

LIQUID COOLING

Quick Disconnect Couplings
Solutions for Data Centers and Supercomputers

September 2026

Parker

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60 YEARS OF KNOW-HOW

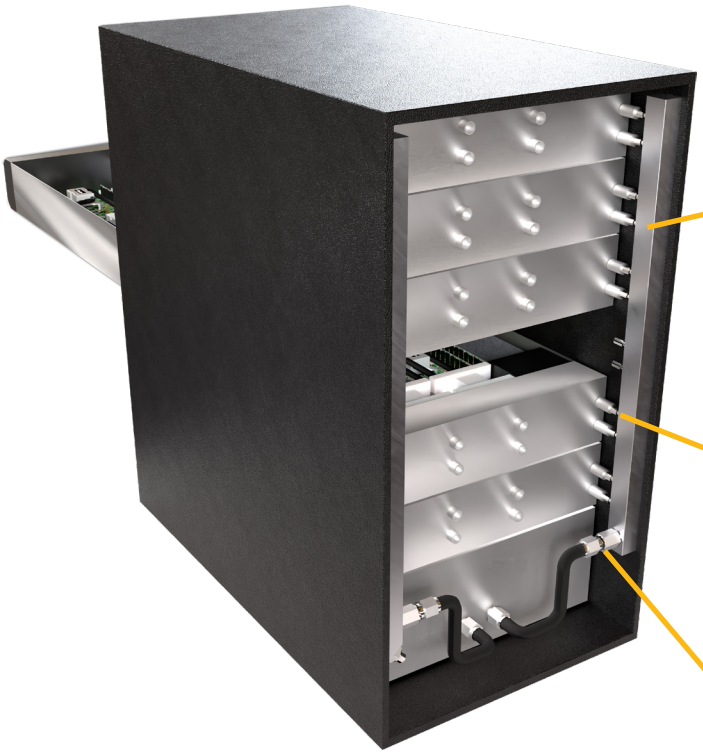
From standard product to customized solution – we meet your requirements

Energy efficiency and compact design play a major role in thermal management applications.

As a result of the low pressure drop of our coupling systems, we take energy saving into account at the same time as optimal performance. Reducing the sizes of our couplings allows their use in the most confined spaces.

The flat-sealing valve design reliably prevents any fluid loss during the coupling and uncoupling process, thereby protecting the sensitive electronics and all electrical connections.

You can be sure that the know how we have acquired from over 60 years in the development and production of quick connect couplings guarantees a reliable and efficient solution for your requirement.





Blind-mate QDs



Hand-mate QDs



CDU, Header QDs

QUICK DISCONNECT SELECTION GUIDE

Body Size (in.)	Connection Type	Body Material	Seal Material	Working Temp	Storage Temp	Working Pressure	Coupler Series
Manifold/Jumper Application							
02/04/06/08 in	Hand-Mate	Stainless Steel	EPDM	0°C to 70°C	-40°C to 120°C	150 psi / 10.3 bar	UQD
02/04/06/08 in	Blind-Mate	Stainless Steel	EPDM	0°C to 70°C	-40°C to 120°C	150 psi / 10.3 bar	UQDB
02/04 in	Hand-Mate	Stainless Steel	EPDM	0°C to 70°C	-40°C to 120°C	150 psi / 10.3 bar	NSG/NSP1
5 mm	Blind-Mate	Stainless Steel	EPDM	0°C to 60°C	-40°C to 120°C	50 psi / 3.4 bar	ORV
14 mm	Blind-Mate	Stainless Steel	EPDM	0°C to 60°C	-40°C to 120°C	75 psi/ 5.2 bar	BQC
Server Blade/Cold Plate							
02/03/04 in	Hand-Mate	Stainless Steel	EPDM	17 to 65°C	-40 to 65°C	100 psi/ 6.9 bar	MQD
02/03/04 in	Blind-Mate	Stainless Steel	EPDM	17 to 65°C	-40 to 65°C	100 psi/ 6.9 bar	MQDB
CDU/Pump							
25 mm	Hand-Mate	Stainless Steel	EPDM	-5° C to 60° C with PG25	-40°C to 120°C	75 psi / 5.2 bar	CDT
19 mm	Blind-Mate	Stainless Steel	EPDM	10 to 70°C	-40°C to 120°C	75 psi / 5.2 bar	CDB



LIQUID COOLING QUICK DISCONNECTS PORTFOLIO

Manifold/Jumper Application

UQD Series



Specification: OCP-UQD V1&V2

Connection: Hand-Mate

Funcationality: Push to connect, fully interchangeable with other UQD-approved manufacturers

UQDB Series



Specification: OCP-UQD V1&V2

Connection: Blind-Mate

Funcationality: Blind connection, fully interchangeable with other UQD-approved manufacturers

NSG/NSP1 Series



Specification: Proprietary

Connection: Hand-Mate

Funcationality: Push to connect, two-hand operation (NSG)

ORV Series



Specification: OCP - BMQC

Connection: Blind-Mate

Funcationality: Blind connection, ±5 mm misalignment allowed, 2.7˚ angular misalignment allowed

BQC Series



Specification: OCP - PBMC

Connection: Blind-Mate

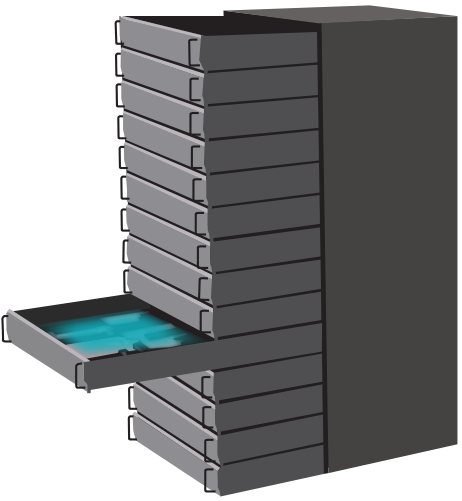
Funcationality: Blind connection, +5mm radial, +2.5˚ angular misalignment allowed, fully interchangeable with other BQC-approved manufacturers



Additional disconnects on the back of the server tray and/or back of the server

Connection: Blind-Mate Hand-Mate

LIQUID COOLING QUICK DISCONNECTS PORTFOLIO



Server Blade/Cold Plate

MQD Series



Specification: MQD

Connection: Push-to-connect

Funcationality: fully interchangeable with other MQD-approved manufacturers

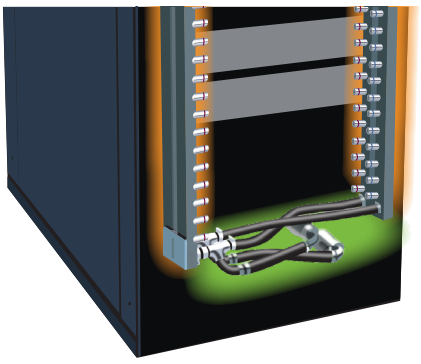
MQDB Series



Specification: MQD

Connection: Blind-Mate

Funcationality: fully interchangeable with other MQD-approved manufacturers



CDU/Pump

CDT Series



Specification: OCP - LQC

Connection: Hand-Mate

Funcationality: Two-hand operation, screw-to-Connect

CDB Series



Specification: Proprietary

Connection: Blind-Mate

Funcationality: Blind connection. high flow, ± 1.5mm misalignment allowed

Connection: Blind-Mate Hand-Mate

Liquid Cooling QDs
Nominal Diameter 02/04/06/08in

UQD Series
UQD Specification



Universal Quick Disconnect (UQD) is based on an open compute (OCP) design and approved on the Nvidia Partner Network (NPN).

