

# Universal Quick Disconnect UQD & UQDB

## Thermal management



### Application examples

- High-performance computers
- Data centers (AI)
- Internet switch

### Summary

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KICKER

# Universal Quick Disconnect, for safe systems and no downtime



## Fluids

- Glycol water
- Liquid cooling

## Key advantages



**Drip rate lower than OCP standard requirements**



**Safety of systems and operators**



**Easy operation**



**Adapted to high density systems**

## How Stäubli increase your performance

### Cleanliness and safety of your facilities

The Stäubli flat face couplings allow a perfect sealing, without dripping and air introduction, during the phases of connection/ disconnection.

### Perfectly adapted to high density systems

- Blade connection
- Individual connection of cold plates inside the blade (GPU/CPU)

### Easy and quick to handle

Stäubli opted for an automatic UQD to facilitate the connection phases.

## Choose Stäubli



**10 years** of experience in IT Cooling



**Global footprint**  
Many production facilities



**30 years** of experience in electronic liquid cooling



**The opportunity to spend less and contribute to a sustainable development program**

With Stäubli, you can rely on:

- the performance of your equipment
- reliability of long-term investments
- no workplace pollution




**Success story**



HAND MATE

# Technical characteristics

	UQD 02	UQD 04	UQD 06	UQD 08
Nominal diameter DN (mm)	03	06	07	10
Maximum allowable pressure PS (bar)	16			
Minimum and maximum allowable temperatures TS (°C)	-20 and +150			
Shut-off: double				



Patent pending

## Construction

### Type of seal

- Ethylene-Propylene (EPDM), JE code.

### Important!

The use and any contact of the Ethylene-Propylene (EPDM) seal with fluids of mineral origin (oil, fat... etc.) are not advised.

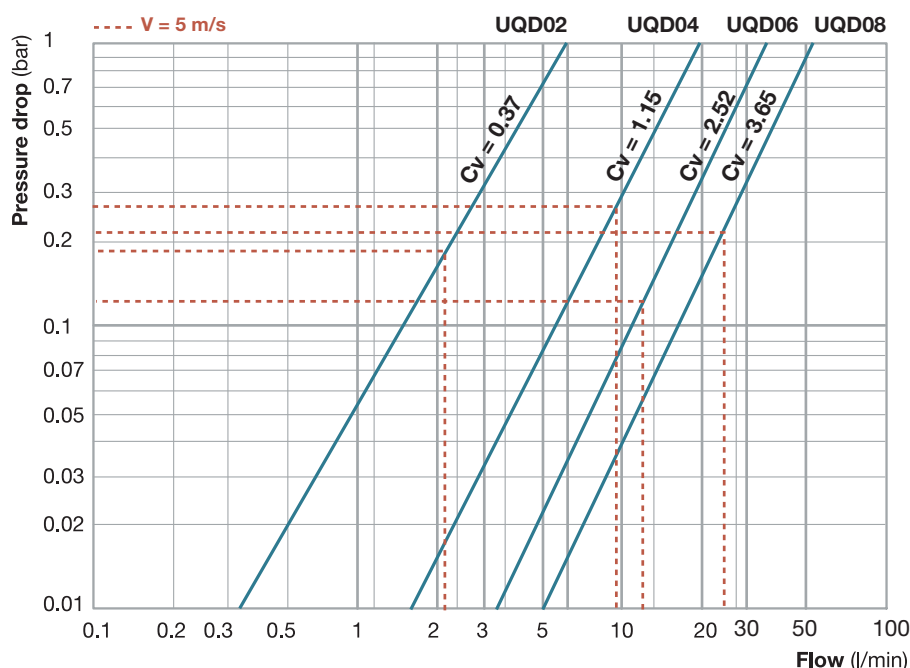
### Material

Stainless steel.

### Flow for a speed of 5 m/s :

- 2.12 l/min for UQD 02
- 8.48 l/min for UQD 04
- 11.55 l/min for UQD06
- 23.56 l/min for UQD08

## Hydraulic flow rate / pressure drop charts



### Test conditions

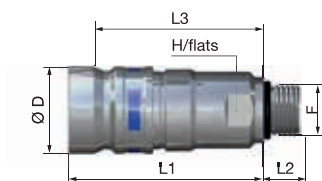
- Fluid: water
- Density: 998 kg/m<sup>3</sup> ; viscosity: 1,08 cSt
- Direction of flow: socket → plug



