



LIQUID COOLING

Quick Disconnect Couplings
Solutions for Data Centers and Supercomputers

August 2025



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60 YEARS OF KNOW-HOW

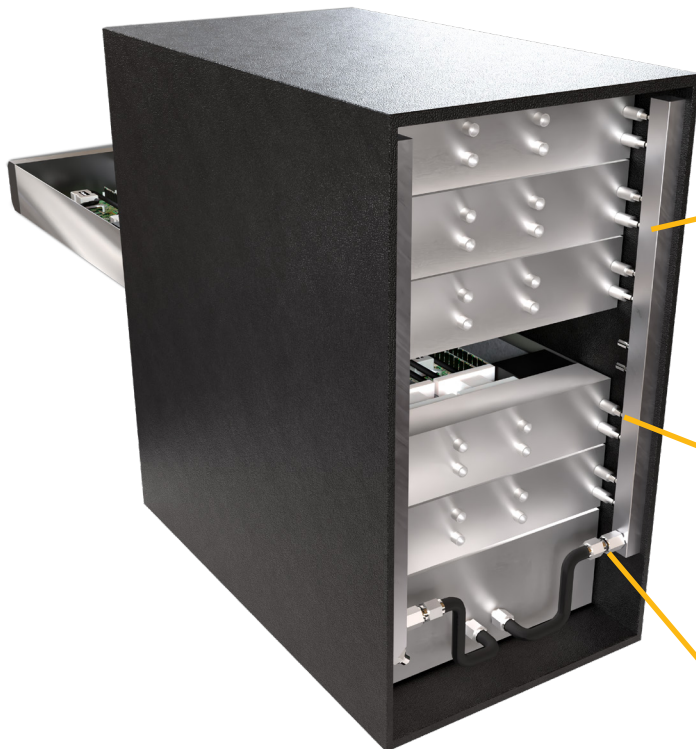
From standard product to customized solution – we meet your requirements

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

THERMAL MANAGEMENT RANGE AT A GLANCE

Find the ideal product for your application



	UQD Series	UQDB Series	NSG/NSP1 Series
Working Pressure	150 psi / 10.3 bar	150 psi / 10.3 bar	150 psi / 10.3 bar
Working Temperature	0°C to 70°C	0°C to 70°C	0°C to 70°C
Storage Temperature	-40°C to 120°C	-40°C to 120°C	-40°C to 120°C
Nominal Diameter	02/04/06/08in	02/04/06/08in	02/04in
Materials	Body: Stainless Steel Seals: EPDM	Body: Stainless Steel, Zinc Plated Steel Seals: EPDM	Body: Stainless Steel Seals: EPDM
Functionality	• Push to connect • Fully interchangeable with other UQD-approved manufacturers	• Blind connection • Fully interchangeable with other UQDB-approved manufacturers	• Push to Connect (NSP1) • Two-hand operation (NSG)

THERMAL MANAGEMENT RANGE AT A GLANCE

Find the ideal product for your application



	ORV Series	CDT Series	CDB Series
Working Pressure	50 psi / 3.4 bar	50 psi / 3.4 bar	75 psi / 5.17 bar
Working Temperature	0°C to 60°C	10°C to 70°C	10°C to 70°C
Storage Temperature	-40°C to 120°C	-40°C to 120°C	-40°C to 120°C
Nominal Diameter	5mm	25mm	19mm
Materials	Body: Stainless Steel, Zinc Plated Steel Seals: EPDM	Body: Stainless Steel Seals: EPDM	Body: Stainless Steel Seals: EPDM
Functionality	• Blind connection • $\pm 5\text{mm}$ misalignment allowed • 2.7° angular misalignment allowed	• Two-hand operation • Screw-to-Connect	• Blind connection • High flow • $\pm 1.5\text{mm}$ misalignment allowed