Features

- OCP and NPN approved
- Fully interchangeable with other UQD-approved manufacturers
- No spillage during connection/disconnection
- Low pressure drop
- Advanced internal design for cooling applications

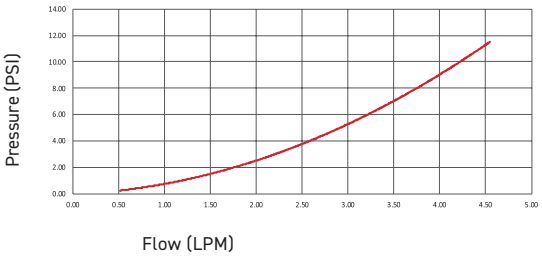
Specifications

Max. Working Pressure	150 psi / 10.3 bar	
Rated Working Temperature	0°C to 70°C (Extended temperature range is possible, contact Parker for more information.)	
Storage / Shipping Temperature	-40°C to 120°C	
Material	Socket: Stainless Steel Plug: Stainless Steel Seals: EPDM	
Connect Force - UQD v1	UQD02: 0 psi=14 lbs; 14 psi=15 lbs; 100 psi=20 lbs UQD04: 0 psi=20 lbs; 14 psi=22 lbs; 100 psi=35 lbs UQD06: 0 psi=18 lbs; 14 psi=22 lbs; 100 psi=45 lbs UQD08: 0 psi=26 lbs; 14 psi=33 lbs; 100 psi=63 lbs	
CV Values - UQD v1	UQD02 Plug-Socket: 0.33 UQD04 Plug-Socket: 1.22 UQD06 Plug-Socket: 2.60 UQD08 Plug-Socket: 3.90	UQD02 Socket-Plug: 0.30 UQD04 Socket-Plug: 1.10 UQD06 Socket-Plug: 2.25 UQD08 Socket-Plug: 4.09
Spillage/Air Inclusion - UQD v1	UQD02: .002mL / .011mL UQD04: .004mL / .08mL UQD06: .007mL / .15mL UQD08: .005mL / .35mL	

Flow Diagrams - UQD v1

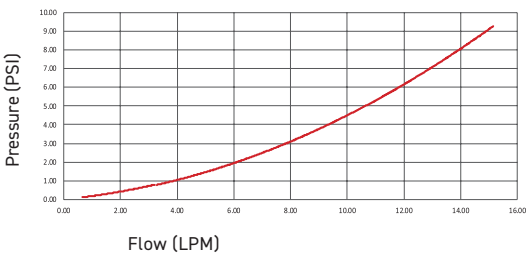
Water

UQD02



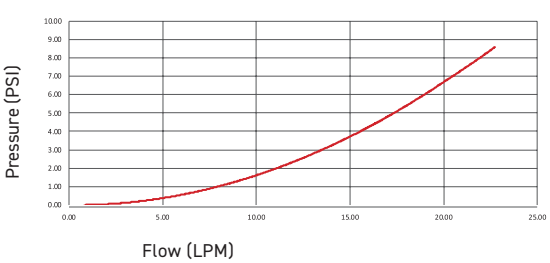
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UQD04



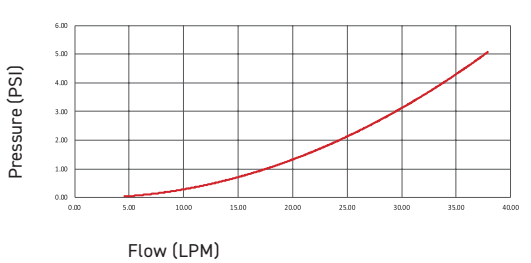
Water

UQD06



Water

UQD08

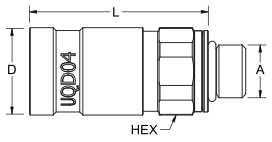


OCP INSPIRED™

Liquid Cooling QDs
Nominal Diameter 02/04/06/08in

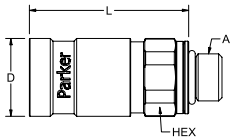
UQD Series
Sockets

UQD v1 Series Socket - Male Thread



Body Size	Connection A	HEX mm	L mm	D mm	Part Number
02in	7/16-20 UNF-2A	15.9	36.2	18.5	UQD-121-4MO
04in	9/16-18 UNF-2A	22.2	48.0	23.4	UQD-251-6MO
04in	G 1/4-19-A BSPP	15.9	50.0	23.4	UQD-251-4MB
04in	G 3/8-19-A BSPP	22.2	49.9	23.4	UQD-251-6MB
06in	G 3/8-19-A BSPP	25.4	53.9	27.4	UQD-371-6MB
06in	3/4-16 UNF-2A	25.4	54.9	27.4	UQD-371-8MO
08in	7/8-14 UNF-2A	28.6	63.3	32.6	UQD-501-10MO
08in	1 1/16-12 UNF-2A	34.0	61.8	32.6	UQD-501-12MO

UQD v2 Series Socket - Male Thread



Body Size	Connection A	HEX in (mm)	L mm	D in (mm)	Part Number
02in	7/16-20 UNF-2A	5/8" (15.9)	36.2	0.733" (18.6)	UQD2-121-4MO
04in	G 1/4-19-A BSPP	7/8" (22.2)	50.0	0.925" (23.5)	UQD2-251-4MB
04in	G 3/8-19-A BSPP	7/8" (22.2)	50.0	0.925" (23.5)	UQD2-251-6MB
04in	9/16-18 UNF-2A	7/8" (22.2)	48.0	0.925" (23.5)	UQD2-251-6MO
06in	G 3/8-19-A BSPP	1" (25.4)	56.2	1.09" (27.7)	UQD2-371-6MB
06in	3/4-16 UNF-2A	1" (25.4)	54.9	1.09" (27.7)	UQD2-371-8MO
08in	7/8-14 UNF-2A	1-1/8" (28.6)	63.3	1.284" (32.6)	UQD2-501-10MO

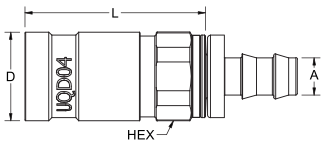
Liquid Cooling QDs

Nominal Diameter 02/04/06/08in

UQD Series

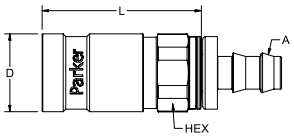
Sockets

UQD v1 Series Socket - Parker Push-Lok



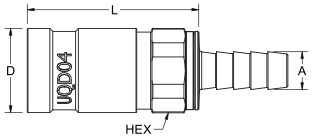
Body Size	Connection A	HEX mm	L mm	D mm	Part Number
02in	1/4"	14.3	35.6	18.5	UQD-121-4PL
04in	1/4"	22.2	47.7	23.4	UQD-251-4PL
04in	3/8"	22.2	47.7	23.4	UQD-251-6PL
06in	3/8"	25.4	52.4	27.7	UQD-371-6PL
06in	1/2"	25.4	52. 0	27.4	UQD-371-8PL
08in	5/8"	28.6	62.5	32.6	UQD-501-10PL

