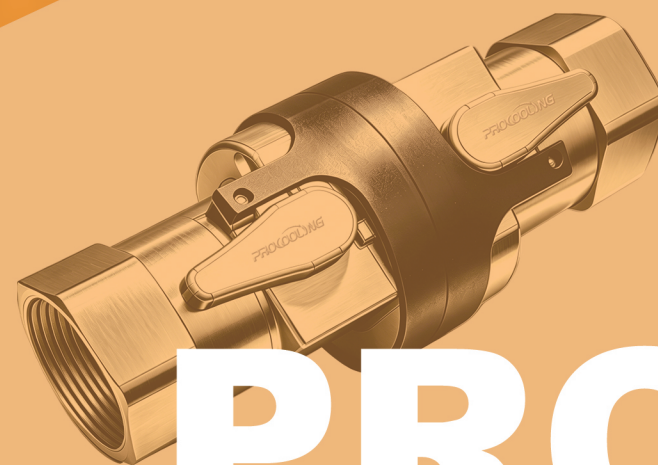




COOLING



山东省日照市市北经济开发区零碳智能产业园036号
No. 036, Zero-Carbon Intelligent Industry Park,
Shibei Economic Development Zone, Rizhao City,
Shandong Province

0532-55588530
www.procooling.cn
info@procooling.cn

优冷精密科技（日照）有限公司

PROCOOLING PRECISION TECHNOLOGY (RIZHAO) CO., LTD

优冷精密科技（日照）有限公司

PROCOOLING PRECISION TECHNOLOGY (RIZHAO) CO., LTD

青橡集团 QINGFLEX GROUP

PROCOOLING

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Enterprise introduction 企业简介



- ★研发 R&D
- ★工厂 FACTORY
- ★销售 SALE



- 中国青岛：山东省青岛市黄岛区大场镇大营路16号
- 中国日照：山东省日照市市北经济开发区商河路东首
- 中国广州：广东省佛山市南海区罗村联合工业区塍新大道9号A9
- 美国：7001 CORPORATE DRIVE, SUITE 341 HOUSTON,TX USA 77036
- 新加坡：7500A BEACH ROAD,#04-307,THE PLAZA,SINGAPORE 19 9591
- 马耳他：TA GARDA BLK A APT 5, TRIQ I ISPARVIER, GHAXAQ MALTA
- 泰国：泰国罗勇府立盛罗勇工业园区



优冷精密科技（日照）有限公司是一家专注高端数据中心精密液冷元器件研发与智能制造的专精特新企业。公司坐落于日照市北经济技术开发区，可为海内外客户提供全链条一体化研发、生产及销售配套服务。

公司由青岛青橡橡胶有限公司全资控股，是其核心下属企业。母公司青岛青橡橡胶有限公司创立于 2008 年，坐落于青岛西海岸新区，为国家级高新技术企业，同时获评青岛市企业技术中心。集团拥有十余年流体输送软管专业制造经验，建有占地 95000 平方米的生产基地，员工规模超 500 人，并配套自建高标准胶管研发检测中心。

集团已与北京科技大学、青岛科技大学开展产学研合作，联合研发无卤液冷软管产品；同时在马耳他设立欧洲技术中心，全面服务全球客户。

Procooling Precision Technology (Rizhao) Co., Ltd. is a specialized, sophisticated and innovative enterprise focused on the R&D and intelligent manufacturing of precision liquid cooling components for high-end data centers. Located in the Northern Economic & Technological Development Zone of Rizhao, the company provides full-chain integrated R&D, production and sales services to clients both at home and overseas.

It operates as a core subsidiary fully backed by Qingdao Qingflex Hose Factory (trading as QINGFLEX), a national high-tech enterprise and certified Qingdao Municipal Enterprise Technology Center founded in 2008 and situated in Qingdao West Coast New District. Boasting more than a decade of professional experience in fluid transfer hose manufacturing, QINGFLEX Group runs a 95,000 m² production base with a workforce of over 500 employees, alongside an in-house high-standard rubber hose R&D and testing center.

The group has collaborated with the University of Science and Technology Beijing and Qingdao University of Science and Technology to jointly develop halogen-free liquid cooling hoses, and set up a European Technology Center in Malta to cater to global clients.

公司全线配置数十台日本精密走心机、日本数控加工中心，基恩士激光打标机、激光焊接机、高精度清洗机，配套爆破试验台、脉冲试验台、流阻性能试验台、连接插拔试验机、清洁度测试机、气密测试机、氦检仪、三丰轮廓仪、东京精密三坐标测量仪(CMM)等全套高精度检测设备；长期与日本Toyokawa深度技术共建，联合完成三大核心产品线开发：

Our entire production line is equipped with dozens of Japanese precision Swiss-type lathes, Japanese CNC machining centers, KEYENCE laser marking machines, laser welding machines, and high-precision cleaning systems. It is also supported by a complete set of high-accuracy testing and inspection equipment, including burst test benches, pulse test benches, flow resistance performance test benches, insertion/withdrawal force testers, cleanliness testers, air tightness testers, helium leak detectors, Mitutoyo contour measuring instruments, Tokyo Seimitsu coordinate measuring machines (CMM), and more. We maintain long-term, in-depth technical cooperation with Toyokawa (Japan), and have jointly developed three core product lines.