HAND MATE

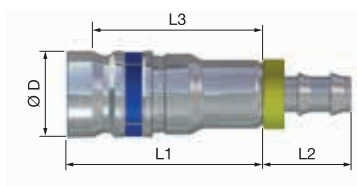
# Part-numbers

Socket,  
UN male thread



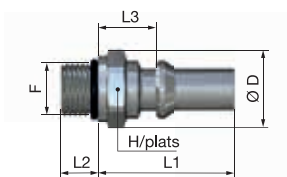
Fitting F	Dimensions (mm)					Part numbers
	Ø D	L1	L2	L3	H/flats	
UNF 7/16-20"	18.5	40.8	9.1	35.7	15	UQD02.1411/UN/JE/KR
						UQD02.1411/UN/JE/KB
UNF 9/16-18"	24	54.8	10	48.7	19	UQD04.1414/UN/JE/KR
						UQD04.1414/UN/JE/KB
UNF 3/4-16"	29.5	58.9	11.1	52.1	24	UQD06.1419/UN/JE/KR
						UQD06.1419/UN/JE/KB
UNF 7/8-14"	32.5	63.9	12.7	56.8	27	UQD08.1422/UN/JE/KR
						UQD08.1422/UN/JE/KB

Socket  
for hose



Fitting F	Dimensions (mm)					Part numbers
	Ø D	L1	L2	L3	H/flats	
Hose 1/4"	18.5	40.5	21	35.4	-	UQD02.1806/CN/JE/KR
						UQD02.1806/CN/JE/KB
Hose 3/8"	24	54.3	24.5	47.7	-	UQD04.1810/CN/JE/KR
						UQD04.1810/CN/JE/KB
Hose 1/2"	29.5	60.4	29	53.6	-	UQD06.1813/CN/JE/KR
						UQD06.1813/CN/JE/KB
Hose 3/4"	32.5	63.9	36.5	56.8	-	UQD08.1816/CN/JE/KR
						UQD08.1816/CN/JE/KB

Plug,  
UN male thread



Fitting F	Dimensions (mm)					Part numbers
	Ø D	L1	L2	L3	H/flats	
UNF 7/16-20"	16.5	28	9.1	12.5	15	UQD02.7411/UN/JE/KR
						UQD02.7411/UN/JE/KB
UNF 9/16-18"	21	37.5	10	16	19	UQD04.7414/UN/JE/KR
						UQD04.7414/UN/JE/KB
UNF 3/4-16"	26.5	40.5	11.1	15.5	24	UQD06.7419/UN/JE/KR
						UQD06.7419/UN/JE/KB
UNF 7/8-14"	30	46	12.7	17	27	UQD08.7422/UN/JE/KR
						UQD08.7422/UN/JE/KB

Visual marking

Blue /KB or red /KR marking.

Dimension in connected position

Total length: L3 socket + L3 plug.



BLIND MATE

# Technical characteristics

	UQDB 04
Nominal diameter DN (mm)	06
Maximum allowable pressure PS (bar)	16
Minimum and maximum allowable temperatures TS (°C)	-20 and +100
Maximum misalignment	0,8 mm



Patent pending

## Construction

### Type of seal

- Ethylene-Propylene (EPDM), JE code.

### Important!

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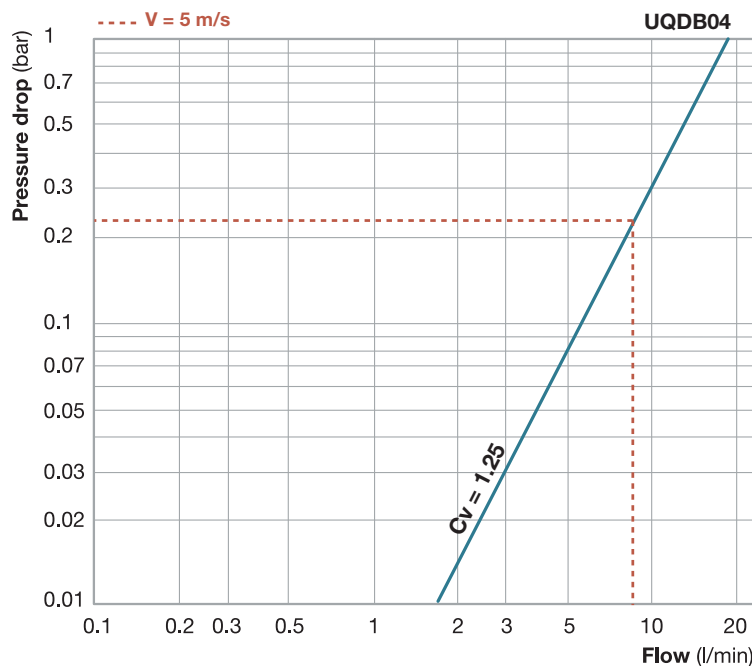
### Material

Stainless steel.