UQD v2 Series Socket - Parker Push-Lok



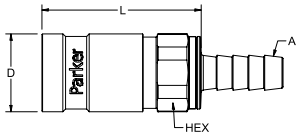
Body Size	Connection A	HEX in (mm)	L mm	D mm	Part Number
02in	1/4"	9/16" (14.3)	35.6	0.733" (18.6)	UQD2-121-4PL
04in	3/8"	7/8" (22.2)	48.0	0.925" (23.5)	UQD2-251-6PL
06in	1/2"	1" (25.4)	52. 6	1.09" (27.7)	UQD2-371-8PL
08in	5/8"	1-1/8" (28.6)	62.5	1.284" (32.6)	UQD2-501-10PL

UQD v1 Series Socket - Hose Barb



Body Size	Connection A	HEX mm	L mm	D mm	Part Number
04in	3/8"	22.2	47.8	23.4	UQD-251-6HB
06in	1/2"	25.4	52.5	27.7	UQD-371-8HB

UQD v2 Series Socket - Hose Barb

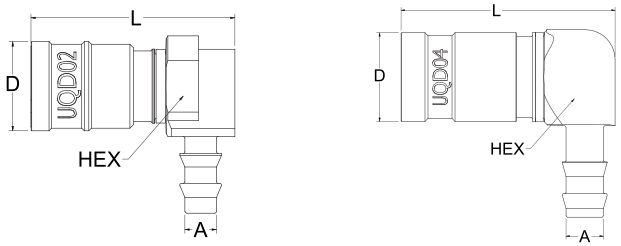


Body Size	Connection A	HEX in (mm)	L mm	D in (mm)	Part Number
04in	3/8"	7/8" (22.2)	48.0	0.925" (23.5)	UQD2-251-6HB
06in	1/2"	1" (25.4)	52.6	1.09" (27.7)	UQD2-371-8HB

Liquid Cooling QDs
Nominal Diameter 02/04/06/08in

UQD Series
Sockets

UQD v1 & v2 Series Couplers – 90 degree



Body Size	Connection A	HEX in (mm)	L mm	D in (mm)	Part Number
02in	1/4"	0.71" (18.0)	42.9	0.733" (18.6)	UQD-121-4CPL
04in	3/8"	0.854" (21.7)	56.6	0.923" (23.4)	UQD-251-6CPL
02in	1/4"	0.71" (18.0)	42.9	0.733" (18.6)	UQD2-121-4CPL
04in	3/8"	0.854" (21.7)	56.6	0.923" (23.4)	UQD2-251-6CPL

Optional Color Coding:
(add code to part number)

Code	Description	Part Number Example
Suffix **-RD**	Red color coding	UQD-251-6MO-RD
Suffix **-BU**	Blue color coding	UQD-251-6MO-BU

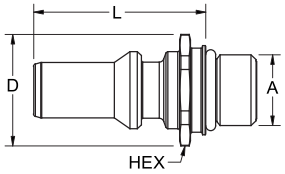
Liquid Cooling QDs

Nominal Diameter 02/04/06/08in

UQD Series

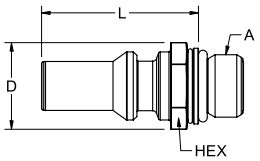
Plugs

UQD v1 Series Plug - Male Thread



Body Size	Connection A	HEX mm	L mm	D mm	Part Number
02in	G 1/8-28-A BSPP	12.7	28.5	14.3	UQD-122-2MB
02in	G 1/4-19-A BSPP	14.3	29.0	18.5	UQD-122-4MB
02in	7/16-20 UNF-2A	14.3	26.7	15.5	UQD-122-4MO
04in	G 1/4-19-A BSPP	20.6	52.9	22.2	UQD-252-4MB
04in	G 3/8-19-A BSPP	25.4	35.0	28.6	UQD-252-6MB
04in	9/16-18 UNF-2A	20.6	34.3	22.2	UQD-252-6MO
06in	G 3/8-19-A BSPP	25.4	65.0	29.3	UQD-372-6MB
06in	G 1/2-14 A BSPP	28.6	40.1	31.4	UQD-372-8MB
06in	3/4-16 UNF-2A	23.8	40.4	26.7	UQD-372-8MO
08in	G 1/2-14 A BSPP	28.6	44.1	31.4	UQD-502-8MB
08in	7/8-14 UNF-2A	28.6	43.4	31.4	UQD-502-10MO

UQD v2 Series Plug - Male Thread

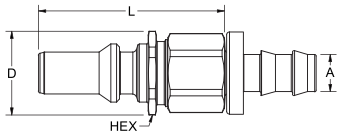


Body Size	Connection A	HEX in (mm)	L mm	D mm	Part Number
02in	G 1/8-28-A BSPP	0.55“ (14.0)	27.0	0.62“ (15.8)	UQD2-122-2MB
02in	7/16-20 UNF-2A	0.55“ (14.0)	27.0	0.62“ (15.8)	UQD2-122-4MO
02in	G 1/4-19-A BSPP	0.71“ (18.0)	27.0	0.73“ (18.5)	UQD2-122-4MB
04in	9/16-18 UNF-2A	0.67“ (17.0)	35.4	0.77“ (19.6)	UQD2-252-6MO
06in	G 1/2-14 A BSPP	0.866“ (22.0)	38.9	0.98“ (25.0)	UQD2-372-8MB
06in	3/4-16 UNF-2A	0.866” (22.0)	38.9	0.98“ (25.0)	UQD2-372-8MO
08in	7/8-14 UNF-2A	1.063“ (27.0)	42.9	1.175“ (29.9)	UQD2-502-10MO
08in	G 1/2-14-A BSPP	1.063“ (27.0)	42.9	1.175“ (29.9)	UQD2-502-8MB

Liquid Cooling QDs
Nominal Diameter 02/04/06/08in

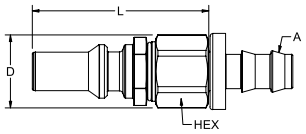
UQD Series
Plugs

UQD v1 Series Plug - Parker Push-Lok



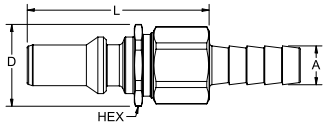
Body Size	Connection A	HEX mm	L mm	D mm	Part Number
02in	1/4"	15.9	39.3	17.5	UQD-122-4PL
04in	1/4"	20.6	49.4	22.2	UQD-252-4PL
04in	3/8"	20.6	49.4	22.2	UQD-252-6PL
06in	1/2"	23.8	56.9	26.7	UQD-372-8PL

UQD v2 Series Plug - Parker Push-Lok



Body Size	Connection A	HEX in (mm)	L mm	D in (mm)	Part Number
02in	1/4"	9/16" (14.3)	36.4	5/8" (15.8)	UQD2-122-4PL
04in	1/4"	3/4" (19.1)	50.7	0.825" (21.0)	UQD2-252-4PL
04in	3/8"	3/4" (19.1)	50.6	0.825" (21.0)	UQD2-252-6PL
06in	1/2"	15/16" (23.81)	55.4	1.03" (26.2)	UQD2-372-8PL
08in	5/8"	1.063" (27.0)	32.2	1.175" (29.85)	UQD2-502-10PL

UQD v1 Series Plug - Hose Barb



Body Size	Connection A	HEX mm	L mm	D mm	Part Number
02in	1/4"	15.9	40.6	17.3	UQD-122-4HB
04in	3/8"	20.6	49.4	22.2	UQD-252-6HB
06in	1/2"	23.8	56.9	26.7	UQD-372-8HB

Optional Color Coding:
(add code to part number)

Code	Description	Part Number Example
Suffix **-RD**	Red color coding	UQD-251-6MO-RD
Suffix **-BU**	Blue color coding	UQD-251-6MO-BU

Liquid Cooling QDs
Nominal Diameter 02/04/06/08in

UQDB Series
UQDB Specification



Universal Quick Disconnect Blindmate (UQDB) is based on an open compute (OCP) design and approved on the Nvidia Partner Network (NPN).