1.PCL-FD干断式互锁球阀

全通流道、双重安全锁止、零泄漏密封、支持带压启闭；阀体不锈钢基材，阀座适配 EPDM/FKM 密封，流阻小、耐温区间宽，适配大功率液冷回路通断管控。

Dry Disconnect Interlock Coupling

Full flow, dual safety lock, zero leakage – works under pressure. Stainless steel body with EPDM/FKM Seals. Low pressure drop, wide temperature range. Perfect for high-power liquid cooling circuits.



2.PCL-U/PCL-M 快换接头

符合OCP标准，对标国际一线流体连接标准，全通流结构，双互锁安全机制，断开残液量极低，分常规低压款、带压热插拔高功率散热两大型号，适配数据中心、超算、电力变流器、工业制冷机组。



High-Flow Liquid Cooling Quick Couplings MQD、UQD

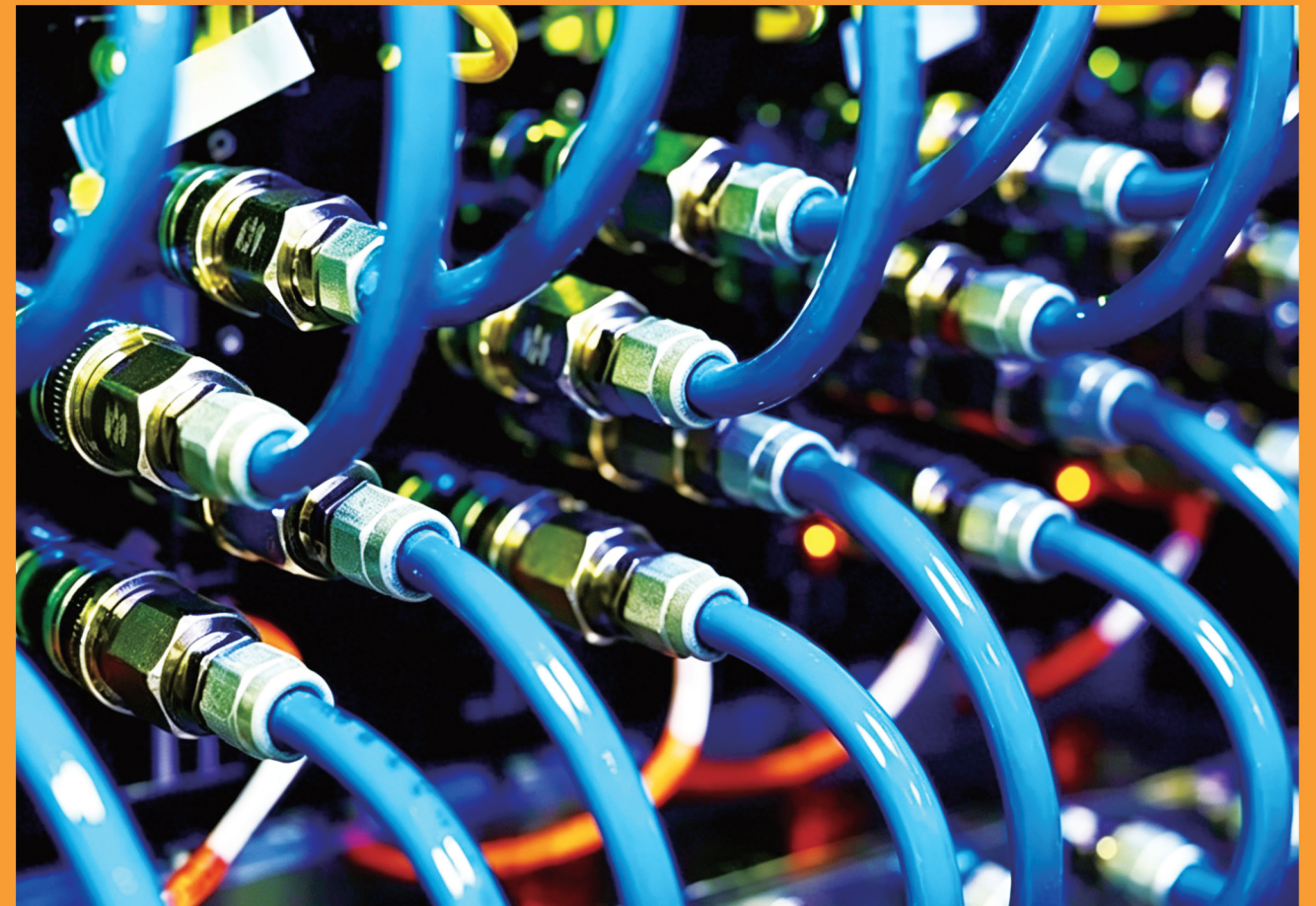
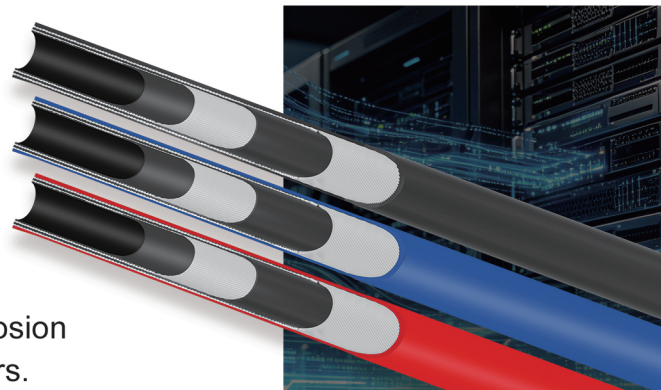
OCP-compliant couplings adopt full-flow & dual interlock design with minimal residual spillage. Low-pressure & pressurized hot-swap types suit data centers, supercomputers and power equipment.

