (44.7)

COUPLING INSERTS - Anodized aluminum



TERMINATION	TUBING/THREAD SIZE	METRIC EQ	SHUTOFF	HEX	A	B	C
IN-LINE STRAIGHT THREAD PORT SAE	3/8 SAE-6: 9/16-18 ¹	N/A	BLQ6D46006	7/8"	0.96 (24.4)	2.27 (57.7)	0.99 (25.2)
IN-LINE STRAIGHT THREAD G / BSPP	G 1/2 ^{2,3}	N/A	BLQ6D47008	26 mm	1.12 (28.4)	2.00 (50.9)	0.70 (17.8)

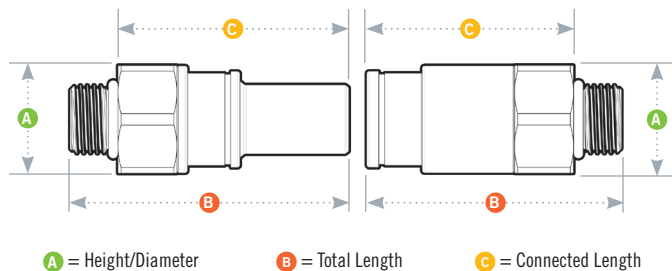
All measurements are in inches (millimeters) unless otherwise noted.

¹All SAE terminations are compatible with SAE J1926-1 ports.

²All G (BSPP) terminations are compatible with ISO 1179-1 ports.

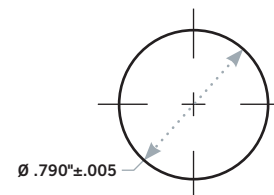
³One-piece design

PRODUCT DIMENSIONS

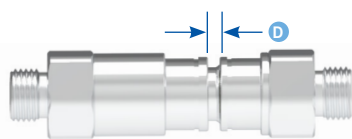


PANEL DIMENSIONS

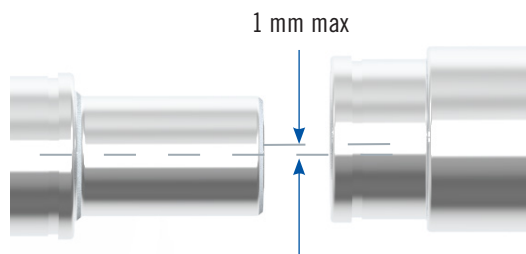
	PANEL OPENING	PANEL THICKNESS MAX.-MIN.
	see drawing	0.075 -0.175"



ACTUATION LENGTH

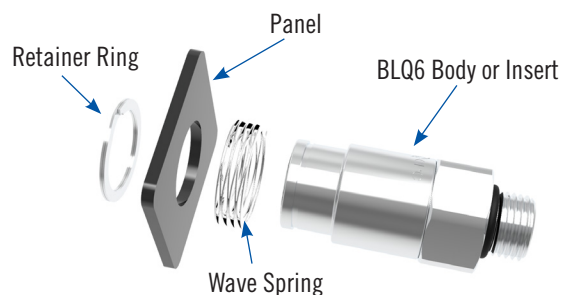


RADIAL TOLERANCE



PANEL MOUNT KIT (P/N BLQ6PMKIT)

Kit includes wave spring and retainer ring only.



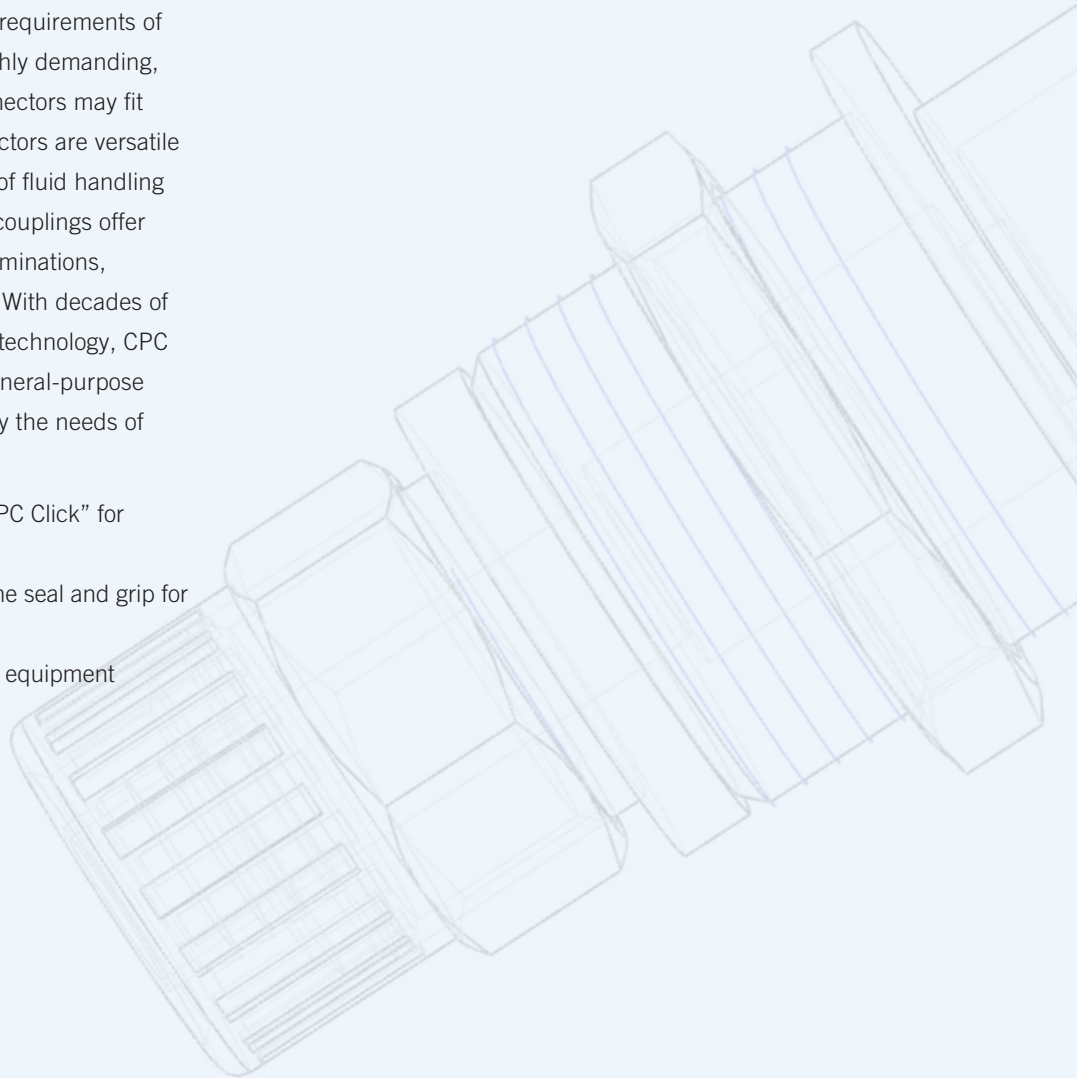
cpcworldwide.com/Everis-BLQ6



Optimize system design and maintenance with effective connections

CPC designs and manufactures EVERIS® quick disconnect couplings to specifically meet the requirements for high performance and reliability in liquid cooling thermal management. For liquid cooling applications that are frequently serviced, require more price competitive components, and/or where robustness and performance requirements of the liquid cooling system are not highly demanding, general-purpose couplings and connectors may fit the bill. CPC general purpose connectors are versatile and engineered to fit a broad range of fluid handling applications. These multifunctional couplings offer a diverse set of options including terminations, configurations, sizes, and materials. With decades of experience in delivering connection technology, CPC engineers have built a portfolio of general-purpose couplings and connectors that satisfy the needs of system designers around the world.

- Thumb latch with an audible “CPC Click” for connection assurance
- Precise hose barbs to improve the seal and grip for various grades of tubing
- Non-spill technology to enhance equipment modularity and serviceability



GENERAL PURPOSE

Couplings and Connectors

HFC35 & 57 SERIES CONNECTORS

HFC35 Series polysulfone couplings are able to withstand demanding applications and feature physical strength, chemical resistance and autoclavability.

HFC57 Series polysulfone couplings are UV resistant and able to withstand continued exposure to harmful UV rays without affecting performance.

Both can operate in harsh environments in temperatures from -40°F to 280°F (-40°C to 138°C) and pressures from vacuum to 125 psi (8.6 bar). An ergonomic design and a large, shrouded thumb latch produce a coupling that is easy to grip and simple to operate. An efficient valve design leads to high flow and exceptionally low spillage. Both series also add bulkhead panel mount, garden hose thread and Hastelloy® C spring options.



SPECIFICATIONS

PRESSURE:

Vacuum to 125 psi, 8.6 bar

TEMPERATURE:

-40°F to 280°F (-40°C to 138°C)

MATERIALS:

Main components and valves:

HFC35 - Polysulfone

HFC57 - UV-resistant polysulfone

THUMB LATCH:

HFC35 - Polysulfone

HFC57 - UV-resistant polysulfone

Valve spring: 316 stainless steel

External springs: 316 stainless steel

O-rings: EPDM

Panel mount gasket: EPDM

Female GHT gasket: FDA EPDM

COLORS:

HCF35 - Natural white, dark gray latch

HCF57 - Black, black latch

TUBING SIZES:

3/8" to 3/4" ID, 9.5mm to 19.0mm ID

WARNING: Pressure, temperature, chemicals, and operating environment can affect the performance of couplings. It is the customer's responsibility to test the suitability of CPC products in their own application conditions. Use the graphs on the following page as a guide. For compression termination specifications: 3/8" OD or 1/2" OD, +0.010/-0.000

FEATURES

Polysulfone (HFC35)

BENEFITS

Physically strong and autoclavable

UV Polysulfone (HFC57)

Physically strong and UV resistant

High efficiency valve

More flow and less spillage in a compact size

Ergonomic design

Easy to grip, simple to operate

Compatible

Mates with HFC12 couplings

DID YOU KNOW

The HFC57 Series polysulfone couplings are UV-resistant and able to withstand continued exposure to harmful rays without affecting performance.

These couplings offer all the same features as our HFC12 and HFC35 Series with the added advantage of UV-resistance to protect the strength and durability of your fluid connections. Use the HFC57 couplings in outdoor applications such as watercraft, lawn irrigation systems and solar heating on roofs and decks where a connector is subjected to the harsh rays of the sun.



cpcworldwide.com/HFC35-57



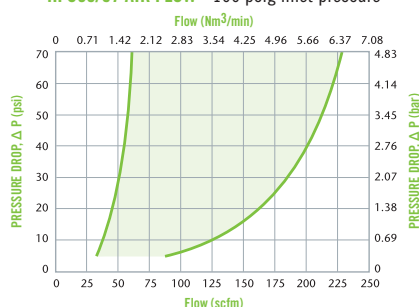
Also available in NSF listed versions for food-based applications, please visit our website for part number information.



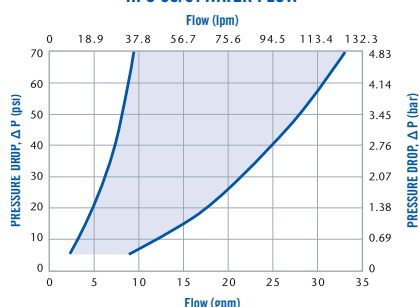
WHEN TO CONSIDER A CUSTOM PROJECT:

- A quick disconnect will add value to product, make it easier to use and more reliable
- Your specification cannot be met by an existing standard CPC product
- Unique requirements, budgets or timing warrant a conversation with CPC

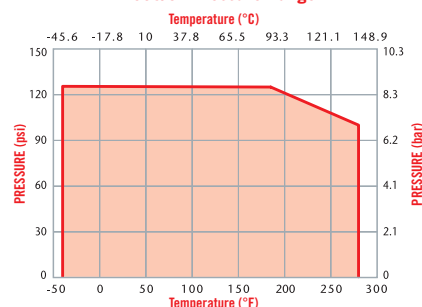
HFC35/57 AIR FLOW • 100 psig inlet pressure



HFC 35/57WATER FLOW



HFC35/37 Pressure Range



These graphs are intended to give you a general idea of the performance capabilities of each product line. The shaded area of each graph represents the operating range of the product family, i.e., upper and lower values are shown. Therefore, depending on the exact coupling configurations selected, you can reasonably expect values to fall within the shaded area.

