



## QUICK DISCONNECTS

### DCX direct liquid cooling system

#### OVERVIEW

The use of liquid cooling to mitigate heat generated by electronics require reliable connectors that will not fail and provide best possible flow. One of the critical components in liquid cooling systems is the quick disconnect coupling. We have taken into consideration 5 factors:

- **ROBUST DESIGN AND CONSTRUCTION**
- **DRY DISCONNECT CAPABILITY**
- **EASE OF USE**
- **RESILIENT SEALS**
- **MATERIALS COMPATIBILITY**

This is why DCX is using best in class components: CPC LQ couplings, CEJN thermal control quick couplings and PTL (Push To Lock) module level ports. All this couplings give user ability to create own cooling **LOOP™** and reconfigure if needed for future applications.

#### CPC QUICK DISCONNECTS:

- Color-coded thumb latch - simple, intuitive one-handed operation with visual difference in cooling lines.
- High flow capacity 1.00 gal/min.
- Redundant multilobed seals - Protection against leakage and ability to withstand extended periods of connection.
- Provides ultra-reliable, dripless connections and disconnections that protect valuable electronics.
- Designed specifically for liquid cooling applications.
- Clear connection/disconnection point, which makes it easier to operate.

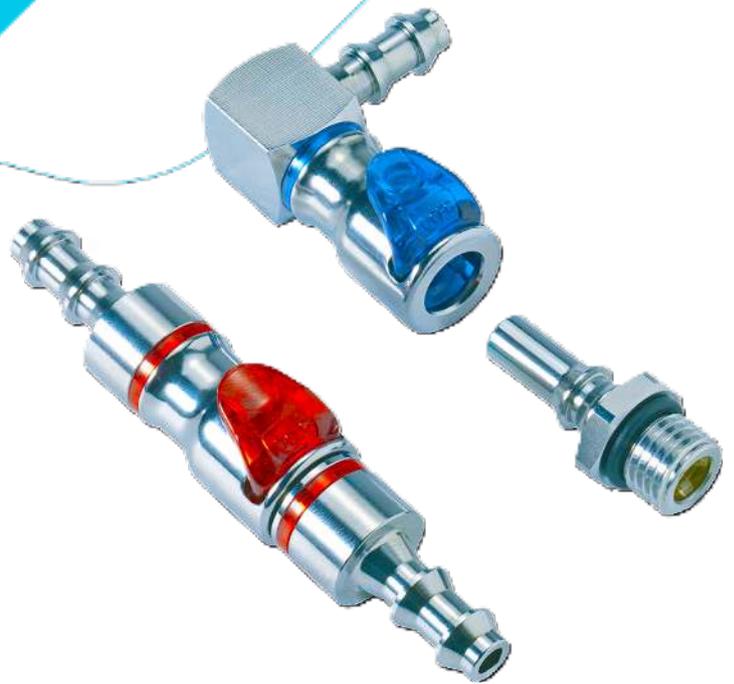
#### CEJN THERMAL CONTROL DRYBREAK COUPLING:

- Designed for liquid cooling.
- Safety lock feature to prevent unintentional disconnection.
- The non-drip design ensures zero spillage.
- One-hand-operated connector with compact dimensions.
- Robust stainless steel quick connect coupling adaptable to virtually all thermal control applications.
- The colour-coding feature helps to separate incoming cool lines from outgoing hot lines.

#### PTL (PUSH TO LOCK) QUICK DISCONNECTS:

- Secure connections of modules within the **LOOP™**
- DDLC module may be used for virtually any rack and device, providing lifespan of this component up to 10 years.
- User may disconnect and reuse components in different device.
- Working pressure up to 290 psi, working temperature from -20°C to +80°C

## Next Gen Liquid Cooling



**ONE HAND SERVICEABLE** - with easy to use, best in industry CPC Click To Connect and CEJN dry break quick couplings, one can finally connect & disconnect any device using one hand.

**INDUSTRY'S BEST CEJN AND CPC** quick disconnect dry-break couplings are most efficient components available worldwide. We wanted easy to use, most reliable and high flow couplings - this is why we decided to work with the most renowned connector manufacturers.

**PTL (PUSH TO LOCK) QUICK DISCONNECTS.** First time in liquid cooling industry. You will never have to order a specific loop for a specific server set-up. You can order components, create your own loops and rearrange them when needed. If you move to a next generation server - DDLC modules with PTL ports allow you to expand your infrastructure easily.