3.Procooling 优冷无卤素液冷胶管

采用无卤、无锌无硫、过氧化固化 EPDM 原料，达 UL94 V-0 阻燃等级；柔韧性强、耐弯折抗腐蚀，多尺寸多颜色可选，安全输送无污染冷却液，适配高密度算力液冷系统。

Procooling Halogen-Free Liquid Cooling Hoses

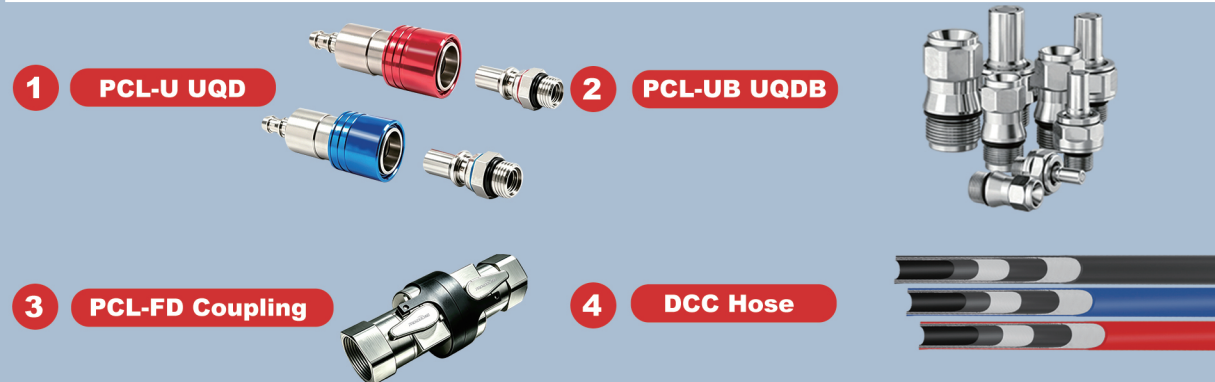
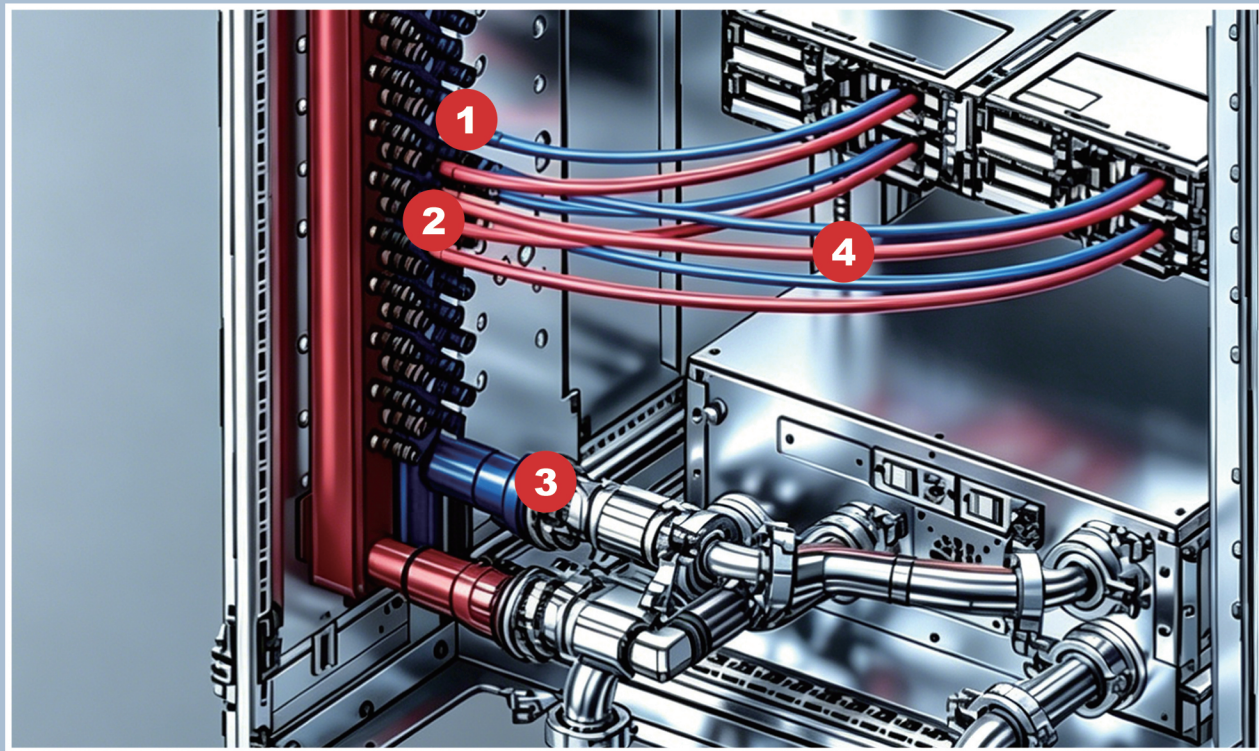
Manufactured from halogen-free, zinc-free, sulfur-free, peroxide-cured EPDM, rated UL94 V-0 flame retardant. Features outstanding flexibility, kink resistance and corrosion resistance, available in multiple sizes and colors. Safely delivers contaminant-free coolant for high-density computing liquid cooling systems.