HFC35 SERIES DIMENSIONS

COUPLING BODIES - Polysulfone

	TERMINATION	TUBING/THREAD SIZE	METRIC EQ	STRAIGHT THRU	SHUTOFF	A	B
	IN-LINE PIPE THREAD	3/8" NPT		HFC10635	HFC10635	1.44 (36.6)	2.73 (69.3)
		3/8" BSPT		HFC10635BSPT	HFC10635BSPT	1.44 (36.6)	2.73 (69.3)
		1/2" NPT		HFC10835	HFC10835	1.44 (36.6)	2.88 (73.2)
		1/2" BSPT		HFC10835BSPT	HFC10835BSPT	1.44 (36.6)	2.88 (73.2)
		3/4" NPT		HFC101235	HFC101235	1.44 (36.6)	3.12 (79.2)
		3/4" BSPT		HFC101235BSPT	HFC101235BSPT	1.44 (36.6)	3.12 (79.2)
	IN-LINE PIPE THREAD (FEMALE)	3/4" GHT		HFC191235GHT	HFC191235GHT	1.44 (36.6)	2.70 (68.6)
		3/4" BSPP		HFC191235BSPP	HFC191235BSPP	1.44 (36.6)	2.70 (68.6)
	BULKHEAD PANEL MOUNT HOSE BARB	3/8" ID	9.5mm ID	HFC16635	HFC16635	1.44 (36.6)	2.82 (71.6)
		1/2" ID	12.7mm ID	HFC16835	HFC16835	1.44 (36.6)	2.82 (71.6)
		5/8" ID	15.9mm ID	HFC161035	HFC161035	1.44 (36.6)	2.94 (74.7)
		3/4" ID	19.0mm ID		HFC161235	1.44 (36.6)	2.94 (74.7)
	IN-LINE HOSE BARB	3/8" ID	9.5mm ID	HFC17635	HFC17635	1.44 (36.6)	2.82 (71.6)
		1/2" ID	12.7mm ID	HFC17835	HFC17835	1.44 (36.6)	2.82 (71.6)
		5/8" ID	15.9mm ID	HFC171035	HFC171035	1.44 (36.6)	2.94 (74.7)
		3/4" ID	19.0mm ID	HFC171235	HFC171235	1.44 (36.6)	2.94 (74.7)

COUPLING INSERTS - Polysulfone

	TERMINATION	TUBING/ THREAD SIZE	METRIC EQ	STRAIGHT THRU	SHUTOFF	A	B	D
	IN-LINE PIPE THREAD (NON-VALVED SHOWN)	3/8" NPT		HFC24635	HFC24635	1.16 (29.5)	1.82/1.94 (46.2/49.3)	
		3/8" BSPT		HFC24635BSPT	HFC24635BSPT	1.16 (29.5)	1.97/2.09 (50.0/53.1)	
		1/2" NPT		HFC24835	HFC24835	1.16 (29.5)	1.97/2.09 (50.0/53.1)	
		1/2" BSPT		HFC24835BSPT	HFC24835BSPT	1.16 (29.5)	1.17/2.09 (29.7/53.1)	
		3/4" NPT		HFC241235	HFC241235	1.23 (31.2)	2.22/2.34 (56.4/59.4)	
		3/4" BSPT		HFC241235GHT	HFC241235BSPT	1.23 (31.2)	2.21/2.33 (56.1/59.2)	
		3/4" GHT		HFC241235GHT	HFC241235GHT	1.23 (31.2)	2.03/2.15 (51.6/54.6)	
	IN-LINE PIPE THREAD (FEMALE) (NON-VALVED SHOWN)	3/4" GHT		HFC261235GHT	HFC261235GHT	1.37 (34.8)	1.79/1.91 (45.5/48.5)	
		3/4" BSPP		HFC261235BSPP	HFC261235BSPP	1.37 (34.8)	1.79/1.91 (45.5/48.5)	
	IN-LINE HOSE BARB (NON-VALVED SHOWN)	3/8" ID	9.5mm ID	HFC22635	HFC22635	1 (25.4)	1.91/2.03 (48.5/51.6)	
		1/2" ID	12.7mm ID	HFC22835	HFC22835	1 (25.4)	1.91/2.03 (48.5/51.6)	
		5/8" ID	15.9mm ID	HFC221035	HFC221035	1 (25.4)	2.03/2.15 (51.6/54.6)	
		3/4" ID	19.0mm ID	HFC221235	HFC221235	1 (25.4)	2.03/2.15 (51.6/54.6)	
	ELBOW HOSE BARB (NON-VALVED SHOWN)	3/8" ID	9.5mm ID	HFC23635	HFC23635	1 (25.4)	1.92/2.04 (48.8/51.8)	0.93 (23.6)
		1/2" ID	12.7mm ID	HFC23835	HFC23835	1 (25.4)	1.96/2.08 (49.8/52.8)	0.93 (23.6)

All measurements are in inches (millimeters) unless otherwise noted. Tubing must meet stated inside and outside diameters.

HFC35 & HFC57 ACCESSORIES

DESCRIPTION	MATERIAL	PART NO.
PANEL MOUNT GASKET REPLACEMENT: FOR SEALING PANEL MOUNT BODIES LISTED ABOVE	EPDM	621200
GHT GASKET REPLACEMENT: FOR SEALING FEMALE THREADS	FDA EPDM	2339400

HFC57 SERIES DIMENSIONS

COUPLING BODIES - UV Polysulfone

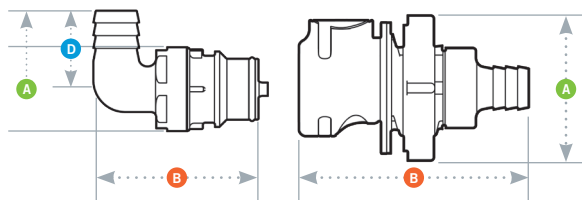
TERMINATION	TUBING/THREAD SIZE	METRIC EQ	STRAIGHT THRU	SHUTOFF	A	B
	IN-LINE PIPE THREAD	3/8" BSPT	HFC10857	HFCD10657BSPT	1.44 (36.6)	2.73 (69.3)
		1/2" NPT		HFCD10857	1.44 (36.6)	2.88 (73.2)
		1/2" BSPT		HFCD10857BSPT	1.44 (36.6)	2.88 (73.2)
		3/4" BSPT		HFCD101257GHT	1.44 (36.6)	3.12 (79.2)
		3/4" GHT		HFCD101257GHT	1.44 (36.6)	2.94 (74.7)
	IN-LINE PIPE THREAD (FEMALE)	3/4" GHT	HFC191257GHT	HFCD191257GHT	1.44 (36.6)	2.70 (68.6)
	BULKHEAD PANEL MOUNT HOSE BARB	3/8" ID		HFCD16657	1.82 (46.2)	2.82 (71.6)
		1/2" ID		HFCD16857	1.82 (46.2)	2.82 (71.6)
		5/8" ID		HFCD161057	1.82 (46.2)	2.94 (74.7)
		3/4" ID		HFCD161257	1.82 (46.2)	2.94 (74.7)
	IN-LINE HOSE BARB	3/8" ID	HFC17657	HFCD17657	1.44 (36.6)	2.82 (71.6)
		1/2" ID	HFC17857	HFCD17857	1.44 (36.6)	2.82 (71.6)
		5/8" ID		HFCD171057	1.44 (36.6)	2.94 (74.7)
		3/4" ID	HFC171257	HFCD171257	1.44 (36.6)	2.94 (74.7)

COUPLING INSERTS - UV Polysulfone

TERMINATION	TUBING/THREAD SIZE	METRIC EQ	STRAIGHT THRU	SHUTOFF	A	B
	IN-LINE PIPE THREAD	3/8" BSPT	HFC24657BSPT	HFCD24657BSPT	1.16 (29.5)	1.84/1.96 (46.7/49.8)
		1/2" BSPT	HFC24857BSPT	HFCD24857BSPT	1.16 (29.5)	1.99/2.07 (50.6/52.6)
		1/2" NPT	HFC24857	HFCD24857	1.16 (29.5)	1.95/2.11 (49.5/53.6)
		3/4" BSPT	HFC241257BSPT	HFCD241257BSPT	1.23 (31.2)	2.19/2.31 (55.6/58.7)
		3/4" GHT	HFC241257GHT	HFCD241257GHT	1.16 (29.5)	2.15/2.27 (54.6/57.7)
	IN-LINE PIPE THREAD (FEMALE) (NON-VALVED SHOWN)	3/4" GHT	HFC261257GHT	HFCD261257GHT	1.37 (34.8)	1.79/1.91 (45.5/48.5)
	IN-LINE HOSE BARB (NON-VALVED SHOWN)	3/8" ID	HFC22657	HFCD22657	1 (25.4)	1.91/2.03 (48.5/51.6)
		1/2" ID	HFC22857	HFCD22857	1 (25.4)	1.91/2.03 (48.5/51.6)
		5/8" ID		HFCD221057	1 (25.4)	2.03/2.15 (51.6/54.6)
		3/4" ID	HFC221257	HFCD221257	1 (25.4)	2.03/2.15 (51.6/54.6)

All measurements are in inches (millimeters) unless otherwise noted. Tubing must meet stated inside and outside diameters. Couplings are pictured with valves unless otherwise noted.

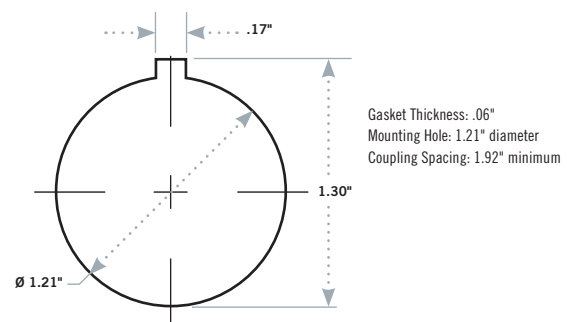
PRODUCT DIMENSIONS



- A = Height/Diameter
- B = Total Length
- D = Elbow Radial Length

PANEL DIMENSIONS

	PANEL OPENING	PANEL THICKNESS MAX.-MIN.
COUPLING BODIES	see drawing	0.25- 0.03



NS4 SERIES CONNECTOR

NS4 Series couplings feature non-spill valves in a compact size, at a great price. Use the NS4 when even a few drops pose problems regarding media cost or environmental regulations. These innovative couplings are lightweight, chemically resistant and easy to use. The non-spill design effectively eliminates spills and minimizes downtime. NS4 couplings are also available with optional RFID (Radio Frequency Identification) capability.

SPECIFICATIONS

PRESSURE:

Vacuum to 120 psi, 8.3 bar

TEMPERATURE:

32°F to 160°F (0°C to 71°C)

MATERIALS:

Main components and valves:

Glass-filled polypropylene with TPV* overmold,
ABS with TPE* soft-touch overmold

Thumb latch: Glass-filled polypropylene, ABS

Valve spring: 316 stainless steel

External spring: 316 stainless steel

O-rings: EPDM

COLOR:

Polypropylene: Gray with dark gray overmold standard; gray with red or blue overmold available†

ABS: White with teal overmold

TUBING SIZES:

1/8" to 3/8" ID, 3.2mm to 9.5mm ID

LUBRICANTS: Krytox® PFPE (inert)

SPILLAGE:

<0.10 cc per disconnect at all rated pressures

INCLUSION: 0.26 cc per connect

WARNING: Pressure, temperature, chemicals, and operating environment can affect the performance of couplings. It is the customer's responsibility to test the suitability of CPC's products in their own application conditions.