Features

- Fully interchangeable with other UQDB-approved manufacturers
- No spillage during connection/disconnection
- Low pressure drop
- Advanced internal design for cooling applications
- Excellent resistance to vibrations and mechanical stresses

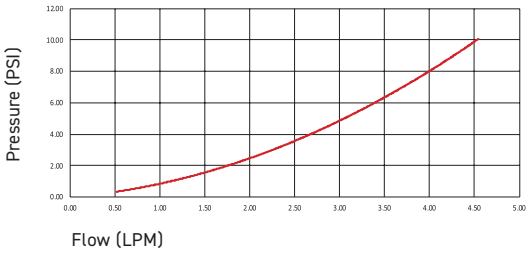
Specifications

Max. Working Pressure	150 psi / 10.3 bar	
Rated Working Temperature	0°C to 70°C (Extended temperature range is possible, contact Parker for more information.)	
Storage / Shipping Temperature	-40°C to 120°C	
Material	Socket: Stainless Steel, Plug: Stainless Steel and Zinc Plated Steel, Seals: EPDM	
Connect Force - UQDB v1	UQDB02: 0 psi=8 lbs; 14 psi=9 lbs; 100 psi=13 lbs UQDB04: 0 psi=14 lbs; 14 psi=16 lbs; 100 psi=29 lbs UQDB06: 0 psi=14 lbs; 14 psi=18 lbs; 100 psi=39 lbs UQDB08: 0 psi=23 lbs; 14 psi=28 lbs; 65 psi=49 lbs	
CV Values - UQDB v1	UQDB02 Plug-Socket: 0.33 UQDB04 Plug-Socket: 1.22 UQDB06 Plug-Socket: 2.60 UQDB08 Plug-Socket: 3.90	UQDB02 Socket-Plug: 0.30 UQDB04 Socket-Plug: 1.10 UQDB06 Socket-Plug: 2.25 UQDB08 Socket-Plug: 4.09
Spillage/Air Inclusion - UQDB v1	UQDB02: .002mL / .011mL UQDB04: .004mL / .08mL UQDB06: .007mL / .15mL UQDB08: .005mL / .35mL	

Flow Diagrams - UQDB v1

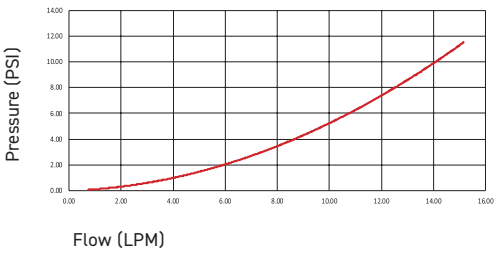
Water

UQDB02



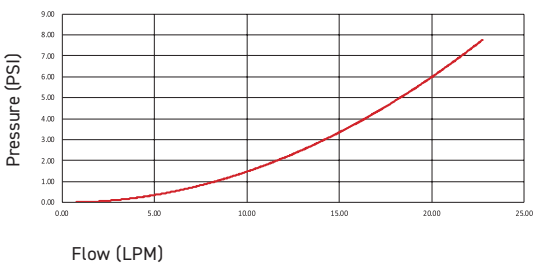
Water

UQDB04



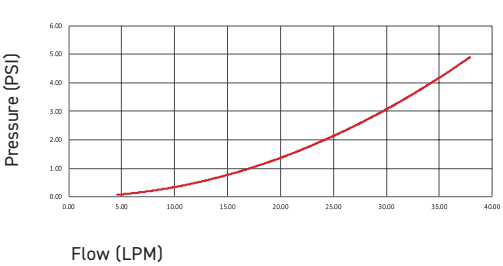
Water

UQDB06



Water

UQDB08



OCP INSPIRED™

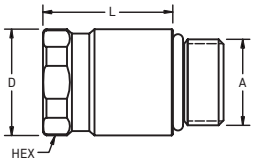
Liquid Cooling QDs

Nominal Diameter 02/04/06/08in

UQDB Series

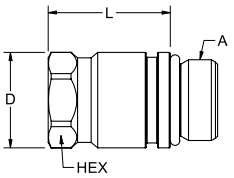
Plugs and Sockets

UQDB v1 Series Socket



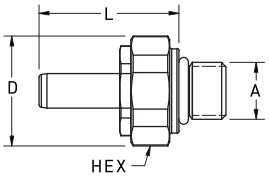
Body Size	Connection A	HEX mm	L mm	D mm	Part Number
02in	9/16-18 UNF-2A	17.0	23.6	18.0	UQDB-121-6MO
04in	3/4-16 UNF-2A	23.8	28.5	24.7	UQDB-251-8MO
06in	7/8-14 UNF-2A	27.0	31.8	28.3	UQDB-371-10MO
08in	1 1/16-12 UN-2A	28.0	35.5	31.2	UQDB-501-12MO

UQDB v2 Series Socket



Body Size	Connection A	HEX in (mm)	L mm	D in (mm)	Part Number
02in	9/16-18 UNF-2A	0.63" (16.0)	23.62	0.689" (17.5)	UQDB2-121-6MO
04in	3/4-16 UNF-2A	0.787" (20.0)	28.5	0.878" (22.3)	UQDB2-251-8MO
06in	7/8-14 UNF-2A	0.984" (25.0)	31.75	1.083" (27.5)	UQDB2-371-10MO
08in	1 1/16-12 UN-2A	1.063" (27.0)	35.56	1.299" (33.0)	UQDB2-501-12MO

UQDB v1 Series Plug



Body Size	Connection A	HEX mm	L mm	D mm	Part Number
02in	7/16-20 UNF-2A	20.0	27.0	21.2	UQDB-122-4MO
04in	9/16-18 UNF-2A	24.0	35.4	25.3	UQDB-252-6MO
06in	3/4-16 UNF-2A	27.0	38.9	28.3	UQDB-372-8MO
08in	7/8-14 UNF-2A	28.0	42.9	31.2	UQDB-502-10MO