企业坚守**创新为核心、精工为根基**，所有液冷部件高效稳定、节能环保；整套流体输送连接方案广泛应用于高密度数据中心、超算设备、电子温控、冷水机组、化工制药冷却、电力新能源换热场景，以可靠品质助力数字基础设施绿色低碳发展。

Upholding the principle of **Innovation as core, Precision engineering as foundation**, we deliver energy-saving, eco-friendly and highly stable liquid cooling components. Our complete fluid transfer & connection solutions are widely deployed in high-density data centers, supercomputers, electronic thermal control, chillers, chemical & pharmaceutical cooling, new energy power and heat exchange systems. We support the low-carbon green development of digital infrastructure with consistent, premium product quality.





产品编码规则 Product Part Number:

示例 Code Example:

PCL-U-04-M-G1/4"AG SS

1 2 3 4 5 6

- | | |
|---------|--|
| 1 PCL-U | 产品代码 Product code |
| 2 04 | 规格 Size |
| 3 M | 接头类型: M = 公头, F = 母头 Connector : M=Male, F=Female |
| 4 G1/8" | 接口连接方式 End connection type
G1/8"= 螺纹连接; FL = 法兰连接; 12 = 软管尾管连接 G1/8"=Thread connection;
FL=Flange connection; 12=Hose barb tail connection |
| 5 AG | 螺纹形式: AG = 外螺纹, IG = 内螺纹 Thread type: AG=External male thread,
IG=Internal female thread |
| 6 SS | 本体材质: SS = 不锈钢, AL = 铝合金 Body material: SS=Stainless steel,
AL=Aluminum alloy |



PCL-U UQD
通用型无泄漏快速接头
Universal Quick Disconnect
Coupling



PCL-UB UQDB
盲插快换接头
Blind plug quick change Coupling



PCL-M MQD
通用型无泄漏快速接头
Universal Quick Disconnect
Coupling



干断式互锁球阀

按照OCP标准设计制造

Dry Disconnect Interlock FD Coupling
Manufactured to OCP Standards



一种具备锁定功能的高性能阀门，专为需要确保阀门在特定状态（全开或全关）下不会因振动、误触等原因而意外改变位置的关键应用而设计。在液冷系统中，它通常用作关键节点的控制阀或维护隔离阀。

核心功能：通过内置的锁定机构，将阀门手柄牢固地固定在开启或关闭位置，只有在执行特定解锁操作后才能转动手柄。

High-performance ball valve with locking function, engineered for critical applications that demand the ball valve remains fixed at a specific position (fully open or fully closed) and prevents unintended position shifts caused by vibration, accidental contact or other external factors. Within liquid cooling systems, it is commonly deployed as control ball valves at key junctions or isolation valves for maintenance purposes.