*The overmold material TPV (thermoplastic vulcanizate) is used with the NS4 polypropylene couplings. TPV is an alloy of polypropylene thermoplastic and fully vulcanized EPDM rubber. TPV is typically resistant to water, acids and bases. The overmold material TPE (thermoplastic elastomer) is used with the NS4 ABS couplings. TPE is a blend of additives and copolymers in a special formulation that forms extremely durable bonds to the ABS substrate, while offering the traditional properties of soft-touch overmold.

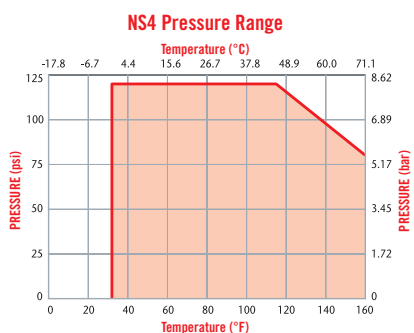
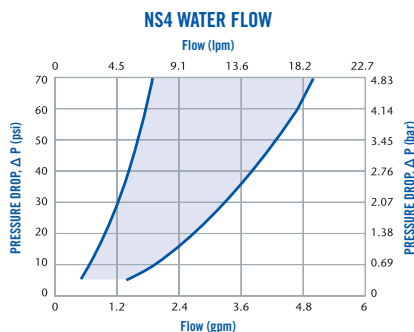
†NOTE: Standard product is gray; color options require a minimum quantity. Please contact CPC for details.



FEATURES

- Non-spill design → Disconnect under pressure with no spills
- Color coding → Instant visual differentiation of media lines
- Glass-filled polypropylene → Durable and compatible with many chemicals
- Medical-grade ABS → Gamma sterilizable

BENEFITS



These graphs are intended to give you a general idea of the performance capabilities of each product line. The shaded area of each graph represents the operating range of the product family, i.e., upper and lower values are shown. Therefore, depending on the exact coupling configurations selected, you can reasonably expect values to fall within the shaded area.



cpcworldwide.com/NS4

NS4 SERIES DIMENSIONS

COUPLING BODIES - Polypropylene/ABS

TERMINATION	TUBING/THREAD SIZE	METRIC EQ.	ABS SHUTOFF	POLYPROPYLENE SHUTOFF	A	B
IN-LINE PIPE THREAD	1/4" NPT		NS4D1000406	NS4D10004	1.05 (26.7)	2.31 (58.7)
	1/4" BSPT			NS4D10004BSPT	1.05 (26.7)	2.29 (58.2)
IN-LINE FERRULESS POLYTUBE FITTING, PTF†	1/4" OD, .17" ID	6.4mm OD, 4.3mm ID	NS4D1300606	NS4D13004	1.05 (26.7)	2.32 (58.9)
	3/8" OD, 1/4" ID	9.5mm OD, 6.4mm ID		NS4D13006	1.05 (26.7)	2.45 (62.2)
IN-LINE HOSE BARB	1/8" ID*	3.2mm ID*	NS4D1700206	NS4D17002	1.05 (26.7)	2.09 (53.1)
	1/4" ID	6.4mm ID	NS4D1700406	NS4D17004	1.05 (26.7)	2.34 (59.4)
	3/8" ID	9.5mm ID	NS4D1700606	NS4D17006	1.05 (26.7)	2.34 (59.4)
IN-LINE HOSE BARB (RS-232 INTERFACE)	1/8" ID	3.2mm ID		iNS4DR1700200	2.15 (54.6)	3.49 (88.6)
	1/4" ID	6.4mm ID		iNS4DR1700400	2.15 (54.6)	3.49 (88.6)
	3/8" ID	9.5mm ID		iNS4DR1700600	2.15 (54.6)	3.49 (88.6)
IN-LINE HOSE BARB (USB INTERFACE)	1/4" ID	6.4mm ID		iNS4DR1700201	2.15 (54.6)	3.4 (86.4)
	3/8" ID	9.5mm ID		iNS4DR1700401	2.15 (54.6)	3.4 (86.4)
	1/2" ID	12.7mm ID		iNS4DR1700601	2.15 (54.6)	3.4 (86.4)

COUPLING INSERTS - Polypropylene/ABS

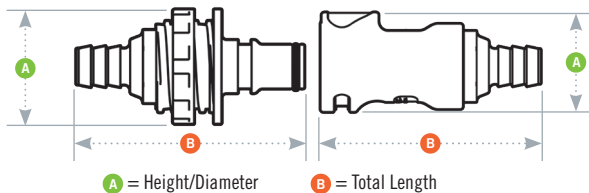
TERMINATION	TUBING/THREAD SIZE	METRIC EQ.	ABS SHUTOFF	POLYPROPYLENE SHUTOFF	A	B
IN-LINE PIPE THREAD	1/4" NPT		NS4D2400406	NS4D24004	0.96 (24.4)	1.95 (49.5)
	1/4" BSPT		NS4D24004BSPT06	NS4D24004BSPT	0.96 (24.4)	1.95 (49.5)
IN-LINE FERRULESS POLYTUBE FITTING, PTF†	1/4" OD, .17" ID	6.4mm OD, 4.3mm ID		NS4D20004	0.96 (24.4)	1.95 (49.5)
	3/8" OD, 1/4" ID	9.5mm OD, 6.4mm ID		NS4D20006	0.96 (24.4)	2.09 (53.1)
IN-LINE HOSE BARB	1/8" ID*	3.2mm ID*		NS4D22002	0.96 (24.4)	1.73 (43.9)
	1/4" ID	6.4mm ID	NS4D2200406	NS4D22004	0.96 (24.4)	1.98 (50.3)
	3/8" ID	9.5mm ID	NS4D2200606	NS4D22006	0.96 (24.4)	1.98 (50.3)
PANEL MOUNT FERRULESS POLYTUBE FITTING, PTF†	1/4" OD, .17" ID	6.4mm OD, 4.3mm ID		NS4D40004	1.17 (29.7)	2.3 (58.4)
	3/8" OD, 1/4" ID	9.5mm OD, 6.4mm ID		NS4D40006	1.17 (29.7)	2.3 (58.4)
PANEL MOUNT HOSE BARB	1/8" ID*	3.2mm ID*	NS4D4200406	NS4D42002	1.17 (29.7)	2.07 (52.6)
	1/4" ID	6.4mm ID		NS4D42004	1.17 (29.7)	2.32 (58.9)
	3/8" ID	9.5mm ID		NS4D42006	1.17 (29.7)	2.32 (58.9)
PANEL MOUNT HOSE BARB ELBOW	1/4" ID	6.4mm ID		NS4D43004	1.19 (30.2)	2.39 (60.7)
	3/8" ID	9.5mm ID		NS4D43006	1.19 (30.2)	2.39 (60.7)
ELBOW HOSE BARB	1/4" ID	6.4mm ID		NS4D23004	0.96 (24.4)	2.04 (51.8)
	3/8" ID	9.5mm ID		NS4D23006	0.96 (24.4)	2.04 (51.8)
IN-LINE HOSE BARB (RS-232 INTERFACE)	1/4" ID	6.4mm ID		iNS4DT2200400		
	3/8" ID	9.5mm ID		iNS4DT2200600		

All measurements are in inches (millimeters) unless otherwise noted. Tubing must meet stated inside and outside diameters. PTF fittings are designed for semi-rigid tubing, i.e., polyethylene, nylon, polyurethane, etc. †NOTE: CPC's Ferruleless PTF (polytube fitting) terminations do not require ferrules to achieve a secure connection and are therefore easier to use and reuse. *NOTE: 1/8" ID (3.2mm) hose barb connection has a support shroud allowing a maximum tube OD of 1/4" (6.4mm).

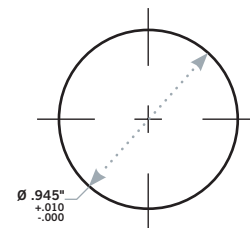
ACCESSORIES

DESCRIPTION	MATERIAL	PART NO.
PANEL MOUNT GASKET REPLACEMENT: FOR SEALING PANEL MOUNT INSERTS LISTED ABOVE	EPDM	1879800

PRODUCT DIMENSIONS



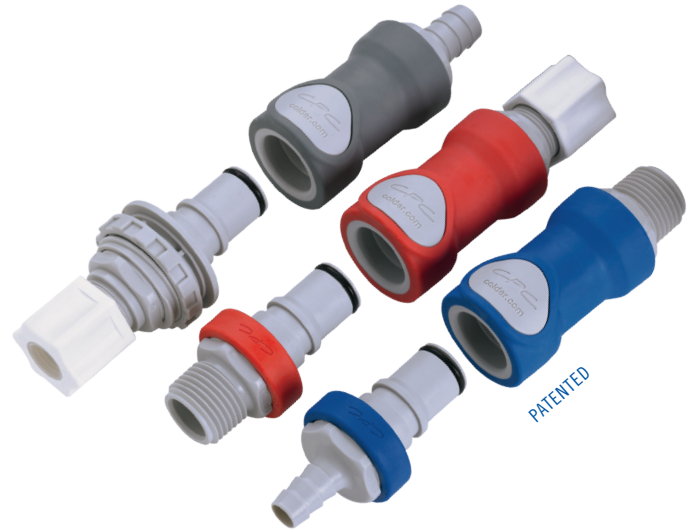
PANEL DIMENSIONS



	PANEL OPENING	PANEL THICKNESS MAX.-MIN.
COUPLING INSERTS	see drawing	0.25 – 0.03

NS6 SERIES CONNECTOR

NS6 Series couplings couplings feature non-spill valves at a great price. Use the NS6 when even a few drops of spillage pose problems regarding safety, media cost or environmental regulations. These innovative couplings are lightweight, chemically resistant and easy to use. The non-spill design virtually eliminates spills and minimizes downtime. Soft touch overmold makes them comfortable in the hand and very attractive.



SPECIFICATIONS

PRESSURE:

Vacuum to 120 psi, 8.3 bar

TEMPERATURE:

32°F to 160°F (0°C to 71°C)

MATERIALS:

Main components and valves:

Glass-filled polypropylene with TPV* soft touch overmold

Thumb latch: Glass-filled polypropylene

Valve spring (wetted): 316 stainless steel

External spring: 316 stainless steel

O-rings: EPDM

COLOR:

Gray with dark gray overmold standard; gray with red or blue overmold available†

TUBING SIZES:

3/8" and 1/2" ID, 9.5mm and 12.7mm ID

LUBRICANTS: Krytox® PFPE (inert)

SPILLAGE:

~0.03 cc per disconnect @ 0 psi,

~0.30 cc/disconnect @ 120 psi

INCLUSION: 0.42 cc per connect

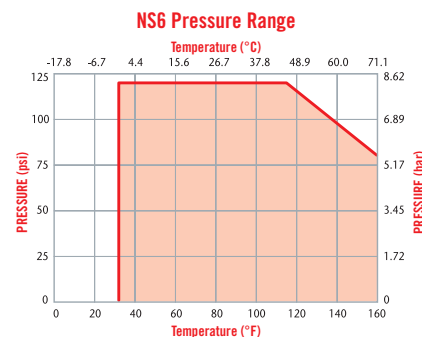
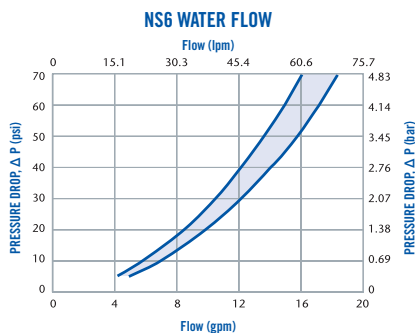
*The overmold material is a TPV (thermoplastic vulcanizate). This TPV is an alloy of polypropylene thermoplastic and fully vulcanized EPDM rubber. The material is typically resistant to water, acids and bases.