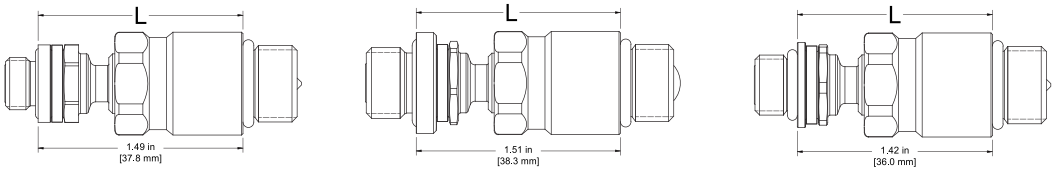
Liquid Cooling QDs

Nominal Diameter 02/04/06/08in

Industry Architecture

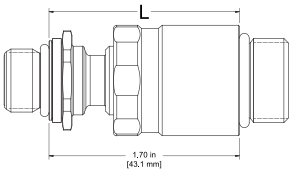
UQD Plug plus UQDB Female

UQD02 Plug + UQDB02 Socket



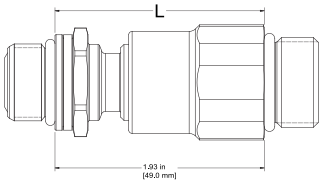
Body Size	Part Number	L mm
02in	UQDB-121-6MO socket + UQD-122-2MB plug	37.8
02in	UQDB-121-6MO socket + UQD-122-4MB plug	38.3
02in	UQDB-121-6MO socket + UQD-122-4M0 plug	36.0

UQD04 Plug + UQDB04 Socket



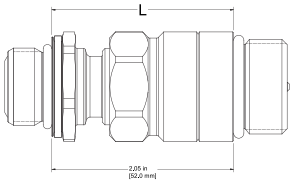
Body Size	Part Number	L mm
04in	UQDB-251-8MO socket + UQD-252-6M0 plug	43.1

UQD06 Plug + UQDB06 Socket



Body Size	Part Number	L mm
06in	UQDB-371-10MO socket + UQD-372-8M0 plug	49.0

UQD08 Plug + UQDB08 Socket



Body Size	Part Number	L mm
08in	UQDB-501-12MO socket + UQD-502-10M0 plug	52.0

Liquid Cooling QDs
Nominal Diameter 02/04 in

NSG/NSP1 Series
Hand-mate, Manifold Connections

NSG



NSP1



The NSG and NSP1 series are dry-break couplings with flat face valves. The compact design makes them suitable for reduced spaces. NSG is a two-hand operation, i.e. both hand are required when connecting/disconnecting. NSP is a push-to-connect, single-hand operation.

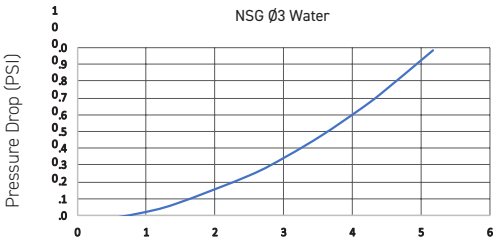
Features
- No spillage during connection/disconnection
- Low pressure drop
- Advanced internal design for cooling applications

Specifications

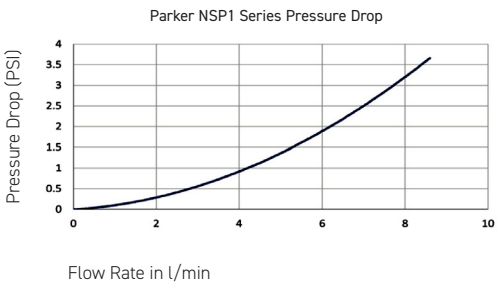
Max. Working Pressure	150 psi / 10.3 bar	
Rated Working Temperature	0°C to 70°C (Extended temperature range is possible, contact Parker for more information.)	
Storage / Shipping Temperature	-40°C to 120°C	
Material	Socket: Stainless Steel Plug: Stainless Steel Seals: EPDM	
Connect Force	**NSG**	**NSP1**
	14 psi = 15 lbs 100 psi = 19 lbs	0 psi = 25 lbs 100 psi - 45 lbs
CV Values	Socket to Plug - .363 Plug to Socket - .414 Average - .392	Socket to Plug - 1.11 Plug to Socket - 1.22 Average - 1.16
Spillage/Air Inclusion	.002 mL	.01 mL

Flow Diagrams

Water



Water



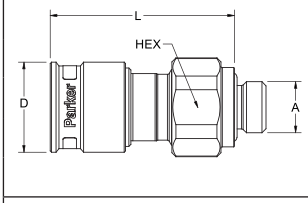
Liquid Cooling QDs

Nominal Diameter 02/04 in

NSG/NSP1 Series

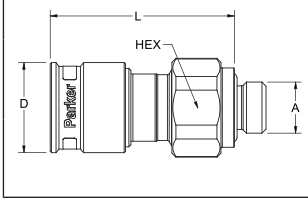
Sockets

NSG/NSP1 Series Socket - Male Thread



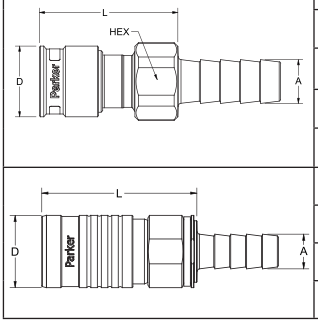
Body Size	Connection A	HEX mm	L mm	D mm	Part Number
3mm	G 1/8	17.5	34.8	17.0	NSG-121-2MB
6mm	1/4-18 NPT	22.2	48.3	22.0	NSP1-251-4MP
6mm	9/16-18 UNF-2A	22.2	50.7	22.0	NSP1-251-6MO

NSG/NSP1 Series Socket - Female Thread



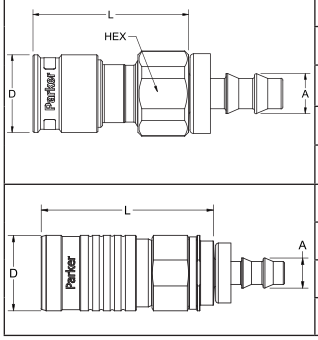
Body Size	Connection A	HEX mm	L mm	D mm	Part Number
6mm	1/4-18 NPTF	22.2	58.5	22.0	NSP1-251-4FP

NSG/NSP1 Series Socket - Hose Barb



Body Size	Connection A	HEX mm	L mm	D mm	Part Number
3mm	3/8" Hose Barb	17.5	33.3	17.0	NSG-121-6HB
6mm	3/8" Hose Barb	22.0	47.1	22.0	NSP1-251-6HB

NSG/NSP1 Series Socket - Parker Push-Lok



Body Size	Connection A	HEX mm	L mm	D mm	Part Number
3mm	1/4" Pushlok	17.5	34.1	17.0	NSG-121-4PL
6mm	1/4" Pushlok	22.0	50.2	22.0	NSP1-251-4PL

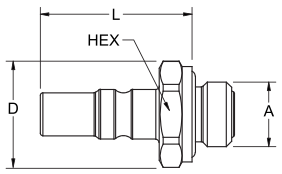
Liquid Cooling QDs

Nominal Diameter 02/04 in

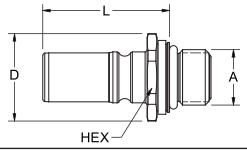
NSG/NSP1 Series

Plugs

NSG/NSP1 Series Plugs - Male Thread

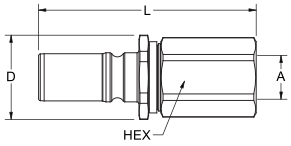


Body Size	Connection A	HEX mm	L mm	D mm	Part Number
3mm	G 1/8	14.3	22.7	15.9	NSG-122-2MB