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

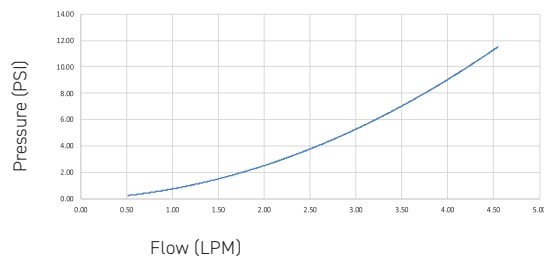
Specifications

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	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	UQD02 Plug-Socket: 0.35 UQD04 Plug-Socket: 1.26 UQD06 Plug-Socket: 2.60 UQD08 Plug-Socket: 3.90	UQD02 Socket-Plug: 0.32 UQD04 Socket-Plug: 1.13 UQD06 Socket-Plug: 2.25 UQD08 Socket-Plug: 4.09
Spillage/Air Inclusion	UQD02: .002mL / .011mL UQD04: .004mL / .08mL UQD06: .007mL / .15mL UQD08: .005mL / .35mL	

Flow Diagrams

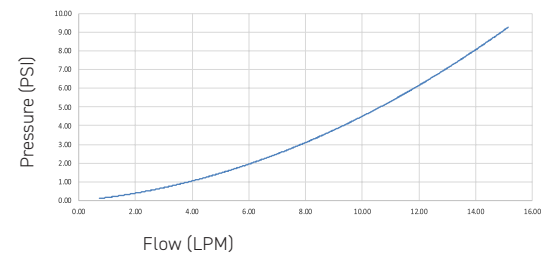
Water

UQD02



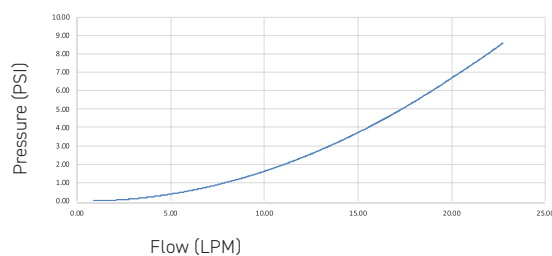
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UQD04



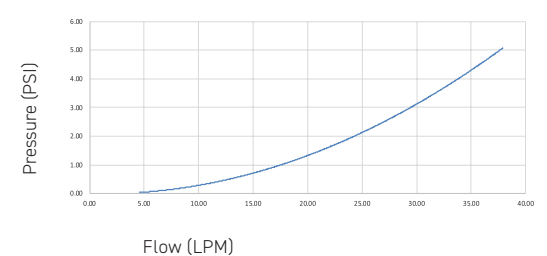
Water

UQD06



Water

UQD08



Liquid Cooling QDs

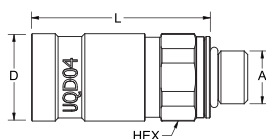
Nominal Diameter 02/04/06/08in

UQD Series

Sockets

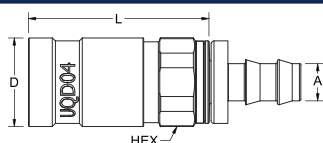


UQD Series Socket - Male Thread



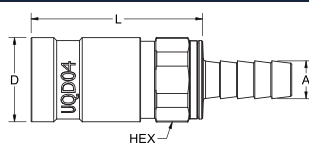
Body Size	Connection A	HEX mm	L mm	D mm	Part Number
02in	7/16-20 UNF-2A	15.9	36.2	18.5	UQD-121-4M0
04in	9/16-18 UNF-2A	22.2	48.0	23.4	UQD-251-6M0
04in	G 1/4-19-A BSPP	15.9	50.0	23.4	UQD-251-4MB
04in	G 3/8-19-A BSPP	22.2	49.9	23.4	UQD-251-6MB
06in	G 3/8-19-A BSPP	25.4	53.9	27.4	UQD-371-6MB
06in	3/4-16 UNF-2A	25.4	54.9	27.4	UQD-371-8M0
08in	7/8-14 UNF-2A	28.6	63.3	32.6	UQD-501-10M0
08in	1 1/16-12 UNF-2A	34.0	61.8	32.6	UQD-501-12M0

UQD 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 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