†NOTE: Standard product is gray; color options require a set-up charge and minimum quantities. Please contact CPC for details.

FEATURES

- Non-spill design → Disconnect under pressure with no spills
- Color coding → Instant visual differentiation of media lines
- Glass-filled polypropylene → Durable and compatible with many chemicals
- CPC thumb latch → One-hand connection and disconnection

BENEFITS



These graphs are intended to give you a general idea of the performance capabilities of each product line. The shaded area of each graph represents the operating range of the product family, i.e., upper and lower values are shown. Therefore, depending on the exact coupling configurations selected, you can reasonably expect values to fall within the shaded area.



SCAN

cpcworldwide.com/NS6

NS6 SERIES DIMENSIONS

COUPLING BODIES - Polypropylene



TERMINATION	TUBING/THREAD SIZE	METRIC EQ.	SHUTOFF	A	B
IN-LINE PIPE THREAD	1/2" NPT		NS6D10008	1.31 (33.3)	3.01 (76.5)
	1/2" BSPT		NS6D10008BSPT	1.31 (33.3)	3.01 (76.5)
IN-LINE COMPRESSION	1/2" OD	12.7mm OD	NS6D13008	1.31 (33.3)	3.53 (89.7)
IN-LINE HOSE BARB	3/8" ID	9.5mm ID	NS6D17006	1.31 (33.3)	3.16 (80.3)
	1/2" ID	12.7mm ID	NS6D17008	1.31 (33.3)	3.16 (80.3)

COUPLING INSERTS - Polypropylene



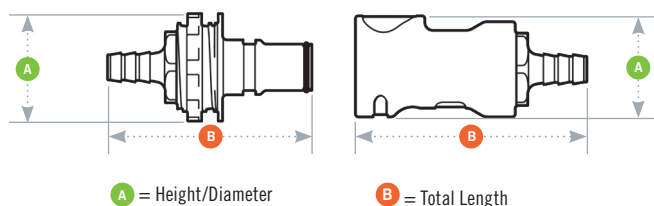
TERMINATION	TUBING/THREAD SIZE	METRIC EQ.	SHUTOFF	A	B
IN-LINE PIPE THREAD	1/2" NPT		NS6D24008	1.31 (33.3)	2.44 (62.0)
	1/2" BSPT		NS6D24008BSPT	1.31 (33.3)	2.44 (62.0)
IN-LINE COMPRESSION	1/2" OD	12.7mm OD	NS6D20008	1.31 (33.3)	3.01 (76.5)
IN-LINE HOSE BARB	3/8" ID	9.5mm ID	NS6D22006	1.31 (33.3)	2.59 (65.8)
	1/2" ID	12.7mm ID	NS6D22008	1.31 (33.3)	2.59 (65.8)
PANEL MOUNT COMPRESSION	1/2" OD	12.7mm OD	NS6D40008	1.50 (38.1)	3.32 (84.3)
PANEL MOUNT HOSE BARB	3/8" ID	9.5mm ID	NS6D42006	1.50 (38.1)	2.85 (72.4)
	1/2" ID	12.7mm ID	NS6D42008	1.50 (38.1)	2.85 (72.4)

All measurements are in inches (millimeters) unless otherwise noted. Tubing must meet stated inside and outside diameters. Couplings are pictured with valves unless otherwise noted.

ACCESSORIES

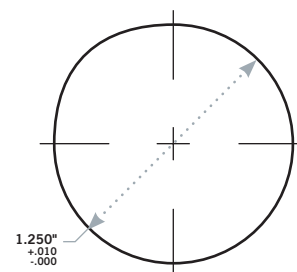
DESCRIPTION	MATERIAL	PART NO.
PANEL MOUNT GASKET REPLACEMENT: FOR SEALING PANEL MOUNT BODIES LISTED ABOVE	EPDM	1884300
	FKM	1889600

PRODUCT DIMENSIONS



PANEL DIMENSIONS

	PANEL OPENING	PANEL THICKNESS MAX.-MIN.
COUPLING INSERTS	see drawing	0.25 - 0.03



PLC[®] SERIES CONNECTOR

The 1/4" flow PLC[®] Series is proven worldwide in thousands of applications and offers the widest selection of sizes and configurations. PLC couplings are injection molded from acetal thermoplastic and are resistant to most mild chemical solutions. One-hand connection/disconnection, plus integral terminations make the PLC Series the choice for ease of use and manufacture.



SPECIFICATIONS

PRESSURE:

Vacuum to 120 psi, 8.3 bar

TEMPERATURE:

-40°F to 180°F (-40°C to 82°C)

MATERIALS:

Main components and valves: Acetal

Thumb latch: Stainless steel

Valve spring: 316 stainless steel

External springs and pin: Stainless steel

O-rings: Buna-N

COLOR: Natural white, others available

TUBING SIZES:

1/4" to 3/8" ID, 6.4mm to 9.5mm ID

JG[®] Tubing Specifications:

Tube tolerances: 1/4" OD, +0.001/-0.004 | 3/8" OD, +0.001/-0.004

Tube Types: Plastic tube: Polyethylene, nylon, polyurethane. For soft or thin wall tubing with JG[®] terminations, tube supports are recommended.

Metal tube: Brass, copper and mild steel

FEATURES

CPC thumb latch

Integral terminations

Clicks when connected

Compatible

BENEFITS

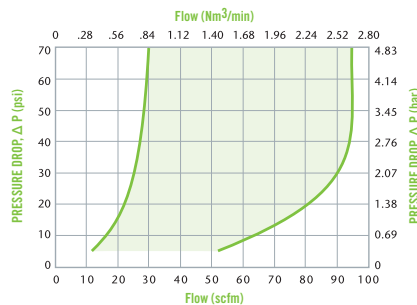
One-hand connection and disconnection

Fewer leak points, shorter assemblies, faster installations

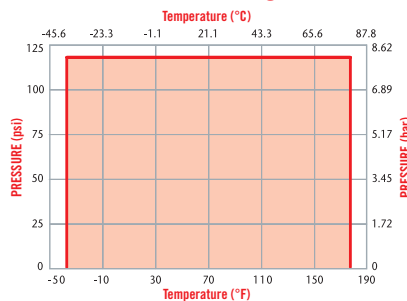
Assurance of a reliable connection

Mates with LC and PLC12 Series couplings

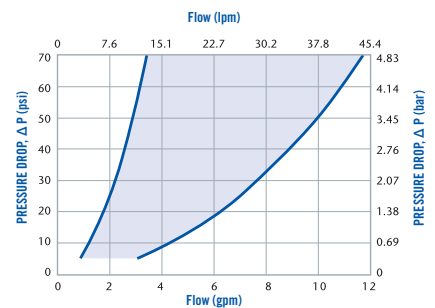
PLC AIR FLOW • 100 psig inlet pressure



PLC Pressure Range



PLC WATER FLOW



These graphs are intended to give you a general idea of the performance capabilities of each product line. The shaded area of each graph represents the operating range of the product family, i.e., upper and lower values are shown. Therefore, depending on the exact coupling configurations selected, you can reasonably expect values to fall within the shaded area.



cpcworldwide.com/PLC

Metal or plastic quick disconnects?

Download the tech guide to learn about performance, weight, and compatibility considerations.



cpcworldwide.com/LC-HP-Plastic-Guide

LIQUID FLOW RATE INFORMATION FOR COUPLINGS

The chart below shows the flow rate for CPC couplings. Each coupling was tested with water at 70°F (21°C). To determine flow rates for specific coupling configurations use the formula to the right.

$$Q = C_v \sqrt{\frac{\Delta P}{S}}$$

Q = Flow rate in gallons per minute
 C_v = Average coefficient across various flow rates (see chart)
 ΔP = Pressure drop across coupling (psi)
 S = Specific gravity of liquid

C_v VALUES

INSERTS

BODIES

	PLC 20004	PLCD 20004	PLC 20006	PLCD 20006	PLC 22004	PLCD 22004	PLC 22006	PLCD 22006	PLC 24004	PLCD 24004	PLC 24006	PLCD 24006	PLC 26004
PLC10004	0.40	0.36	1.05	0.58	0.83	0.56	1.40	0.82	1.40	0.75	1.40	0.77	0.83
PLCD10004	0.36	0.31	0.73	0.48	0.66	0.41	0.82	0.50	0.80	0.45	0.77	0.45	0.81
PLC10006	0.40	0.36	1.05	0.60	0.83	0.56	1.40	0.81	1.40	0.76	1.40	0.76	0.83
PLCD10006	0.37	0.31	0.81	0.47	0.70	0.43	1.02	0.51	0.98	0.46	0.99	0.48	0.98
PLC12006	0.38	0.36	0.84	0.63	0.74	0.56	1.14	0.75	1.14	0.70	1.14	0.72	0.74
PLCD12006	0.38	0.33	0.78	0.49	0.68	0.44	0.84	0.49	0.81	0.43	0.82	0.44	0.81
PLC16004	0.38	0.37	0.87	0.54	0.95	0.51	1.00	0.70	0.95	0.64	1.00	0.66	0.95
PLCD16004	0.37	0.31	0.61	0.44	0.57	0.41	0.78	0.44	0.78	0.43	0.75	0.46	0.78
PLC16006	0.38	0.37	1.00	0.57	0.95	0.53	1.40	0.80	1.40	0.71	1.40	0.73	1.40
PLCD16006	0.38	0.32	0.71	0.49	0.63	0.42	0.89	0.51	0.96	0.45	0.92	0.49	0.97

PLC® SERIES DIMENSIONS

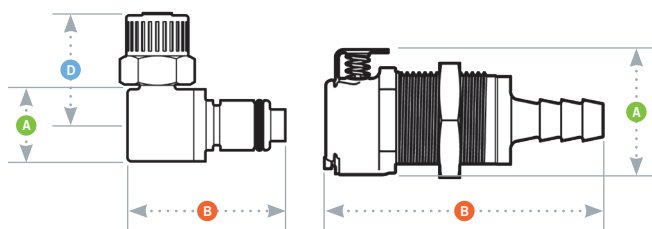
COUPLING BODIES - Acetal

TERMINATION	TUBING/THREAD SIZE	METRIC EQ	STRAIGHT THRU	SHUTOFF	A	B
	IN-LINE PIPE THREAD					
	1/4" NPT		PLC10004	PLCD10004	0.9 (22.9)	1.17 (29.7)
	1/4" BSPT		PLC10004BSPT	PLCD10004BSPT	0.9 (22.9)	1.15 (29.2)
	3/8" NPT		PLC10006	PLCD10006	0.9 (22.9)	1.15 (29.2)
	PANEL MOUNT FERRULELESS POLYTUBE FITTING, PTF†					
	1/4" OD, 0.17" ID	6.4mm OD, 4.3mm ID	PLC12004	PLCD12004	0.88 (22.4)	1.87 (47.5)
	—	8.0mm OD, 6.0mm ID	PLC120M8	PLCD120M8	0.88 (22.4)	1.95 (49.5)
	3/8" OD, 0.25" ID	9.5mm OD, 6.4mm ID	PLC12006	PLCD12006	0.88 (22.4)	1.95 (49.5)
	PANEL MOUNT HOSE BARB					
	1/4" ID	6.4mm ID	PLC16004	PLCD16004	0.88 (22.4)	1.95 (49.5)
	5/16" ID	7.9mm ID	PLC16005	PLCD16005	0.88 (22.4)	1.95 (49.5)
	3/8" ID	9.5mm ID	PLC16006	PLCD16006	0.88 (22.4)	1.95 (49.5)
	PANEL MOUNT JG® PUSH-TO-CONNECT					
	1/4" OD	6.4mm OD	PLC11004	PLCD11004	0.88 (22.4)	1.95 (49.5)
	IN-LINE FERRULELESS POLYTUBE FITTING, PTF†					
	1/4" OD, 0.17" ID	6.4mm OD, 4.3mm ID	PLC13004	PLCD13004	0.94 (23.9)	1.82 (46.2)
	—	8.0mm OD, 6.0mm ID	PLC130M8	PLCD130M8	0.94 (23.9)	1.95 (49.5)
	3/8" OD, 0.25" ID	9.5mm OD, 6.4mm ID	PLC13006	PLCD13006	0.94 (23.9)	1.95 (49.5)
	IN-LINE HOSE BARB					
	1/4" ID	6.4mm ID	PLC17004	PLCD17004	0.94 (23.9)	1.80/1.95 (45.7/49.5)
	5/16" ID	7.9mm ID	PLC17005	PLCD17005	0.94 (23.9)	1.95 (49.5)
	3/8" ID	9.5mm ID	PLC17006	PLCD17006	0.94 (23.9)	1.80/1.95 (45.7/49.5)
	IN-LINE JG® PUSH-TO-CONNECT					
	1/4" OD	6.4mm OD	PLC14004	PLCD14004	0.94 (23.9)	1.95 (49.5)
	3/8" OD	9.5mm OD	PLC14006	PLCD14006	0.94 (23.9)	2.09 (53.1)
(See page 167 for JG accessories)						