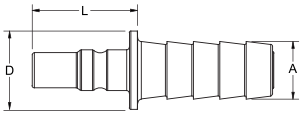
Body Size	Connection A	HEX mm	L mm	D mm	Part Number
6mm	G 1/4-19-A BSPP	20.6	50.9	22.2	NSP1-252-4MB
6mm	1/4-18 NPTF	19.1	52.2	22.2	NSP1-252-4MP
6mm	9/16-18 UNF-2A	20.6	32.3	22.2	NSP1-252-6MO

NSG/NSP1 Series Plugs - Female Thread

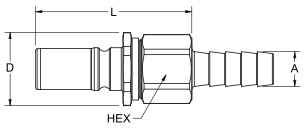


Body Size	Connection A	HEX mm	L mm	D mm	Part Number
6mm	1/4-18 NPT	20.6	57.4	22.2	NSP1-252-4FP

NSG/NSP1 Series Plugs - Hose Barb



Body Size	Connection A	HEX mm	L mm	D mm	Part Number
3mm	3/8" Hose Barb	N/A	19.3	14.3	NSG-122-6HB



Body Size	Connection A	HEX mm	L mm	D mm	Part Number
6mm	3/8" Hose Barb	20.6	47.4	22.2	NSP1-252-6HB

Optional Color Coding:
(add code to part number)

Code	Description	Part Number Example
Suffix **-RD**	Red color coding	NSP1-251-6MO-RD
Suffix **-BU**	Blue color coding	NSP1-251-6MO-BU

Liquid Cooling QDs

Nominal Diameter 02/03/04in

MQD Series

MQD Specification



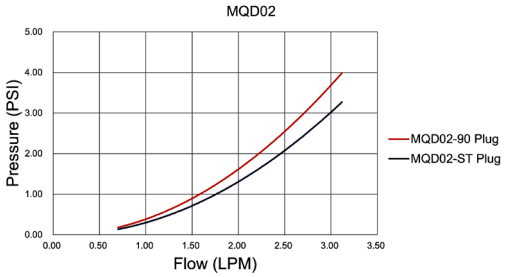
Parker's MQD Series features compact, hand-mate quick disconnects for server trays and racks in liquid cooling systems. These connectors deliver high flow performance in a space-efficient package for AI and data center liquid cooling, while complying with NVIDIA's MQD specification and are interoperable with products from other approved MQD manufacturers.

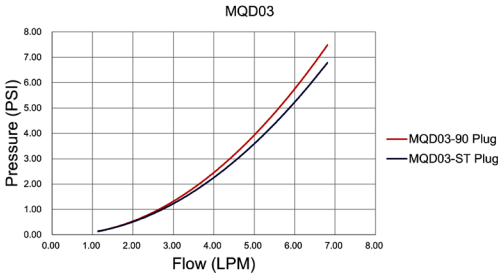
Features

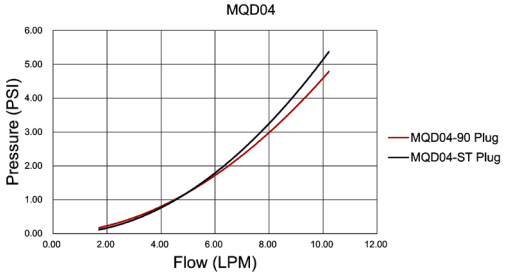
- Global manufacturing and service capabilities
- Flush-face valve design prevents any fluid loss and optimum protection of electrical components
- End of line helium leak testing for quality assurance
- Reduced pressure drop for superior energy efficiency and system performance

Specifications	
Max. Working Pressure	100 psi
Rated Working Temperature	17°C to 65°C
Storage / Shipping Temperature	-40°C to 65°C
Material	Socket: Stainless Steel Plug: Stainless Steel Seals: EPDM
Connect Force	MQD02 – 50.7 N MQD03 – 51.9 N MQD04 – 59.8 N
CV Values	MQD02 > 0.3 MQD03 > 0.6 MQD04 > 1.0
Spillage/Air Inclusion	MQD02 - 0.0004 mL MQD03 - 0.0006 mL MQD04 - 0.0007 mL

Flow Diagrams







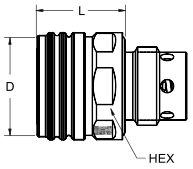
Liquid Cooling QDs

Nominal Diameter 02/03/04in

MQD Series

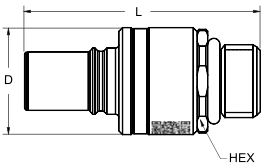
Plugs and Sockets

MQD Series Socket - Male Thread



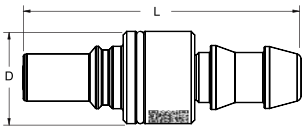
Body Size	Connection A	HEX mm	L mm (Front to Thread)	D mm (OD of Sleeve)	Part Number
02in	7/16-20 UNF	16.0	15.4	18.0	MQD-121-4MO-BU
02in	7/16-20 UNF	16.0	15.4	18.0	MQD-121-4MO-RD
03in	G 1/4-19 BSPP	17.0	14.5	18.0	MQD-181-4MB-BU
03in	G 1/4-19 BSPP	17.0	14.5	18.0	MQD-181-4MB-RD
04in	G 3/8-19 BSPP	20.0	21.8	21.0	MQD-251-6MB-BU
04in	G 3/8-19 BSPP	20.0	21.8	21.0	MQD-251-6MB-RD

MQD Series Plug- Male Thread



Body Size	Connection A	HEX mm	L mm (OAL)	D mm (OD)	Part Number
03in	7/16-20 UNF	14.9	35.4	16.1	MQD-182-4MO-BU
03in	7/16-20 UNF	14.9	35.4	16.1	MQD-182-4MO-RD
04in	7/16-20 UNF	15.9	39.0	18.1	MQD-252-4MO-BU
04in	7/16-20 UNF	15.9	39.0	18.1	MQD-252-4MO-RD

MQD Series Plug- Hose Barb



Body Size	Connection A	L mm	D mm	Part Number
02in	1/4"	39.2	13	MQD-122-4HB-BU
02in	1/4"	39.2	13	MQD-122-4HB-RD

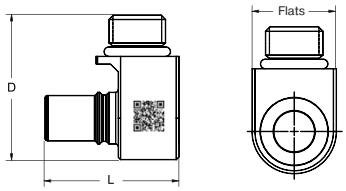
Liquid Cooling QDs

Nominal Diameter 02/03/04in

MQD Series

Plugs and Sockets

MQD Series Plug- 90 degree



Body Size	Connection A	Flats mm	L mm (OAL)	D mm (Height)	Part Number
03in	7/16-20 UNF	16.1	26.0	28.1	MQD-182-4CM0-BU
03in	7/16-20 UNF	16.1	26.0	28.1	MQD-182-4CM0-RD
04in	7/16-20 UNF	18.1	30.8	32.0	MQD-252-4CM0-BU
04in	7/16-20 UNF	18.1	30.8	32.0	MQD-252-4CM0-RD

Liquid Cooling QDs

Nominal Diameter 02/03/04in

MQDB Series

MQDB Specification



Multi Quick Disconnect Blindmate (MQDB) is designed for liquid cooling applications in data centers, servers, and supercomputers, and is based on an NVIDIA-driven interchange for in-tray and inner-manifold liquid connections.