Core Function: A built-in locking mechanism securely holds the valve handle in the open or closed position, ensuring the handle can only be turned after a specific unlocking procedure is performed.

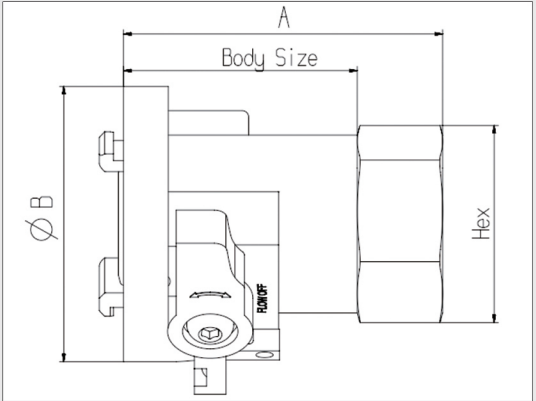


技术特点：Technical Features

- 防止误操作：**有效避免无意触碰导致阀门关闭，保障冷却回路持续畅通。
Prevention of accidental operation: Effectively avoids valve closure triggered by unintended contact, ensuring continuous flow of the cooling circuit.
- 抗振动性强：**在高振动环境下确保阀门状态稳定，不会因机械振动而位移。
Excellent vibration resistance: Maintains stable valve position under high-vibration operating conditions; no positional displacement induced by mechanical vibration.
- 安全性高：**维护时可关闭并锁定阀门，形成可靠物理隔离，确保人员与设备安全。
Superior operational safety: The valve can be closed and locked during maintenance to establish robust physical isolation, safeguarding personnel and equipment safety.
- 明确的状态指示：**锁定状态即是清晰可靠的视觉确认，表明阀门处于预设安全位置。
Clear position indication: The locked position serves as a distinct, reliable visual cue to verify the valve is held at its pre-set safe position.
- 对称的设计：**两边完全相同，减少种类，互换性高，消除公母头配对困扰。
Symmetrical identical end design: Fully identical construction on both ends reduces component variants and delivers high interchangeability, eliminating mating confusion between male and female connectors.

产品尺寸：Size Specifications

Size	Connection types	主体尺寸 Body size	A		B		Hex	
			mm	in	mm	in	mm	in
1"	宝塔型 Hose barb	51.17	86.01	3.39	64.45	2.54	/	/
	外螺纹 Male threaded	51.17	97.53	3.84	64.45	2.54	41	1.61
	内螺纹 Female threaded	51.17	97.53	3.84	64.45	2.54	41	1.61
	卡盘型 Sanitary Flange	51.17	81.12	3.19	64.45	2.54	/	/
2"	宝塔型 Hose barb	51.17	109	4.29	101	3.98	/	/
	外螺纹 Male threaded	51.17	114.5	4.51	101	3.98	69.6	2.74
	内螺纹 Female threaded	51.17	98.6	3.88	101	3.98	69.6	2.74
	卡盘型 Sanitary Flange	51.17	96.5	3.80	101	3.98	/	/



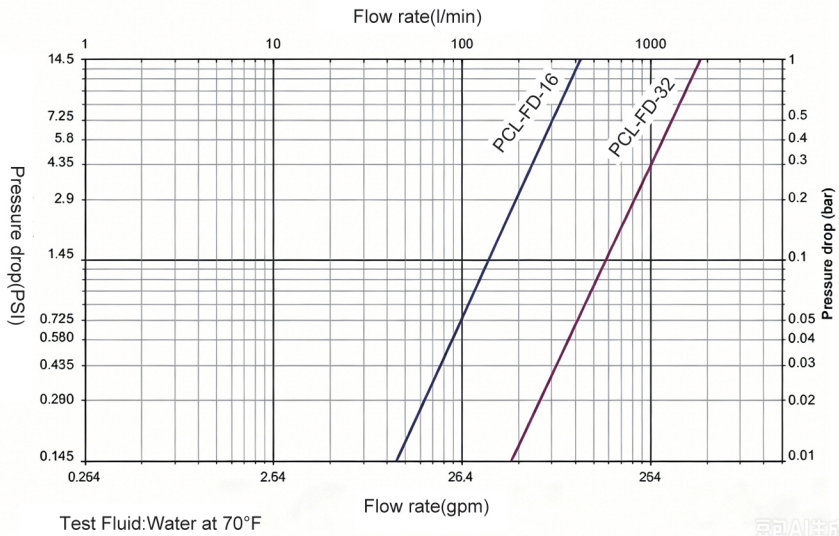
干断式互锁球阀 Dry Disconnect Interlock Coupling PCL-FD



双重安全互锁，全流通道实现零泄漏、低压降、大流量，适配数据中心、储能、超算及工业温控液冷管路连接。
Dual safety interlock, full-flow, zero leakage, low pressure drop. Applied to liquid cooling connections for data centers, energy storage, supercomputing and industrial thermal control.