All measurements are in inches (millimeters) unless otherwise noted. Tubing must meet stated inside and outside diameters. Couplings are pictured with valves unless otherwise noted.

†NOTE: CPC's Ferruleless Polytube Fitting terminations do not require ferrules to achieve a secure connection, which makes them easier to use and reuse. PTF fittings are designed for semi-rigid tubing, i.e., polyethylene, nylon, polyurethane, etc. NOTE: JG is a registered trademark of John Guest USA, Inc.

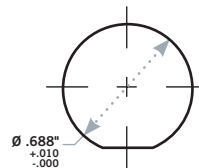
PRODUCT DIMENSIONS



- A = Height/Diameter
- B = Total Length
- D = Elbow Radial Length

PANEL DIMENSIONS

	PANEL OPENING	PANEL THICKNESS MAX.-MIN.	PANEL NUT HEX	PANEL NUT THREAD
COUPLING BODIES	see drawing	0.50 – 0.05	13/16	11/16-24UNEF
COUPLING INSERTS	see drawing	0.30 – 0.05	13/16	11/16-24UNEF



COUPLING INSERTS - Acetal

	TERMINATION	TUBING/THREAD SIZE	METRIC EQ	STRAIGHT THRU	SHUTOFF	A	B	D
	IN-LINE PIPE THREAD	1/4" NPT		PLC24004	PLCD24004	0.72 (18.3)	1.25/1.66 (31.8/42.2)	
		1/4" BSPT		PLC24004BSPT	PLCD24004BSPT	0.72 (18.3)	1.53/1.66 (38.9/42.2)	
		3/8" NPT		PLC24006	PLCD24006	0.87 (22.1)	1.25/1.63 (31.8/41.4)	
		3/8" BSPT		PLC24006BSPT	PLCD24006BSPT	0.87 (22.1)	1.51/1.63 (38.4/41.4)	
	PANEL MOUNT FERRULELESS POLYTUBE FITTING, PTF†	1/4" OD, 0.17" ID	6.4mm OD, 4.3mm ID	PLC40004	PLCD40004	0.94 (23.9)	1.78/1.91 (45.2/48.5)	
		—	8.0mm OD, 6.0mm ID	PLC400M8	PLCD400M8	0.94 (23.9)	1.91/2.03 (48.5/51.6)	
		3/8" OD, 0.25" ID	9.5mm OD, 6.4mm ID	PLC40006	PLCD40006	0.94 (23.9)	1.91/2.05 (48.5/52.1)	
		—	10.0mm OD, 8.0mm ID	PLC400M10	PLCD400M10	0.94 (23.9)	1.91/2.05 (48.5/52.1)	
	PANEL MOUNT HOSE BARB	1/4" ID	6.4mm ID	PLC42004	PLCD42004	0.94 (23.9)	1.91/2.05 (48.5/52.1)	
		5/16" ID	7.9mm ID	PLC42005	PLCD42005	0.94 (23.9)	1.91/2.05 (48.5/52.1)	
		3/8" ID	9.5mm ID	PLC42006	PLCD42006	0.94 (23.9)	1.91/2.05 (48.5/52.1)	
	PANEL MOUNT JG® PUSH-TO- CONNECT	1/4" OD	6.4mm OD	PLC41004	PLCD41004	0.94 (23.9)	1.91/2.05 (48.5/52.1)	
	IN-LINE FERRULELESS POLYTUBE FITTING, PTF†	1/4" OD, 0.17" ID	6.4mm OD, 4.3mm ID	PLC20004	PLCD20004	0.72 (18.3)	1.25/1.88 (31.8/73.2)	
		—	8.0mm OD, 6.0mm ID	PLC200M8	PLCD200M8	0.72 (18.3)	1.38/1.82 (35.1/46.2)	
		3/8" OD, 0.25" ID	9.5mm OD, 6.4mm ID	PLC20006	PLCD20006	0.72 (18.3)	1.38/1.82 (35.1/46.2)	
		—	10.0mm OD, 8.0mm ID	PLC200M10	PLCD200M10	0.72 (18.3)	1.38/1.82 (35.1/46.2)	
	IN-LINE HOSE BARB	1/4" ID	6.4mm ID	PLC22004	PLCD22004	0.62 (15.7)	1.35/1.99 (34.3/50.6)	
		5/16" ID	7.9mm ID	PLC22005	PLCD22005	0.62 (15.7)	1.35/1.99 (34.3/50.6)	
		3/8" ID	9.5mm ID	PLC22006	PLCD22006	0.62 (15.7)	1.36/1.81 (34.5/46.0)	
	IN-LINE JG® PUSH-TO- CONNECT	1/4" OD	6.4mm OD	PLC29004	PLCD29004	0.62 (15.7)	1.35/1.95 (34.3/49.5)	
		3/8" OD	9.5mm OD	PLC29006	PLCD29006	0.78 (19.8)	1.51/2.11 (38.4/53.6)	
	ELBOW FERRULELESS POLYTUBE FITTING, PTF†	3/8" OD, 0.25" ID	9.5mm OD, 6.4mm ID	PLC21006	PLCD21006	.61/.62 (15.45/15.8)	1.22/1.35 (31.0/34.3)	0.85/0.96 (21.6/24.4)
	ELBOW HOSE BARB	1/4" ID	6.4mm ID	PLC23004	PLCD23004	.67/.63 (17.0/16.0)	1.10/1.28 (27.9/32.5)	0.85/0.96 (21.6/24.4)
		3/8" ID	9.5mm ID	PLC23006	PLCD23006	.67/.63 (17.0/16.0)	1.25/1.28 (31.8/32.5)	0.90/0.96 (22.9/24.4)

All measurements are in inches (millimeters) unless otherwise noted. Tubing must meet stated inside and outside diameters. Couplings are pictured with valves unless otherwise noted.

†NOTE: CPC's Ferruleless Polytube Fitting terminations do not require ferrules to achieve a secure connection, which makes them easier to use and reuse. PTF fittings are designed for semi-rigid tubing, i.e., polyethylene, nylon, polyurethane, etc. NOTE: JG is a registered trademark of John Guest USA, Inc.

LC SERIES CONNECTOR

CPC's LC Series chrome-plated brass couplings are built tough and made to last in the most demanding applications. Ideal for use with higher temperature or pressure, the LC Series features a one-hand operation for swift and easy connects and disconnects.



SPECIFICATIONS

PRESSURE:

Vacuum to 250 psi, 17.3 bar

TEMPERATURE:

-40°F to 180°F (-40°C to 82°C)
(High temperature versions available with ratings to 400°F)

MATERIALS:

Main components: Chrome-plated brass

Thumb latch: Stainless steel

Valves: Acetal

Valve springs: 316 stainless steel

External springs and pin: Stainless steel

O-rings: Buna-N

FINISH:

Chrome

TUBING SIZES:

1/4" to 3/8" ID, 6.4mm to 9.5mm ID

WARNING: Pressure, temperature, chemicals, and operating environment can affect the performance of couplings. It is the customer's responsibility to test the suitability of CPC products in their own application conditions.



cpcworldwide.com/LC

FEATURES

Brass material

Chrome plating

High temperature capability

CPC thumb latch

Compatible

BENEFITS

Durable construction withstands higher pressure and temperature

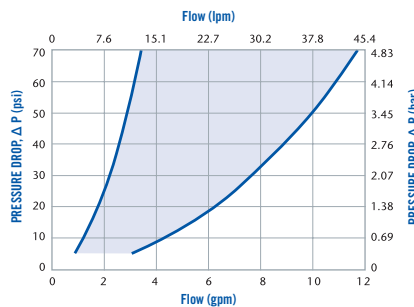
Attractive appearance

Versions rated to 400°F (204°C)

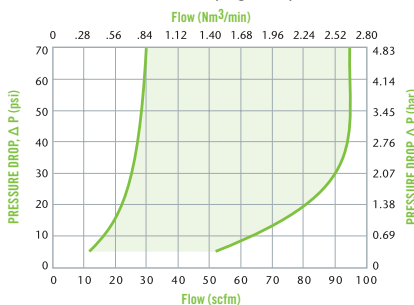
One-hand connection and disconnection

LC mates with PLC Series couplings

LC WATER FLOW



LC AIR FLOW • 100 psig inlet pressure



These graphs are intended to give you a general idea of the performance capabilities of each product line. The shaded area of each graph represents the operating range of the product family, i.e., upper and lower values are shown. Therefore, depending on the exact coupling configurations selected, you can reasonably expect values to fall within the shaded area.

DID YOU KNOW

O-ring selection is a key decision in determining which connector will perform best in your specific application. Understanding the material characteristics and how they can be affected by both the media being transferred and the environment in which the connector is being used is important.

NOTE

High temperature versions available with ratings to 400 F. Call customer service for more information.



REQUEST A QUOTE

For complex liquid cooling systems needing multiple quick disconnects of varying sizes or for large orders, consider requesting a quote. CPC will work with you to understand your volume and schedule and associated delivery needs.



FIND A DISTRIBUTOR

CPC has distributors all around the world. Find one in your region or country on the website or call CPC's Customer Service at 1-800-444-2474 or 651-645-0091. You can also send an email to info@cpcworldwide.com.