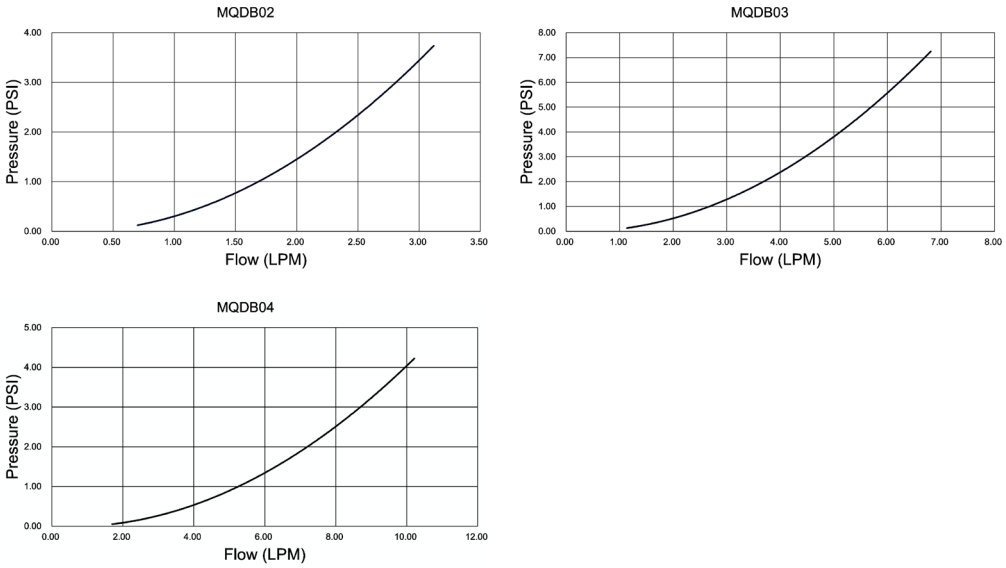
Features

- Flush-face valve design prevents any fluid loss and optimum protection of electrical components
- Global manufacturing and service capabilities
- Manufacturing and assembly processes that reduces contamination
- End of line helium leak testing for quality assurance
- Reduced pressure drop for superior energy efficiency and system performance

Specifications

Max. Working Pressure	100 psi
Rated Working Temperature	17°C to 65°C
Storage / Shipping Temperature	-40°C to 65°C
Material	Socket: Stainless Steel Plug: Stainless Steel Seals: EPDM
Connect Force	MQDB02 – 47.7 N MQDB03 – 47.9 N MQDB04 – 54.0 N MQDB04-1 – 54.7 N
CV Values	MQDB02 > 0.3 MQDB03 > 0.6 MQDB04 > 1.0 MQDB04-1 > 1.0
Spillage/Air Inclusion	MQDB02 - 0.0004 mL MQDB03 - 0.0006 mL MQDB04 - 0.0007 mL MQDB04-1 - 0.0007 mL

Flow Diagrams



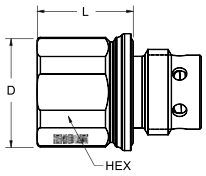
Liquid Cooling QDs

Nominal Diameter 02/03/04in

MQDB Series

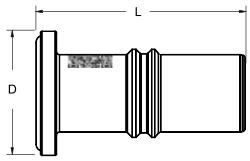
MQDB Specification

MQDB Series Socket - Male Thread



Body Size	Connection A	HEX mm	L mm (Front to Thread)	D mm (Max OD)	Part Number
02in	7/16-20 UNF	15.9	15.4	16.85	MQDB-121-4MO
03in	G 1/4-19 BSPP	15.9	14.5	18.0	MQDB-181-4MB
04in	G 3/8-19 BSPP	18.8	21.5	21.6	MQDB-251-6MB
04in	G 3/8-19 BSPP	17.9	21.5	19.0	MQDB1-251-6MB

MQDB Series Plug



Body Size	Connection A	HEX mm	L mm (OAL)	D mm (OD)	Part Number
02in	N/A	N/A	23.4	13.9	MQDB-122-001
03in	N/A	N/A	23.2	14.1	MQDB-182-001
04in	N/A	N/A	28.6	16.1	MQDB-252-001

Liquid Cooling QDs

Nominal Diameter 5mm

ORV Series

ORv3 BMQC Specification



ORV Series is based on OCP inspired ORv3 BMQC open specification.

Features

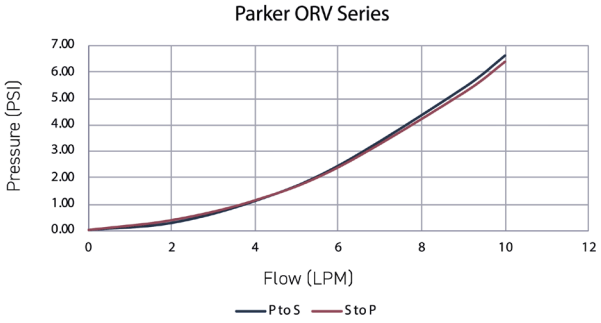
- High flow with low pressure drop
- No spillage during connection/disconnection
- Blind mate connection with high degrees of float to accommodate angular and radial misalignment
- Self-centering plug to ensure repeatable connection sequences

Specifications

Max. Working Pressure	50 psi / 3.4 bar
Rated Working Temperature	0°C to 60°C
Storage / Shipping Temperature	-40°C to 120°C
Material	Socket: Stainless Steel Plug: Stainless Steel and Zinc Plated Steel Seals: EPDM
Connect Force	55N @ 0 psi 96N @ 50 psi Static force at full connection
Spillage/Air Inclusion	@ 0 psi: .01mL / <.1mL @ 50 psi: .03mL / <.1mL

Flow Diagrams

PG25 @ 40°C

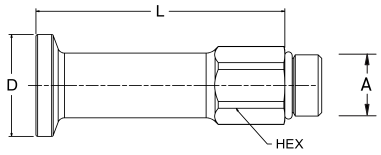


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Liquid Cooling QDs
Nominal Diameter 5mm

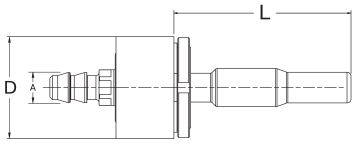
ORV Series
Plugs and Sockets

ORV Series Socket



Body Size	Connection A	HEX mm	L mm	D mm	Part Number
5mm	3/4-16 UNF-2A	22.0	75.0	31.5	ORV-251-8MO

ORV Series Plug



Body Size	Connection A	Mounting / Install	L mm	D mm	Part Number
5mm	-6 Tube Barb	See OCP Spec	67.7	40.0	ORV-252-6TB

Liquid Cooling QDs
Nominal Diameter 14mm

BQC Series
PBMC Specification



BQC series is based on an OCP (Open Compute) PBMC-aligned design for liquid-cooled infrastructure. It features a stainless-steel, pivoting blind-mate configuration that delivers high-flow, non-spill performance for serviceable racks.