- **对称结构:** 两端部件通用，无需区分公母，简化安装与备件管理，降低运维成本。
Symmetrical Design: Identical coupling halves without male/female distinction, simplifying installation and spare parts management to cut costs.
- **双重互锁:** 阀门仅在接头完全对接后开启，断开前阀门必须闭合，彻底杜绝渗漏风险。
Dual Safety Interlock: Valves open only when fully mated and stay closed before disconnection, effectively preventing fluid leakage.
- **全通流 低压降:** 直通流道设计，流通效率高，减少系统能耗，满足大功率设备散热需求。
Full Flow & Low Pressure Drop: Straight flow channel ensures high flow efficiency and low pressure drop, reducing system power consumption for high-power heat dissipation.
- **优质材质:** 不锈钢主体耐腐蚀，标配 EPDM 密封，可选 FKM 密封，适配多种冷却液与工况。
Wide Compatibility: Corrosion-resistant stainless steel body. Standard EPDM seal and optional FKM seal fit various coolants and working conditions.
- 支持 NPT、BSP 螺纹、软管倒钩、卫生法兰等接口，亦可按需定制。
Available with NPT, BSP threads, hose barbs, sanitary flanges and other connections. Custom ports are supported.

型号 Size	尺寸 Size	最大工作压力MAX .W.P.						最小爆破压力MIN.B.P.						额定 流量 Rated Flow*		Cv值 Cv Value	流体 溢出 Fluid Loss
		连接后 Connected		断开后两端 Disconnected half				连接后 Connected		断开后两端 Disconnected half							
	inch	Bar	psi	Bar	psi	Bar	psi	Bar	psi	Bar	psi	Bar	psi	lpm	gpm	-	cc
PCL-FD-16	1”	10	150	10	150	10	150	20	300	20	300	20	300	189	50	30	5.0
PCL-FD-32	2”	10	150	10	150	10	150	20	300	20	300	20	300	800	211	127	12



机架内部快换解决方案 Inner Rack Solution UQD

PCL-U系列—手插快换
PCL-U series—hand plug quick change



UQD
通用型无泄漏快速接头
Universal Quick Disconnect Coupling

专为高流量、零泄漏场景设计，UQD接头非常适用于机架内部小口径管路的液冷应用场景。
Designed for high flow rate and no spillage, the UQD coupling is perfect for in-rack applications with smaller hose lines.



- **材质:** 不锈钢
Material: stainless steel
- **密封:** EPDM 密封
Seal: EPDM seal
- **单手连接或断开，操作便捷**
Connect or disconnect with one hand, easy to operate
- **Cv 值高**，高流量、低压降（优于 OCP 规范 60%）
High Cv value, high flow rate, low pressure drop (60% better than OCP specification)
- **连接力小**，轻松连接
Small connection force, easy to plug and unplug
- **色带清晰**，阴接头有色套筒、阳接头有色密封圈，防误接
The ribbon is clear, the female connector has a colored sleeve, and the male connector has a colored sealing ring to prevent misconnection.
- 100% 氦气检测
100% Helium Detected
- **规格:** UQD02、UQD04、UQD06、UQD08
Specifications: UQD02, UQD04, UQD06, UQD08

型号 Size	主体尺寸 Body Size	标称流量 直径 Nominal Flow Dia	最大工作压力MAX .W.P.						最小爆破压力MIN.B.P.						额定 流量 Rated Flow*	Cv值 Cv Value	空气 裹入 Air Inclusion	流体 溢出 Fluid Loss	
			连接后 Connected		阴接头 Socket / Female Half		阳接头 Plug / Male Half		连接后 Connected		阴接头 Socket / Female Half		阳接头 Plug / Male Half						
	inch	mm	Bar	psi	Bar	psi	Bar	psi	Bar	psi	Bar	psi	Bar	psi	lpm	gpm	-	Max.	Max.
PCL-U-02	1/8	3.16	20	290	20	290	20	290	60	870	60	870	60	870	2.1	0.6	0.33	0.004	0.007
PCL-U-04	1/4	6.3	16	232	16	232	16	232	48	696	48	696	48	696	6.4	1.7	1.37	0.024	0.01
PCL-U-06	3/8	7.9	6.9	100	6.9	100	6.9	100	20.7	300	20.7	300	20.7	300	11.4	3.0	2.37	0.027	0.022
PCL-U-08	1/2	10	6.9	100	6.9	100	6.9	100	20.7	300	20.7	300	20.7	300	17.8	4.7	5.32	0.029	0.03

