

ADVANCING THERMAL MANAGEMENT WITH PARKER'S MQDB SERIES QUICK DISCONNECTS

As a leader in thermal management solutions, **Parker Quick Coupling Division (QCD)** continues to strengthen liquid cooling innovation for the data center industry. Leveraging decades of engineering expertise, Parker's **MQDB Series** (Multi Quick Disconnect Blind-mate) are designed for liquid cooling applications in data centers, servers and supercomputers.

Parker's MQDB Series

Parker's MQDB Series (Multi Quick Disconnect Blind-mate) are compact quick-disconnect couplings engineered for blind-mate connections inside server trays and racks. Designed for liquid cooling in high-density AI data centers and supercomputers, MQDB connectors support leak-free performance and high flow rates to protect critical components.

Developed to comply with NVIDIA specifications, MQDB plugs and sockets help enable consistent interoperability and interchangeability with other approved MQDB manufacturers. The coupling's automatic alignment feature accommodates minor radial misalignment during engagement, helping ensure reliable connections in tight, high-density assemblies.

Built for fixed, rack-integrated cooling lines, Parker's MQDB design eliminates the need for a manual locking ring by leveraging the structural mounting of the blind-mate system. Ideal for in-tray and inner-manifold rack connections where visibility is limited.

MQDB Series Features

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



Part Number	Coupling Half	Connection Thread Size
MQDB-121-4MO	Socket	7/16-20 UNF
MQDB-181-4MB	Socket	G 1/4-19 BSPP
MQDB-251-6MB	Socket	G 3/8-19 BSPP
MQDB1-251-6MB	Socket	G 3/8-19 BSPP
MQDB-122-001	Plug	Custom
MQDB-182-001	Plug	Custom
MQDB-252-001	Plug	Custom

Pressure Rating

Max Operating Pressure: 100 psi
Safety Factor: 3 to 1

Working Temperature

Rated Working Temperature: 17°C to 65°C
Storage / Shipping Temperature: -40°C to 65°C

Material

Coupling: Stainless Steel
Plug: Stainless Steel
Seals: EPDM

Connect Force

MQDB02 - 47.7 N MQDB04 - 54.0 N
MQDB03 - 47.9 N MQDB1 - 54.7 N

CV Values

MQDB02 > 0.3 MQDB04 > 1.0
MQDB03 > 0.6 MQDB1 > 1.0

Spillage/Air Inclusion

MQDB02 - 0.0004 ml MQDB04 - 0.0007 ml
MQDB03 - 0.0006 ml MQDB1 - 0.0007 ml

MQDB Series Markets & Applications

- Information Technology
- Electronics
- Data Centers
- Supercomputers
- Liquid cooling
- Servers
- Rackable Server Systems

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