Features

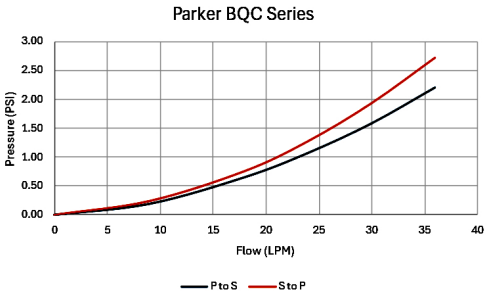
- 2x rated flow performance when compared to other industry products of similar body size
- BQC misalignment capabilities deliver a reliable connection while reducing connection forces and binding
- The PBMC spec features extensive performance and interoperability qualification testing, delivering consistent results between suppliers
- Compact design reduces space claim within IT tray

Specifications

Max. Operating Pressure	75 psi
Rated Working Temperature	-5°C to 60°C
Storage / Shipping Temperature	-40°C to 120°C
Material	Socket: Stainless Steel Plug: Stainless Steel Seals: EPDM
Connect Force	130 N @ 0 PSI 295 N @ 75 PSI Static force at full connection
Spillage/Air Inclusion	@ 0 psi: .03mL / .33mL
Pressure Drop	Plug to Socket: 2.2 psi Socket to Plug: 2.7 psi At 36 LPM

Flow Diagrams

PG25 @ 35°C

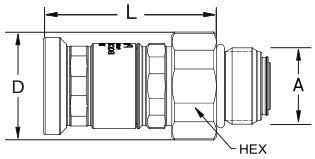


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Liquid Cooling QDs
Nominal Diameter 14mm

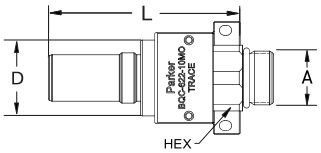
BQC Series
Plugs and Sockets

BQC Series Socket



Body Size	Connection A	HEX mm	L mm	D mm	Part Number
14mm	1 1/16-12 UN	35.9	63.4	37.9	BQC-621-12MO

BQC Series Plug



Body Size	Connection A	HEX mm	L mm	D mm	Part Number
14mm	7/8-14 UNF	26.9	79.5	31.0	BQC-622-10MO

Liquid Cooling QDs
Nominal Diameter 19mm

CDB Series
Blind-mate, Manifold Connections



The CDB Series coupling are dry-break, blind mate couplings. They allow for misalignment at connection between the plug and socket half.

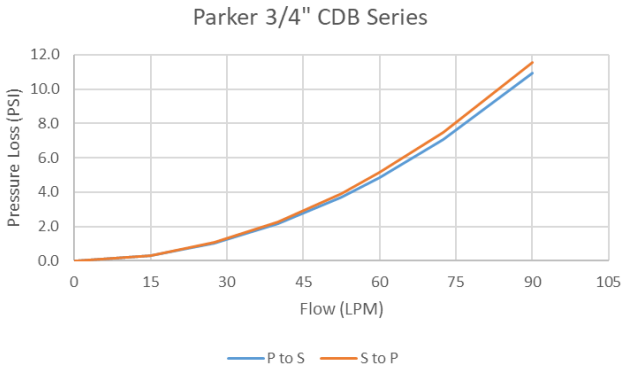
Features

- Low spillage during connection and disconnection
- Low pressure drop
- Highly advanced internal design for cooling applications
- Suitable for main inlet/outlet connections for cooling circuits in a low profile design
- Allows for ± 1.5 mm misalignment at connection

Specifications

Static Design Pressure **Maximum Static Pressure**	75 psi / 5.17 bar 150 psi / 10.34 bar *maximum static working pressure with safety factor 4 to 1
Rated Working Temperature	10°C to 70°C
Storage / Shipping Temperature	-40°C to 120°C
Material	Socket: Stainless Steel Plug: Stainless Steel Seals: EPDM
CV Values	Plug-Socket 7.2 / Socket-Plug 7
Spillage/Air Inclusion	0.05ml / 0.30ml

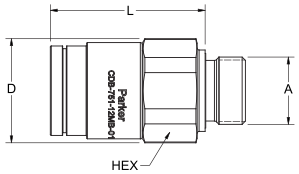
Flow Diagrams



Liquid Cooling QDs
Nominal Diameter 19mm

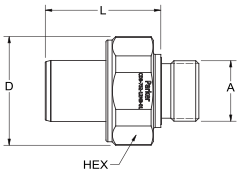
CDB Series
Plugs and Sockets

CDB Series Socket



Body Size	Connection A	HEX mm	L mm	D mm	Part Number
19mm	G 3/4 - 14-A BSPP	38.1	60.4	40.6	CDB-751-12MB-01

CDB Series Plug



Body Size	Connection A	HEX mm	L mm	D mm	Part Number
19mm	G 3/4 - 14-A BSPP	44.5	47.9	47.2	CDB-752-12MB-01

Liquid Cooling QDs
Nominal Diameter 25mm

CDT Series
Threaded, CDU Connection



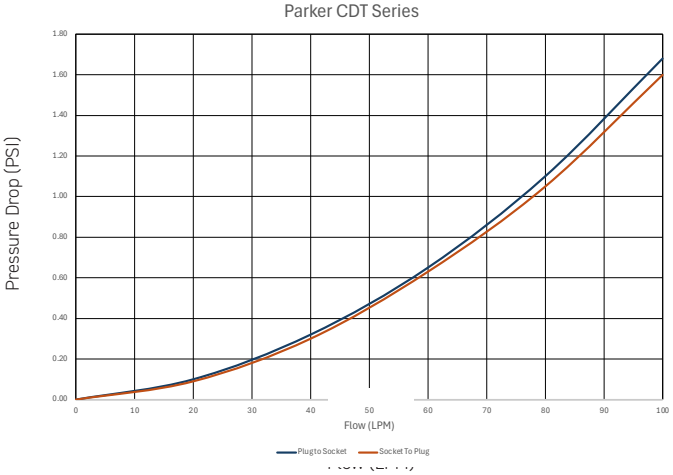
The CDT Series are dry-break, thread-to-connect quick disconnects for inlets and manifolds in liquid cooling systems. The threaded connection provides a mechanical advantage for safely connecting and disconnecting with working pressures up to 50 psi. The connection includes redundant seals to help prevent leaks. It is ideal for use in valve trains and CDUs.

Features
- High flow with low pressure drop
- No spillage during connection/disconnection
- Threaded connection and disconnection
- Each part includes a red and blue band for color coding
- Designed for interchangeability and interoperability with OCP LQC Version 2.0.0

Specifications

Static Design Pressure **Maximum Static Pressure**	75 psi / 5.2 bar 175 psi / 12 bar *maximum static working pressure with safety factor 4 to 1
Working Temperature	-5° C to 60° C with PG25
Storage / Shipping Temperature	-40°C to 120°C
Material	Socket: Stainless Steel Plug: Stainless Steel Seals: EPDM
Connect Force	0 psi: 31 in-lbs (3.5 Nm)
CV Values	15.9
Spillage/Air Inclusion	0.10ml / 0.83ml

Flow Diagrams

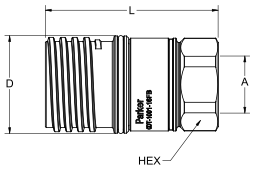


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Liquid Cooling QDs
Nominal Diameter 25mm

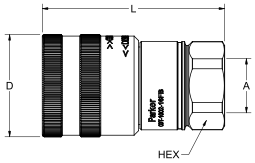
CDT Series
Plugs and Sockets

CDT Series Socket



Body Size	Connection A	HEX mm	L mm	D mm	Part Number
25mm	G 1 - 11-A BSPP	46.0	92.7	52.2	CDT-1001-16FB

CDT Series Plug



Body Size	Connection A	HEX mm	L mm	D mm	Part Number
25mm	G 1 - 11-A BSPP	46.0	102.8	57.7	CDT-1002-16FB

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