Liquid Cooling QDs

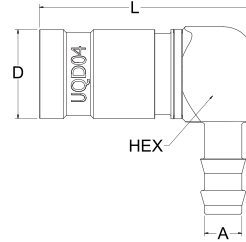
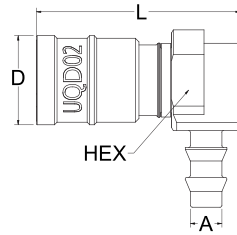
Nominal Diameter 02/04/06/08in

UQD Series

Sockets



UQD Series Couplers – 90 degree



Body Size	Connection A	HEX mm	L mm	D mm	Part Number
02in	1/4"	18.0	42.9	18.6	UQD-121-4CPL
04in	3/8"	21.7	56.6	23.4	UQD-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

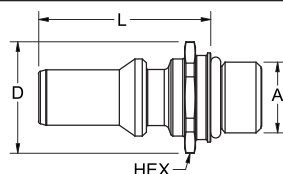
Nominal Diameter 02/04/06/08in

UQD Series

Plugs

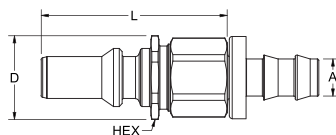


UQD Series Plug - Male Thread



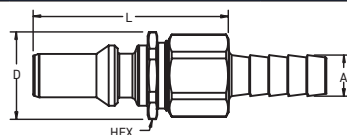
Body Size	Connection A	HEX mm	L mm	D mm	Part Number
02in	G 1/8-28-A BSPP	12.7	28.5	14.3	UQD-122-2MB
02in	G 1/4-19-A BSPP	14.3	29.0	18.5	UQD-122-4MB
02in	7/16-20-20 UNF-2A	14.3	26.7	15.5	UQD-122-4MO
04in	G 1/4-19-A BSPP	20.6	52.9	22.2	UQD-252-4MB
04in	G 3/8-19-A BSPP	25.4	35.0	28.6	UQD-252-6MB
04in	9/16-18 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 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 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

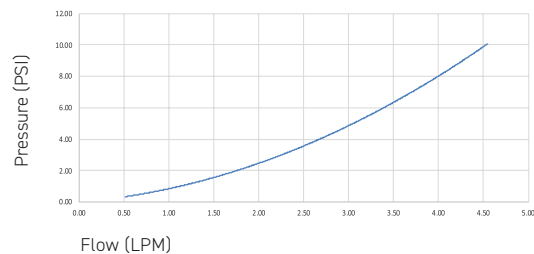
Specifications

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	UQD02: 0 psi=8 lbs; 14 psi=9 lbs; 100 psi=13 lbs UQD04: 0 psi=14 lbs; 14 psi=16 lbs; 100 psi=29 lbs UQD06: 0 psi=14 lbs; 14 psi=18 lbs; 100 psi=39 lbs UQD08: 0 psi=23 lbs; 14 psi=28 lbs; 65 psi=49 lbs	
CV Values	UQD02 Plug-Socket: 0.32 UQD04 Plug-Socket: 1.18 UQD06 Plug-Socket: 2.45 UQD08 Plug-Socket: 4.73	UQD02 Socket-Plug: 0.31 UQD04 Socket-Plug: 1.09 UQD06 Socket-Plug: 2.26 UQD08 Socket-Plug: 4.33
Spillage/Air Inclusion	UQD02: .003mL / .013mL UQD04: .005mL / .08mL UQD06: .007mL / .15mL UQD08: .005mL / .35mL	