LIQUID FLOW RATE INFORMATION FOR COUPLINGS

The chart below shows the flow rate for CPC couplings. Each coupling was tested with water at 70°F (21°C). To determine flow rates for specific coupling configurations use the formula to the right.

$$Q = C_v \sqrt{\frac{\Delta P}{S}}$$

Q = Flow rate in gallons per minute
C_v = Average coefficient across various flow rates (see chart)
ΔP = Pressure drop across coupling (psi)
S = Specific gravity of liquid

C_v VALUES

INSERTS

	LC 20004	LCD 20004	LC 20006	LCD 20006	LC 22004	LCD 22004	LC 22006	LCD 22006	LC 24004	LCD 24004	LC 24006	LCD 24006	LC 26004
LC10004	0.40	0.36	1.05	0.58	0.83	0.56	1.40	0.82	1.40	0.75	1.40	0.77	0.83
LCD10004	0.36	0.31	0.73	0.48	0.66	0.41	0.82	0.50	0.80	0.45	0.77	0.45	0.81
LC10006	0.40	0.36	1.05	0.60	0.83	0.56	1.40	0.81	1.40	0.76	1.40	0.76	0.83
LCD10006	0.37	0.31	0.81	0.47	0.70	0.43	1.02	0.51	0.98	0.46	0.99	0.48	0.98
LC12006	0.38	0.36	0.84	0.63	0.74	0.56	1.14	0.75	1.14	0.70	1.14	0.72	0.74
LCD12006	0.38	0.33	0.78	0.49	0.68	0.44	0.84	0.49	0.81	0.43	0.82	0.44	0.81
LC16004	0.38	0.37	0.87	0.54	0.95	0.51	1.00	0.70	0.95	0.64	1.00	0.66	0.95
LCD16004	0.37	0.31	0.61	0.44	0.57	0.41	0.78	0.44	0.78	0.43	0.75	0.46	0.78
LC16006	0.38	0.37	1.00	0.57	0.95	0.53	1.40	0.80	1.40	0.71	1.40	0.73	1.40
LCD16006	0.38	0.32	0.71	0.49	0.63	0.42	0.89	0.51	0.96	0.45	0.92	0.49	0.97

LC SERIES DIMENSIONS

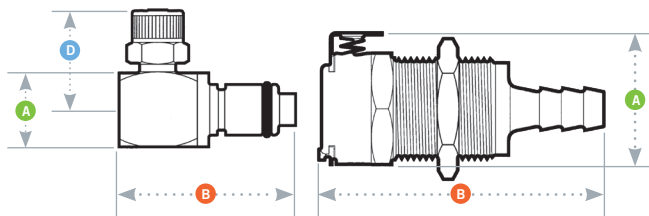
COUPLING BODIES - Metallic-plated brass

	TERMINATION	TUBING/THREAD SIZE	METRIC EQ	STRAIGHT THRU	SHUTOFF	A	B
	IN-LINE PIPE THREAD	1/4" NPT		LC10004	LCD10004	0.88 (22.4)	1.15 (29.2)
		1/4" BSPT		LC10004BSPT	LCD10004BSPT	0.88 (22.4)	1.15 (29.2)
		3/8" NPT		LC10006	LCD10006	0.88 (22.4)	1.15 (29.2)
		3/8" BSPT		LC10006BSPT	LCD10006BSPT	0.88 (22.4)	1.15 (29.2)
	PANEL MOUNT FERRULELESS POLYTUBE FITTING, PTF†	1/4" OD, 0.17" ID	6.4mm OD, 4.3mm ID	LC12004	LCD12004	0.88 (22.4)	1.87 (47.5)
		3/8" OD, 1/4" ID	9.5mm OD, 6.4mm ID	LC12006	LCD12006	0.88 (22.4)	2 (50.8)
	PANEL MOUNT HOSE BARB	1/4" ID	6.4mm ID	LC16004	LCD16004	0.88 (22.4)	2 (50.8)
		5/16" ID	7.9mm ID	LC16005	LCD16005	0.88 (22.4)	2 (50.8)
		3/8" ID	9.5mm ID	LC16006	LCD16006	0.88 (22.4)	2 (50.8)
	PANEL MOUNT MALE THREAD	1/4" NPT		LC15004	LCD15004	0.88 (22.4)	1.5 (38.1)
	IN-LINE FERRULELESS POLYTUBE FITTING, PTF†	1/4" OD, 0.17" ID	6.4mm OD, 4.3mm ID	LC13004	LCD13004	0.88 (22.4)	1.87 (47.5)
		3/8" OD, 1/4" ID	9.5mm OD, 6.4mm ID	LC13006	LCD13006	0.88 (22.4)	2 (50.8)
	IN-LINE HOSE BARB	1/4" ID	6.4mm ID	LC17004	LCD17004	0.88 (22.4)	2 (50.8)
		5/16" ID	7.9mm ID	LC17005	LCD17005	0.88 (22.4)	2 (50.8)
		3/8" ID	9.5mm ID	LC17006	LCD17006		2 (50.8)

All measurements are in inches (millimeters) unless otherwise noted. Tubing must meet stated inside and outside diameters.

†NOTE: CPC's Ferruleless PTF (polytube fitting) terminations do not require ferrules to achieve a secure connection and are therefore easier to use and reuse. PTF fittings are designed for semi-rigid tubing, i.e., polyethylene, nylon, polyurethane, etc. NOTE: Elbow configurations are available. Contact CPC for more information.

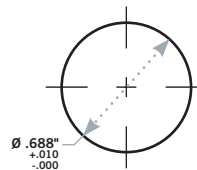
PRODUCT DIMENSIONS



- A = Height/Diameter
- B = Total Length
- D = Elbow Radial Length

PANEL DIMENSIONS

	PANEL OPENING	PANEL THICKNESS MAX.-MIN.	PANEL NUT HEX	PANEL NUT THREAD
COUPLING BODIES	see drawing	0.50 - 0.05	13/16	11/16-24UNEF
COUPLING INSERTS	see drawing	0.090 - 0.300	13/16	11/16-24UNEF



COUPLING INSERTS - Metallic-plated brass

	TERMINATION	TUBING/THREAD SIZE	METRIC EQ	STRAIGHT THRU	SHUTOFF	A	B	D
	IN-LINE PIPE THREAD	1/4" NPT		LC24004	LCD24004	0.72 (18.3)	1.25/1.68 (31.8/42.7)	
		1/4" BSPT		LC24004BSPT	LCD24004BSPT	0.72 (18.3)	1.25/1.68 (31.8/42.7)	
		3/8" NPT		LC24006	LCD24006	0.87 (22.1)	1.25/1.55 (31.8/39.4)	
		3/8" BSPT		LC24006BSPT	LCD24006BSPT	0.87 (22.1)	1.25/1.55 (31.8/39.4)	
	IN-LINE PIPE THREAD (FEMALE)	1/4" NPT Female		LC26004	LCD26004	0.72 (18.3)	1.25/1.90 (31.8/48.3)	
		1/4" BSPP Female		LC26004BSPP	LCD26004BSPP	0.72 (18.3)	1.25/1.75 (31.8/44.5)	
	PANEL MOUNT FERRULELESS POLYTUBE FITTING, PTF†	1/4" OD, 0.17" ID	6.4mm OD, 4.3mm ID	LC40004	LCD40004	0.94 (23.9)	1.83/1.98 (46.5/50.3)	
		3/8" OD, 1/4" ID	9.5mm OD, 6.4mm ID	LC40006	LCD40006	0.94 (23.9)	1.96/2.11 (47.8/53.6)	
	PANEL MOUNT HOSE BARB	1/4" ID	6.4mm ID	LC42004	LCD42004	0.94 (23.9)	1.96/2.11 (47.8/53.6)	
		5/16" ID	7.9mm ID	LC42005	LCD42005	0.94 (23.9)	1.96/2.11 (47.8/53.6)	
		3/8" ID	9.5mm ID	LC42006	LCD42006	0.94 (23.9)	1.96/2.11 (47.8/53.6)	
	IN-LINE FERRULELESS POLYTUBE FITTING, PTF†	1/4" OD, 0.17" ID	6.4mm OD, 4.3mm ID	LC20004	LCD20004	0.72 (18.3)	1.25/1.87 (31.8/47.5)	
		3/8" OD, 1/4" ID	9.5mm OD, 6.4mm ID	LC20006	LCD20006	0.72 (18.3)	1.38/1.83 (1.4/35.1)	
	IN-LINE HOSE BARB	1/4" ID	6.4mm ID	LC22004	LCD22004	0.63 (16.0)	1.35/2.00 (34.3/50.8)	
		5/16" ID	7.9mm ID	LC22005	LCD22005	0.63 (16.0)	1.35/1.85 (34.3/47.0)	
		3/8" ID	9.5mm ID	LC22006	LCD22006	0.63 (16.0)	1.35/1.83 (34.3/35.1)	
	ELBOW FERRULELESS POLYTUBE FITTING, PTF†	1/4" OD, 0.17" ID	6.4mm OD, 4.3mm ID	LC21004	LCD21004	0.63 (16.0)	1.28/1.43 (32.5/36.3)	0.83 (21.1)
		3/8" OD, 1/4" ID	9.5mm OD, 6.4mm ID	LC21006	LCD21006	0.63 (16.0)	1.28/1.43 (32.5/36.3)	0.96 (24.4)
	ELBOW HOSE BARB	1/4" ID	6.4mm ID	LC23004	LCD23004	0.63/0.62	1.28/1.43 (32.5/36.3)	1.28 (32.5)
		3/8" ID	9.5mm ID	LC23006	LCD23006	0.63/0.62	1.28/1.43 (32.5/36.3)	1.28 (32.5)

All measurements are in inches (millimeters) unless otherwise noted. Tubing must meet stated inside and outside diameters. Couplings are pictured with valves unless otherwise noted.

†Note: CPC's Ferruleless PTF (polytube fitting) terminations do not require ferrules to achieve a secure connection and are therefore easier to use and reuse. PTF fittings are designed for semi-rigid tubing, i.e., polyethylene, nylon, polyurethane, etc. NOTE: Elbow configurations are available. Contact CPC for more information.

DPC SERIES CONNECTOR

The 1/4" flow DPC Series couplings feature a dual port connection in a contoured design that delivers ease-of-use and excellent flow in a compact size. Made from acetal thermoplastic, the DPC Series includes valved and non-valved couplings with a single plastic thumb latch. One-hand operation makes the DPC Series the choice for simple, simultaneous connections and disconnections where two fluid lines are required.



SPECIFICATIONS

PRESSURE:

Vacuum to 120 psi, 8.3 bar

TEMPERATURE:

32°F to 180°F (0°C to 82°C)

MATERIALS:

Main components: Acetal

Thumb latch: Acetal

Valve spring: 316 stainless steel

External springs: Stainless steel

O-rings: Buna-N

COLOR:

White with blue latch

TUBING SIZES:

1/4" to 3/8" ID, 6.4mm to 9.5mm ID

WARNING: Pressure, temperature, chemicals, and operating environment can affect the performance of couplings. It is the customer's responsibility to test the suitability of CPC's products in their own application conditions.



cpcworldwide.com/DPC

FEATURES

Single thumb latch

Insert keyed to body

Compact, modular design

Integral terminations

BENEFITS

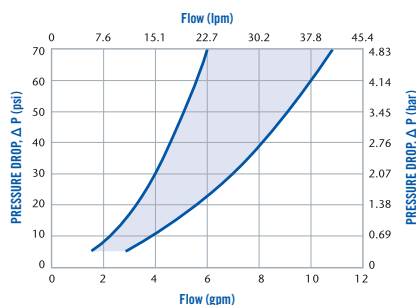
Intuitive one step, two-line connection and disconnection

Ensures correct directional flow

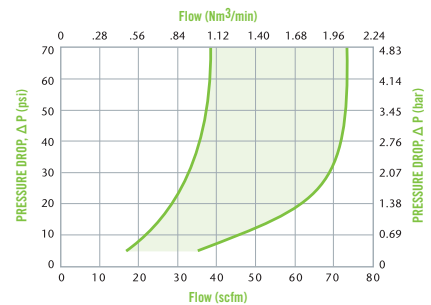
Attractive, high-quality appearance and configuration flexibility

Fewer moving parts, shorter assemblies, faster installations

DPC WATER FLOW



DPC AIR FLOW • 100 psig inlet pressure



These graphs are intended to give you a general idea of the performance capabilities of each product line. The shaded area of each graph represents the operating range of the product family, i.e., upper and lower values are shown. Therefore, depending on the exact coupling configurations selected, you can reasonably expect values to fall within the shaded area.