### Flow for a speed of 5 m/s :

- 8.48 l/min for UQDB 04

## Hydraulic flow rate / pressure drop charts



### Test conditions

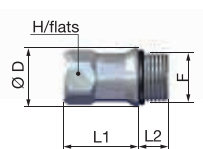
- Fluid: water
- Density: 998 kg/m<sup>3</sup> ; viscosity: 1,08 cSt
- Direction of flow: socket → plug



BLIND MATE

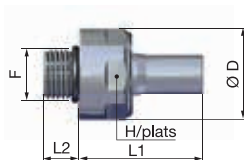
# Part-numbers

Socket,  
UN male thread



Fitting F	Dimensions (mm)				Part numbers
	Ø D	L1	L2	H/flats	
UNF 3/4-16"	22.3	28.5	11.2	19	UQDB04.2419/UN/JE

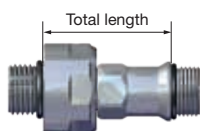
Plug,  
UN male thread



Fitting F	Dimensions (mm)				Part numbers
	Ø D	L1	L2	H/flats	
UNF 9/16-18"	25.4	35.4	10	24	UQDB04.5414/UN/JE

Dimension in connected position

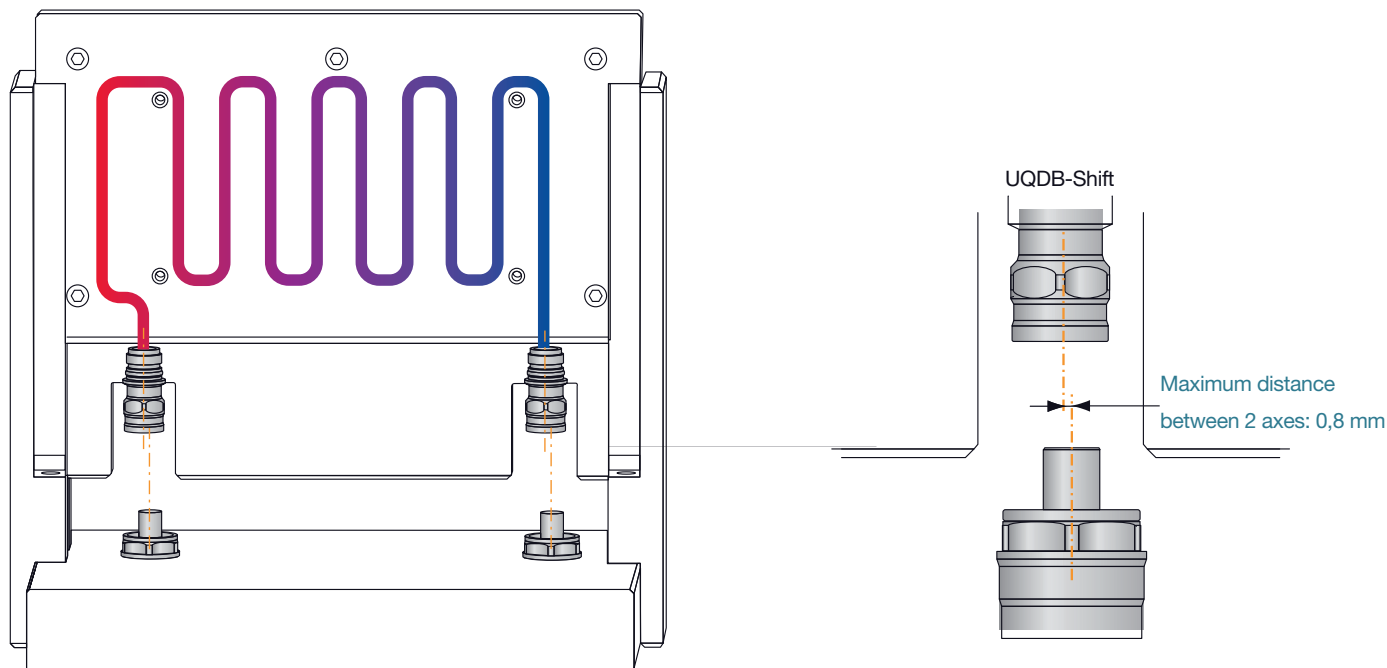
Total length: 44.6



BLIND MATE

# Displacement technology

A solution suitable for guiding systems with a maximum misalignment of 3 mm.



 Success story





● Stäubli Units    ○ Representatives/Agents

# Global presence of the Stäubli Group

[www.staubli.com](http://www.staubli.com)