Flow Diagrams

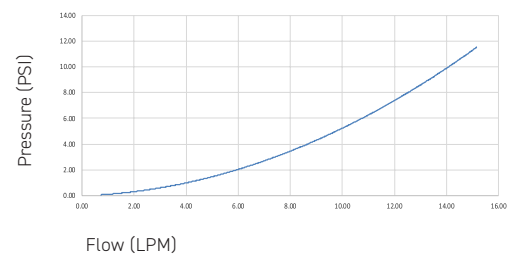
Water

UQDB02



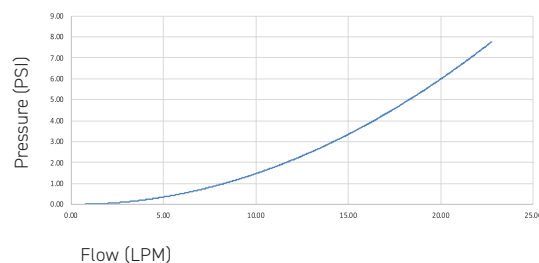
Water

UQDB04



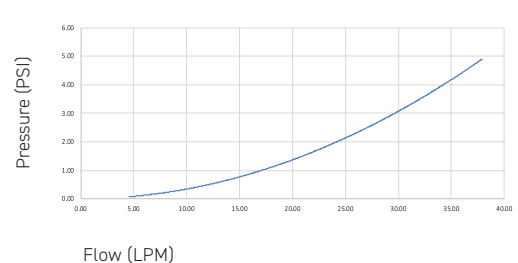
Water

UQDB06



Water

UQDB08



Liquid Cooling QDs

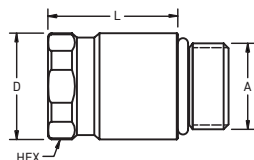
Nominal Diameter 02/04/06/08in

UQDB Series

Plugs and Sockets

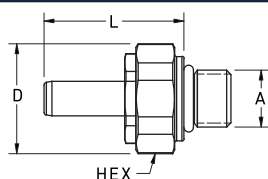


UQDB Series Socket



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-121-6M0
04in	3/4-16 UNF-2A	23.8	28.5	24.7	UQDB-251-8M0
06in	7/8-14 UNF-2A	27.0	31.8	28.3	UQDB-371-10M0
08in	1 1/16-12 UN-2A	28.0	35.5	31.2	UQDB-501-12M0

UQDB Series Plug - Hose Barb



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-122-4M0
04in	9/16-18 UNF-2A	24.0	35.4	25.3	UQDB-252-6M0
06in	3/4-16 UNF-2A	27.0	38.9	28.3	UQDB-372-8M0
08in	7/8-14 UNF-2A	28.0	42.9	31.2	UQDB-502-10M0

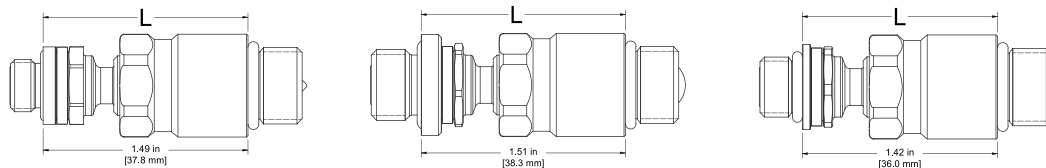
Liquid Cooling QDs

Nominal Diameter 02/04/06/08in

UQD Plug plus UQDB Female

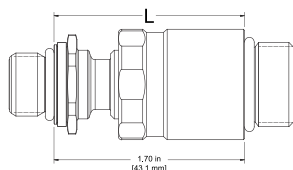


UQD02 Plug + UQDB02 Socket



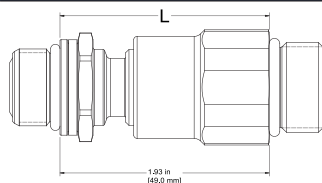
Body Size	Part Number	L mm
02in	UQDB-121-6M0 socket + UQD-122-2MB plug	37.8
02in	UQDB-121-6M0 socket + UQD-122-4MB plug	38.3
02in	UQDB-121-6M0 socket + UQD-122-4M0 plug	36.0

UQD04 Plug + UQDB04 Socket



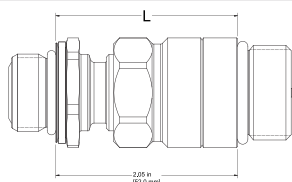
Body Size	Part Number	L mm
04in	UQDB-251-8M0 socket + UQD-252-6M0 plug	43.1

UQD06 Plug + UQDB06 Socket



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

UQD08 Plug + UQDB08 Socket



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

Liquid Cooling QDs
Nominal Diameter 02/04 in

NSG/NSP1 Series
Hand-mate, Manifold Connections



NSG



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 hands are required when connecting/disconnecting. NSP1 is a push-to-connect, single-hand operation.