DPC SERIES DIMENSIONS

COUPLING BODIES - Acetal



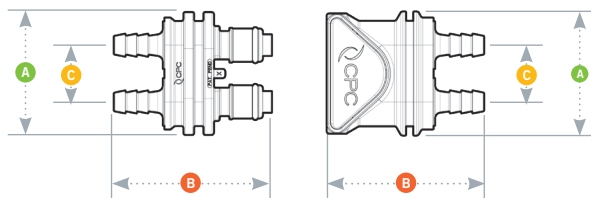
TERMINATION	TUBING/ THREAD SIZE	METRIC EQ.	STRAIGHT THRU	SHUTOFF	A	B	C
IN-LINE HOSE BARB	1/4" ID	6.4mm ID	DPC17004	DPCD17004	1.62 (41.1)	2.09 (52.9)	0.75 (19.1)
	3/8" ID	9.5mm ID	DPC17006	DPCD17006	1.62 (41.1)	2.09 (52.9)	0.75 (19.1)

COUPLING INSERTS - Acetal



TERMINATION	TUBING/ THREAD SIZE	METRIC EQ.	STRAIGHT THRU	SHUTOFF	A	B	C
IN-LINE HOSE BARB	1/4" ID	6.4mm ID	DPC22004	DPCD22004	1.62 (41.1)	1.97/2.11 (50.0/53.6)	0.75 (19.1)
	3/8" ID	9.5mm ID	DPC22006	DPCD22006	1.62 (41.1)	1.97/2.11 (50.0/53.6)	0.75 (19.1)

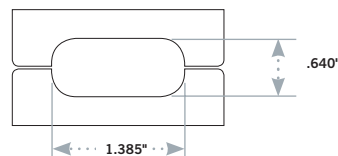
PRODUCT DIMENSIONS



- A = Height/Diameter
- B = Total Length
- C = Center-to-center distance

PANEL DIMENSIONS

	PANEL OPENING	PANEL THICKNESS MAX. – MIN.
COUPLING BODIES	contact CPC	
COUPLING INSERTS	see drawing	0.135 – 0.132





Ask An Engineer

Contact CPC with your quick disconnect and liquid cooling application-related questions. CPC's dedicated engineers are happy to help.



[cpcworldwide.com/
Ask-Our-Engineers](https://cpcworldwide.com/Ask-Our-Engineers)

CPC QUICK DISCONNECT COUPLING BASICS

A CPC quick disconnect coupling (QD) consists of two parts, a socket and a plug, that when connected create a fluid flow path. Each of CPC's Everis QD couplings has a valve architecture with multi-lobed seals to provide redundant protection against leakage over extended periods of time. CPC's liquid cooling QD valves are designed to ensure the valve closes quickly and reliably when the coupling is disconnected after long periods in a connected state. Upon disconnection, the integrated non-spill shutoff valves automatically stop flow, preventing pressure loss. With non-spill functionality, spillage at disconnection consists of a wetted surface — which is not enough fluid to create or enable a drip. Once the QDs are connected, the flow of coolant fluid begins.

ALIGNMENT

In the case of blind mate liquid cooling connectors, how does the system hardware ensure alignment of the QDs? For example, will they be panel mounted with an external locking mechanism? The design of Everis® blind mate quick disconnects is such that some minor misalignment is allowable and the QD will perform accordingly.

COOLANT

What is your selected fluid? The thermal properties, viscosity and corrosiveness of the fluid going through the liquid cooling system all need to be considered. Chemical compatibility of the coolant with all system and coupling subcomponent materials is particularly important.

COMPATIBILITY

What other materials will be used in the system? It is important to be aware of potential issues derived from galvanic corrosion due to fluid and material incompatibility. Be aware that system corrosion and component erosion resulting from incompatibilities can result in particles in the system which can affect both subcomponent reliability and system performance. Use of polymer materials can help to prevent these issues.

CYCLES

How many make/break cycles will the quick disconnect need to accommodate? Some applications are such that, upon connection, the QD is rarely disconnected. Other installations may experience many disconnections. Understanding anticipated cycling can influence recommendations for seals and your specification of coolant.

DIMENSION

How much room is there for the QD? Are there access needs for installation or operation surrounding the QD? Based upon cooling load and space constraints, does the application require a high flow-to-size ratio for its quick disconnects? Specifying engineers should refer to Cv or Kv graphs for accurate flow characteristics. Orifice diameter and physical size of the QD are not good indicators of performance.

FLAMMABILITY

Does the application need to pass a particular certification? Do system components need to be composed of materials that have a specific UL94-rating?

FLOWRATE

What is your required flow and desired target range for allowable pressure drop for each liquid cooling system subcomponent? Understand configuration and multiple component impacts to flow and specify pumps accordingly. Be sure to allow for the effect of shutoff valves and tubing connections in your calculations.

FORM FACTOR

What type of connector style is desired? Will you need single-handed operation as is offered with latch-style quick disconnects or will the connectors be panel mounted or affixed to a manifold?

PRESSURE	What is the maximum pressure the liquid cooling system will experience and subsequently, the pressure that your connections will need to withstand? What is the standard operating pressure? Or are you designing a low-pressure system? Engineers can refer to Cv or Kv for accurate flow information. System designers will also be concerned with pressure drop associated with each system component.
SHUTOFF OPTIONS	Do you need automatic or integral shutoff valves in your quick disconnects? Most connectors recommended for liquid cooling applications are non-spill. Other shutoff options are single or double shutoff.
SPECIAL REQUIREMENTS	What unique scenarios must the product address or possess? Sterilization, NSF listed, USP Class VI approved materials, special packaging, color coding, assemblies and keying are some examples. Custom development is available to support these needs.
SPILLAGE	What amount of fluid loss is acceptable upon each disconnection of the quick disconnect? Is the coolant a regulated or hazardous material? Depending upon flow size, a typical non-spill QD will emit a small bit of fluid, which often equates to a wetted surface on the face of the connector.
TEMPERATURE	Know your minimum and maximum temperature range. How much will temperature fluctuate, to what degree, and how often? Also consider that operating temperature will vary from shipping/storage temperature of the liquid cooling system subassemblies.
TERMINATION	How are you connecting the coupling to the rest of the system? Common termination options include locking hose barb, hose barb, and threaded terminations. Threaded terminations are available in all applicable international standards including NPT, BSPP (or G-thread), and SAE. Alternative terminations are also available upon request.
TESTING	What tests do your component manufacturers perform? What independent, subassembly or system-level tests do liquid cooling system designers need to conduct? Prior to locking a specification, ask what tests the liquid cooling connectors have been through and request copies of testing validation reports.
TOLERANCE	What mounting method and locking systems are planned for use with blind mate quick disconnects? Understand what tolerances each quick disconnect offers and how they affect flow and system performance.
TORQUE	What tools and how much force will be applied to affix the QDs to the manifold of the liquid cooling system? Will it be measurable and consistent? Many quick release couplings feature a maximum torque measurement to preserve the integrity and reliability of the assembly of the QD.
TRANSPORTATION	Will the system be delivered over land or via air transport? Self-contained or pressurized liquid cooling cargo by air can be affected by temperature and altitude. Both methods of transportation are susceptible to fluctuating environmental conditions.
TUBING	What type, material, and size of tubing are you using? Besides inside and outside diameter of the piping or tubing used, system designers need to specify the material. For tubing, this can help direct the type of hose barb that can be used (locking vs. traditional vs. custom.)
VIBRATION	Will the liquid cooling system be installed in a location with seismic activity? Or will it experience vibration during operation, such as would be common in a transit application?



Material Chemical Compatibility in Liquid Cooling

This presentation will provide a summary of how material selection of system components and subcomponents impacts performance and reliability.



[cpcworldwide.com/
Material-Chemical-Compatibility](http://cpcworldwide.com/Material-Chemical-Compatibility)

CPC RESOURCES

Thermal engineers, specifiers and owners/operators of thermal management systems can learn about material properties, temperature, and chemical considerations for liquid cooling applications by browsing and downloading white papers, tech guides and brochures from the Resources and Support section of CPC's website. White papers and tech guides are available for immediate download. For example, the table at bottom is from Tech Guide 5012: "Liquid Cooling and the Chemical Compatibility Imperative."

FLUID SELECTION

Coolant fluid viscosity, specific gravity and freezing and boiling points impact system design and component selection. Thermal engineers specifying quick disconnects for liquid cooling applications often begin by evaluating their fluid selection options:

FLUID	SPECIFIC GRAVITY	THERMAL CONDUCTIVITY W/MK	SPECIFIC HEAT J/KGK	VISCOSITY CP	BOILING °F	FREEZING °F	COST
1,1,1,2-TETRAFLUOROETHANE (R-134A)	0.52	0.082	1440	0.20	-15°	-154°	\$\$\$
MINERAL OIL	0.92	0.106	1670	6.64	392°	-15°	\$\$
WATER	1.00	0.580	4181	1.00	212°	32°	\$
PROPYLENE GLYCOL, 50% SOLUTION	1.04	0.357	3559	5.20	223°	-49°	\$\$
2,3,3,3-TETRAFLUOROPROPENE R1234YF)	1.10	0.064	1382	0.16	-22°	-238°	\$\$\$
ETHYLENE GLYCOL, 50% SOLUTION	1.13	0.402	3283	2.51	224°	-35°	\$\$
HYDROFLUOROETHER (HFE)	1.61	0.075	1300	0.45	93°	-189°	\$\$\$\$
FLUORINERT™ FC-72	1.68	0.057	1100	0.64	133°	-130°	\$\$\$\$
PERFLUOROPOLYETHER (PFPE)	1.70	0.090	960	0.45	392° - 500°	23°	\$\$\$\$

This chart is for illustration purposes only.
Please connect with a CPC engineer to discuss the specifics of your application.

TYPES OF LIQUID COOLING

There are two types of liquid cooling: direct and immersion. Both types of liquid cooling can use either a single-phase or a two-phase method.

DIRECT SINGLE-PHASE

A liquid cooled system is considered to be “single-phase” when the fluid used to extract heat from the electronics does not undergo a phase change; the coolant remains in liquid state throughout the cooling loop. The temperature of the fluid will vary depending upon where in the cooling circuit it is. The fluid is contained within piping or tubing and it is not in direct contact with the electronics being cooled. Pure water or a Water-Glycol mix is the common fluid in this type of system. QDs are required at the server entry and exit and also inside the cooling loop (for cold plate connections or internal manifolds inside the server blade). It is the most common loop in the market due to its effectiveness, relative ease of implementation, and overall cost-effectiveness.

DIRECT TWO-PHASE

When a coolant undergoes a phase change from liquid to gas and back to liquid within the cooling loop, it is considered direct two-phase cooling. The coolant in gas or fluid state is contained within the loop and it is not in direct contact with the system components being cooled. Dielectric fluids are used in these systems and quick disconnects are required at the server entry and exit, as well as inside the cooling loop. It is the most effective way of dissipating heat.

SINGLE PHASE IMMERSION

With immersion systems, electronics are safely submerged in dielectric fluid liquid in a sealed but readily accessible enclosure. The dielectric fluid is not conductive, allowing for the safe operation of electronics while in direct contact with the fluid. The heat from electronic components is transferred to the fluid. Pumps are often used to flow the heated fluid to a heat exchanger, where it is cooled and cycled back into the enclosure. In single-phase immersion cooling, fluid remains in its liquid phase. While very effective in heat dissipation, it requires sealed structures to prevent losses, and maintenance of the equipment can be messy.

TWO PHASE IMMERSION

Similar to single phase immersion systems, the electronic components requiring cooling are directly immersed in dielectric liquid in a sealed but readily accessible enclosure or tank. In two-phase immersion cooling however, the heat from electronic components causes the fluid to boil, producing vapor that rises from the liquid. The vapor then condenses on a heat exchanger (condenser) within the tank returning it to a liquid state which is returned to the tank. There is an exponential increase in heat transfer efficiency.