PCL-UB系列 - 盲插快换

PCL-UB series—Blind plug quick change



·材质：不锈钢
Material: stainless steel

·密封：EPDM 密封
Seal: EPDM seal

·支持 OCP 互换标准
Supports OCP interchange standards

·最大工作压力：10~20bar
Maximum working pressure: 10~20bar

·径向偏差补偿：±1mm
Radial deviation compensation: ±1mm

·Cv 值高，高流量、低压降
High Cv value, high flow rate, low pressure drop

·100% 氦气检测
100% Helium Detected

·规格：UQDB02*、UQDB04、UQDB06、UQDB08*
Specifications: UQDB02*、UQDB04、UQDB06、UQDB08*

型号 Size	主体尺寸 Body Size	标称 流量 直径 Nominal Flow Dia	最大工作压力MAX .W.P.						最小爆破压力MIN.B.P.						额定 流量 Rated Flow*	Cv值 Cv Value	空气 裹入 Air Inclusion	流体 溢出 Fluid Loss	错位 Misalign- ment	
			连接后 Connected		阴接头 Socket/ Female Half		阳接头 Plug / Male Half		连接后 Connected		阴接头 Socket/ Female Half		阳接头 Plug / Male Half							
	inch	mm	Bar	psi	Bar	psi	Bar	psi	Bar	psi	Bar	psi	Bar	psi	lpm	gpm	-	Max.	Max.	mm
PCL-UB-04	1/4	5.5	16	232	16	232	16	232	48	696	48	696	48	696	6.4	1.7	1.22	0.004	0.025	1
PCL-UB-06	3/8	6.3	10	145	10	145	10	145	30	435	30	435	30	435	11.36	3	2.23	0.007	0.035	1

PCL-BM系列 - 自适应盲插快换

PCL-BM series—Self-centering Blind-Mate quick change



·材质：不锈钢
Material: stainless steel

·密封：EPDM 密封
Seal: EPDM seal

·多向浮动自对中：径向 ±1.5mm、轴向 ±2mm 角度偏移补偿，兼容机架装配公差
Multi-direction self-centering: ±1.5mm radial & ±2mm angular compensation, fits rack assembly tolerances

·盲插免对位：无需目视，机柜密闭空间单手推入自动找正锁紧
Blind mate design: One-hand push-to-lock without visual alignment in enclosed racks

·兼容全规格 UQD：UQD02/04/06/08 四尺寸全覆盖，冷热红蓝色标区分
Fully compatible with UQD02/04/06/08; red/blue coding for supply & return lines

·双面平面无滴漏阀：断开零溢液，100% 氦检零泄漏
Flat-face dry-break valve, zero spillage; 100% helium leak tested

·全流通道、流量比 OCP 标准高 25%、低压降
ull-flow design, 25% higher flow than OCP standard with low pressure drop

·规格：3mm; 5mm
Sizes: 3mm; 5mm

型号 Size	尺寸 Size	最大工作压力 MAX .W.P.		最小爆破压力 MIN.B.P.		径向偏移 Radial misalignment	角向偏移 Angular misalignment	额定 流量 Rated Flow*		Cv值 Cv Value	扭矩 Torque
	mm	Bar	psi	Bar	psi	mm	degree	lpm	gpm	-	N/m
PCL-BM-05	5	2.4	35	13.8	200	+/-5	+/-2.7	6	1.6	1.04	40+/-5(socket) 25+/-5(plug)

PCL-M 系列 — 手插快换

PCL-M series—hand plug quick change



MQD
通用型无泄漏快速接头
Universal Quick Disconnect Coupling

专为高密度 AI 算力机柜、高功率芯片液冷场景设计，MQD 接头结构紧凑，适配服务器内部狭小空间，在小口径管路场景下实现高流量、零泄漏的液冷连接。
Designed for high-power chip liquid cooling and high-density AI computing scenarios, the MQD coupling features a compact structure, fits into narrow spaces inside servers, and achieves high-flow, zero-spillage liquid cooling connections for small-diameter hose lines.

•**材质：**304L 不锈钢
Material: stainless steel

•**密封：**EPDM 密封
Seal: EPDM seal

•**支持单手快速连接或断开，运维便捷高效**
Supports quick, one-handed connection and disconnection, enabling convenient and efficient operations and maintenance.

•**Cv 值高，流量性能优异、压降低，适配高功率散热需求**
High Cv value, excellent flow performance, and low pressure drop—ideally suited for high-power heat dissipation requirements.

•**阴接头有色套筒、阳接头有色密封圈，红 / 蓝标识清晰，彻底避免供液 / 回液回路误接**
The female connector features a colored sleeve, while the male connector utilizes a colored sealing ring; the clear red and blue markings completely prevent accidental cross-connection of the supply and return fluid circuits.

•**-40°C~+150°C超宽工作温度范围，兼容乙二醇、去离子水等多种冷却液**
An ultra-wide operating temperature range of -40°C to +150°C, compatible with various coolants such as ethylene glycol and deionized water.