**OPEN SOLUTION - NO LOCK IN** You will never have to order a specific loop for a specific server set-up. You can order components, create your own loops and rearrange them when needed. If you move to a next generation server - DDLC modules allow you to expand your infrastructure easily.

**ERGONOMIC & EASE TO USE** ergonomic look, easy to grip, clear connection/disconnection point making it easy to connect and disconnect the couplings when needed.



## COMPATIBILITY & FLUID

Compatible with most water / glycol based coolants. Carefully selected to assure material compatibility of coupling housings, seals, valves and tubing with proprietary coolants. Our metal couplings are designed specifically for liquid cooling to keep users safe from potential long term use effects: degradation, electrolysis and corrosion

## CPC DRY BREAK QUICK DISCONNECTS SPECIFICATIONS

Pressure Vacuum to 200 psi, 13.8 bar

Temperature 0°F to 240°F (-17°C to 115°C)

Maximum Flow 1.00 gal/min at 0 – 100 psi  
at Disconnect 0.25 gal/min at 101 – 200 ps

**Main Components:** Chrome-plated brass

**Valves and Thumb latch:** Polysulfone

Materials **Valve Springs (wetted):** Stainless steel

**External springs and pin:** Stainless steel

**Seals:** EPDM

Color Chrome with Cool Blue or Warm Red

Tubing Sizes ¼" ID (6.4mm ID)

Lubricants Krytox® PFPE

Spillage <0.015 cc per disconnect at 0 psi  
<0.063 cc per disconnect rated at 200 psi

Inclusion <0.063 cc per connect

## CEJN THERMAL CONTROL COUPLINGS SPECIFICATIONS

Nominal flow diameter: 14 mm (9/16")

Water flow (double shut-off): 97.8 l/min (21.5 GPM UK)

Max. working pressure: 20 bar (290 PSI)

Min. burst pressure: 80 bar (1160 PSI)

Temperature range: -20°C — +150°C (-4°F — +302°F)

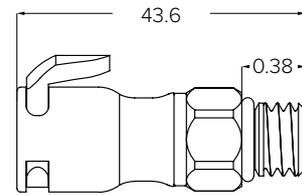
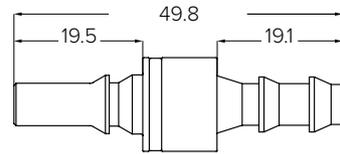
Material coupling: Stainless steel, AISI 316

Material nipple: Stainless steel, AISI 316

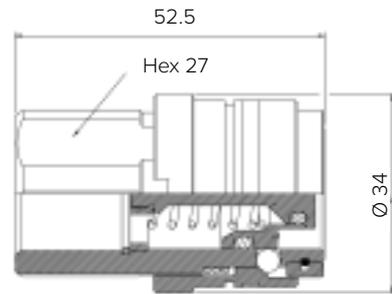
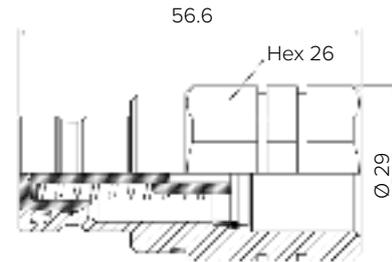
Kv (double shut-off): 5.87

Cv (double shut-off): 6.78

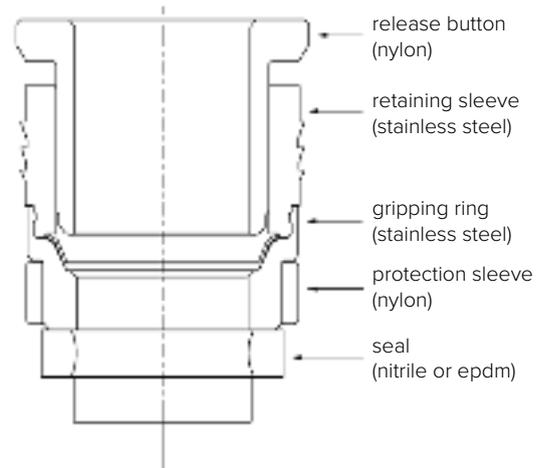
Comment: Also available in single shut-off or straight through version.



CPC dry break quick disconnects



CEJN thermal control dry break couplings



PTL (push to lock) ports

### DISCLAIMER:

Maximum performance specifications can be achieved only in certain operating conditions. Performance will vary depending on the installation. These specifications should not be taken as a warranty. In the interest of product improvement, these specifications may be subject to change from time to time without notice. Please consult your sales representative for details.