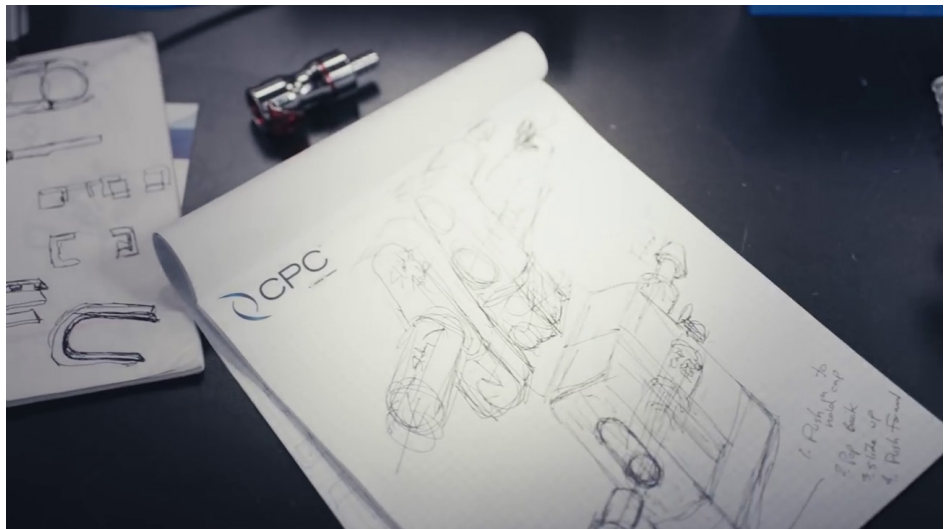
Data Center Video

See where CPC's purpose-built Everis® quick disconnects (QDs) are specified in liquid cooling for data center applications.



SCAN

[cpcworldwide.com/
Data-Centers-Video](http://cpcworldwide.com/Data-Centers-Video)

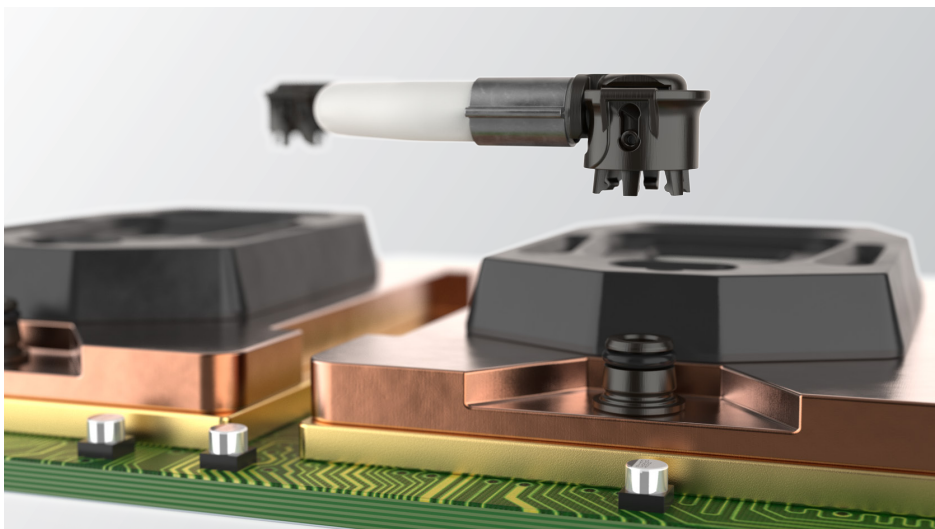


CUSTOM PROJECT CAPABILITIES

Drawing upon our established skills in innovation, we can engineer a custom-made connector for your application. Count on us to deliver the fluid handling expertise essential for your unique project requirements.

INNOVATION AND EXPERTISE PUT TO WORK FOR YOU

CPC believes in collaboration. Our engineers, working closely with your team, help solve challenging design or technical issues and help you get to market faster. Work with a company that has over 40 years' experience working with thousands of fluid management scenarios. Our highly knowledgeable experts help identify your challenges and optimize connector solutions for you to consider. Trust us to develop reliable connections for your liquid cooling application. Collaborating early in your design process empowers you to find the ideal connector perfectly suited for your needs.



CONSIDER A CUSTOM PROJECT

- When a new design would add value to a system making it easier to use, more reliable or more efficient
- When a specification cannot be met by an existing standard CPC product
- When a project has unique requirements such as space, performance, compatibility, budget, or scheduling challenges

Our Custom Engineering team supports a wide range of customer needs—from simple and minor modifications to fully customized components or assemblies. We're ready to meet your thermal management needs and fluid handling requirements.

CONTACT US

When in doubt, just ask. With such a variety of liquid cooling system types and the necessity for finely tuned thermal management performance where every component may have an impact, it can get confusing. CPC has layers of support to help solve challenging design or technical issues and help you get to market faster. Just ask. Call CPC's Customer Service at 1-800-444-2474. You can also send an email to liquidcool@colder.com.

**Call us at 1-800-444-2474 or
651-645-0091 or email us at
info@cpcworldwide.com**



Register on the website
to access CAD files for
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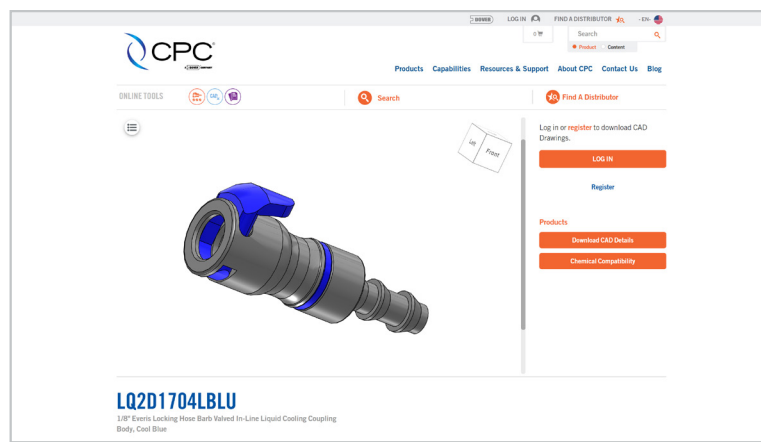
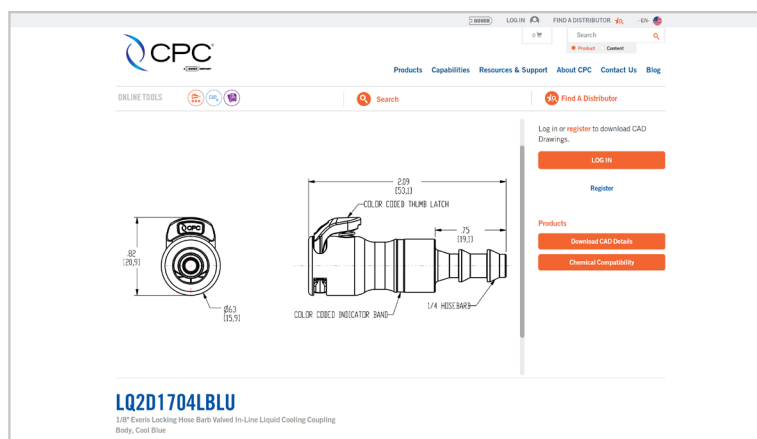


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DOWNLOAD SPEC SHEETS

You can research product characteristics, use the product specifier and find mating parts on the website. Register and login to cpcworldwide.com to download spec sheets with detailed product information.

DOWNLOAD CAD DRAWINGS

Once you've become a registered user on the CPC website, it's simple to download CAD files. Examine detail and compare products. Download CAD files instantly to drop into your assembly in your preferred file format. Downloads are available in a huge variety of file formats so you can easily design the CPC quick disconnects into your specific application even without a sample yet in hand.

ORDER PRODUCT SAMPLES

There is nothing like holding a product and seeing how smoothly and intuitively it works. Many quick disconnects are available in small quantities from the website. Purchase CPC's liquid cooling connectors conveniently and securely online using a credit card on each product page. Contact us if you need a sample for testing or prototyping.



WE'RE HERE TO HELP

FOLLOW

Learn about upcoming liquid cooling training, webinars and trade shows. Get access to complimentary event registrations where CPC engineers present their latest research or recommendations.

WATCH

CPC's YouTube channel features a liquid cooling playlist. Learn about trends from recorded interview conversations. Get information on new products from CPC experts.

CONTACT

If you need additional information about our liquid cooling quick connects or how we can help you research and identify the fluid handling connector solutions for your application, just contact us at liquidcool@colder.com or visit "Ask an Engineer" on our website. Our sales team, distributors and/or applications engineers can collaborate with you to specify, integrate, and deploy reliable thermal management QDs from CPC to meet your liquid cooling fluid management needs.

Get started by "Asking An Engineer."

Contact CPC with your quick disconnect and liquid cooling application-related questions. CPC's dedicated engineers are happy to help.



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LIQUID COOLING FLUID HANDLING
TO TAKE YOU FORWARD, FASTER

CPC (Colder Products Company) has been designing and manufacturing connectors since 1978. For more than a decade, CPC has supplied quick disconnect couplings or QDs (also known as quick release connectors) to manufacturers designing and building liquid cooling of electronics systems to address the heat density and high temperatures generated by technology such as powerful microchips and lasers. Our range of purpose-built for liquid cooling Everis® QDs are used by premier technology leaders in applications ranging from supercomputing and data centers to EV charging stations. CPC’s innovative non-spill coupling and connection technologies allow tubing to be quickly and easily connected and disconnected, instilling confidence for thermal engineers and system operators alike.







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CPC WARRANTY STATEMENT: CPC (Colder Products Company) warrants its products against defects in workmanship and materials for a period of 12 months from the date of sale by CPC to its initial customer (regardless of any subsequent sale of the products). This warranty is void if the product is misused, altered, tampered with or is installed or used in a manner that is inconsistent with CPC's written recommendations, specifications and/or instructions, or fails to perform due to normal wear and tear. CPC does not warrant the suitability of the product for any particular application. Determining product application suitability is solely the customer's responsibility. CPC is not liable for special, indirect, incidental, consequential or other damages including, but not limited to, loss, damage, personal injury, or any other expense directly or indirectly arising from the use of or inability to use its products either separately or in combination with other products. ALL OTHER WARRANTIES EXPRESS OR IMPLIED, WHETHER ORAL, WRITTEN OR IN ANY OTHER FORM, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY EXCLUDED. The sole and exclusive remedy under this warranty is limited, at the option of CPC, to replacement of the defective product or an account credit in the amount of the original selling price. All allegedly defective CPC products must be returned prepaid transportation to CPC, together with information describing the product's application and performance, unless otherwise authorized in writing by CPC.

CPC PATENT STATEMENT: CPC takes pride in its innovative quick disconnect coupling and fittings solutions, many of which have been awarded United States and international patents. CPC has a strong tradition of leadership in the quick disconnect market, and aggressively pursues and protects its proprietary information and intellectual property. In cases where it is practical and has a benefit to its customers, CPC has licensed its proprietary technology. Please contact CPC to discuss your unique needs.

CPC TRADEMARK STATEMENT: CPC, Colder Products Company, and Colder Products are registered trademarks with the United States Patent and Trademark Office. For detailed trademark information, please visit: <https://www.cpcworldwide.com/Trademarks>

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WARNING: Due to the wide variety of possible fluid media and operating conditions, unintended consequences may result from the use of this product, all of which are beyond the control of CPC. It is the user's responsibility to carefully determine and test for compatibility for use with their application. All such risks shall be assumed by the buyer.