Features

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

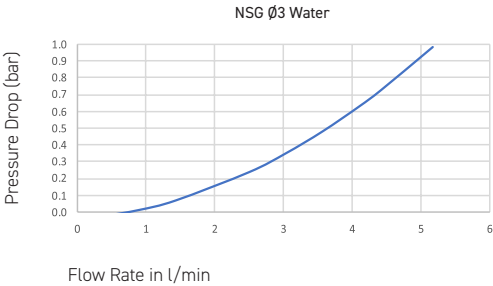
NSP1



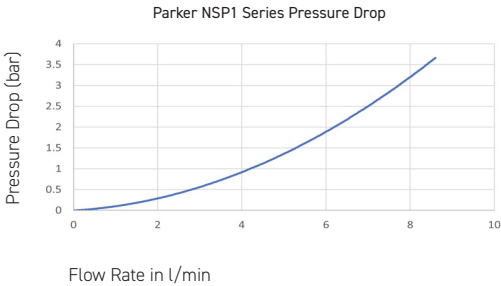
Specifications		
Max. Working Pressure	150 psi / 10.3 bar	
Rated Working Temperature	0°C to 70°C (Extended temperature range is possible, contact Parker for more information.)	
Storage / Shipping Temperature	-40°C to 120°C	
Material	Socket: Stainless Steel Plug: Stainless Steel Seals: EPDM	
Connect Force	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

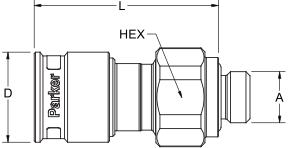
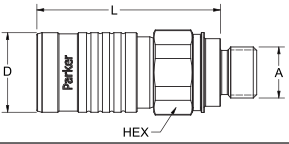
Nominal Diameter 02/04 in

NSG/NSP1 Series

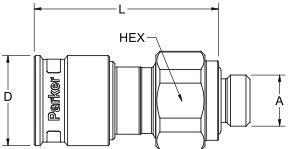
Sockets



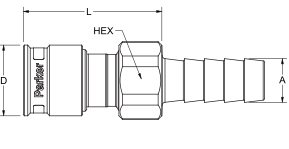
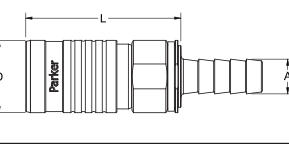
NSG/NSP1 Series Socket - Male Thread

	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

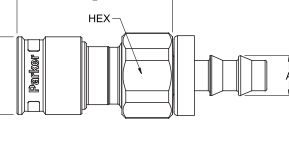
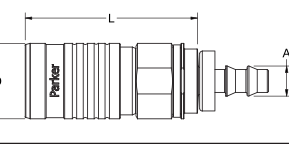
NSG/NSP1 Series Socket - Female Thread

	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" Hosebarb	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
	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
	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 5mm

ORV Series

ORv3 BMQC Specification



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

Features

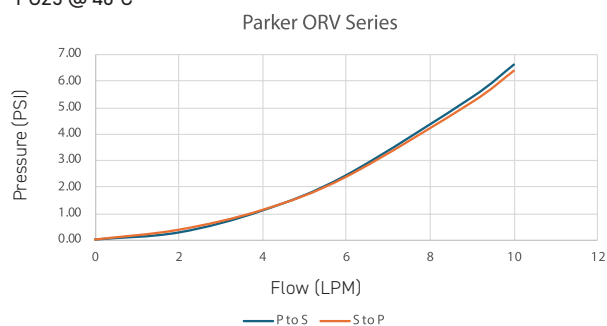
- High flow with low pressure drop
- No spillage during connection/disconnection
- Blind mate connection with high degrees of float to accommodate angular and radial misalignment
- Self-centering plug to ensure repeatable connection sequences

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



Liquid Cooling QDs

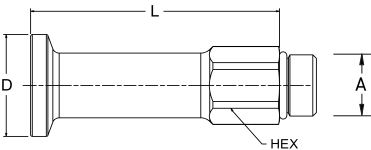
Nominal Diameter 5mm

ORV Series

Plugs and Sockets

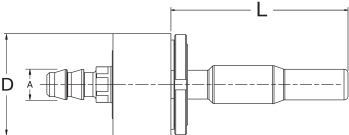


ORV Series Socket



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-251-8M0

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 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.

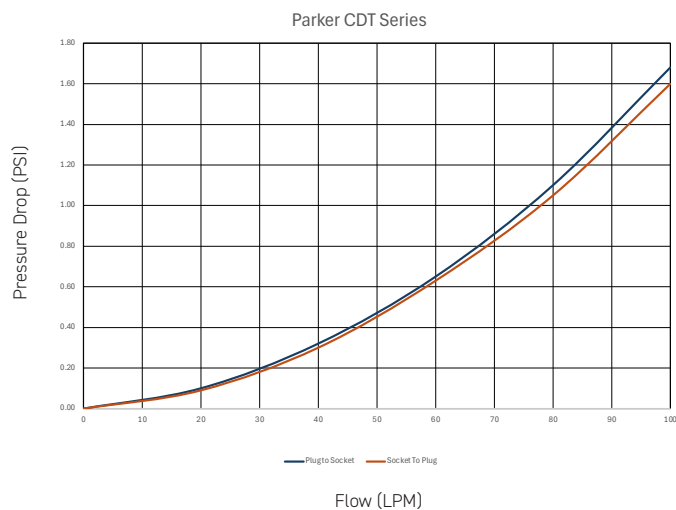
Features

- 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

Specifications

Static Design Pressure Maximum Static Pressure	50 psi / 3.4 bar 175 psi / 12 bar *maximum static working pressure with safety factor 4 to 1
Working Temperature	10°C to 70°C
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



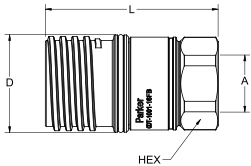


Liquid Cooling QDs
Nominal Diameter 25mm

CDT Series
Plugs and Sockets

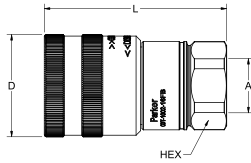


CDT Series Socket



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

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

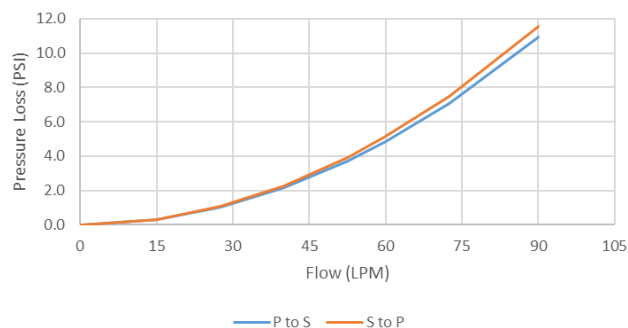
- Low spillage during connection and disconnection
- Low pressure drop
- Highly advanced internal design for cooling applications
- Suitable for main inlet/outlet connections for cooling circuits in a low profile design
- Allows for ± 1.5 mm misalignment at connection

Specifications

Static Design Pressure	75 psi / 5.17 bar
Maximum Static Pressure	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

Parker 3/4" CDB Series



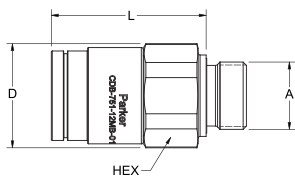
Liquid Cooling QDs

Nominal Diameter 19mm

CDB Series

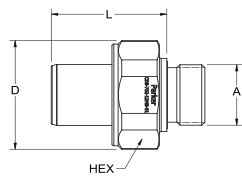
Plugs and Sockets

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



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