•**全系列出厂 100% 氦气泄漏检测，确保零泄漏可靠性**
The entire product series undergoes 100% factory helium leak testing to ensure zero-leak reliability.

•**规格：**MQD02、MQD03、MQD04
Specifications: MQD02、MQD03、MQD04

型号	主体尺寸	标称 流量 直径	最大工作压力MAX .W.P.						最小爆破压力MIN.B.P.						额定 流量	Cv值	空气 裹入	流体 溢出
			连接后		阴接头		阳接头		连接后		阴接头		阳接头					
Size	Body Size	Nominal Flow Dia	Connected		Socket / Female Half		Plug / Male Half		Connected		Socket / Female Half		Plug / Male Half		Rated Flow*	Cv Value	Air Inclusion	Fluid Loss
	inch	mm	Bar	psi	Bar	psi	Bar	psi	Bar	psi	Bar	psi	Bar	psi	lpm	-	Max.	Max.
PCL-M-02	1/8	3.3	6.9	100	6.9	100	6.9	100	20.7	300	20.7	300	20.7	300	2.04	0.63	0.003	0.005
PCL-M-03	3/16	4.9	6.9	100	6.9	100	6.9	100	20.7	300	20.7	300	20.7	300	4.54	1.32	0.008	0.012
PCL-M-04	1/4	6.4	6.9	100	6.9	100	6.9	100	20.7	300	20.7	300	20.7	300	6.81	1.8	0.025	0.03

补充说明
额定流量基于 25°C水介质、1bar 压降工况测试得出 符合 NVIDIA MQD 3.2 行业规范，为 AI 服务器液冷系统通用标准接口
可选直头、90° 弯头两种结构，适配不同安装空间需求 插拔循环寿命≥5000 次，满足数据中心长期运维需求

Supplementary Notes
The rated flow rate is derived from tests conducted using water as the medium at 25°C and a pressure drop of 1 bar.
Compliant with the NVIDIA MQD 3.2 industry specification, serving as a universal standard interface for AI server liquid cooling systems.
Available in two structural configurations—straight and 90° elbow—to accommodate diverse installation space requirements.
Boasts a mating cycle lifetime of ≥5,000 cycles, meeting the long-term operational and maintenance demands of data centers.

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多功能软管

Push-Lok Plus



适用多种领域

APPLICABLE TO VARIOUS FIELDS

能输送从空气、水到多种油类、化学溶剂，应用范围广泛。



极致柔韧 安装省心

EXTREMELY FLEXIBLE AND HASSLE-FREE INSTALLATION

极致弯曲半径与高柔韧性管体，可在狭窄空间内灵活布线，大幅降低安装难度和时间成本。



宽温适用 稳定可靠

WIDE TEMPERATURE RANGE, STABLE AND RELIABLE

管体可在-40°C~100°C的宽泛温度范围内保持性能稳定，应对常见工况游刃有余。



多种颜色可选 安全高效

A VARIETY OF COLORS AVAILABLE, SAFE AND EFFICIENT

提供多种颜色选择，可用于区分不同管路系统，有效防止误操作，提升安全性和管理效率。

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数据库中心液冷管

DATA CENTER COOLING HOSE



精准输送 冷却无忧



冰火无阻 稳如磐石

UNSTOPPABLE, AS SOLID AS A ROCK

能耐受-40℃~140℃极端温度，持续将冷却液从歧管输送至服务器，其过氧化物硫化EPDM内胶保障流体纯净度，保护敏感电子设备免受热应力影响。



高压强耐受

HIGH PRESSURE RESISTANCE

232PSI工作压力，外胶层符合UL94-V-O阻燃等级，保障系统安全稳定运行。



柔韧贯通 恒温守护



柔韧自如 打破安装僵局

FLEXIBLE AND FLEXIBLE, BREAKING THE INSTALLATION DEADLOCK

超柔韧特性可实现灵活布线，柔韧自如，极大节省安装时间和人力成本。



内外双重安全保障

DOUBLE INTERNAL AND EXTERNAL SECURITY

外胶层符合UL94-V-O阻燃等级，确保高温环境下安全合规，内胶层过氧固化工艺，可以最大限度减少析出，避免任何冷却液污染和通路堵塞。



超宽域工况适应能力

ULTRA-WIDE ADAPTABILITY TO WORKING CONDITIONS

-40℃~95℃温度范围覆盖典型工况，稳定应对输送需求。

Push-on /Push-Lock Exceed SAE 100 R6

PLK

多功能软管 Push-Lok Plus



特点: 光面，用在低压领域，弯曲半径小，更柔韧，可做不同颜色。
结构: 软管由一层耐油橡胶内胶层，一层纤维编织增强层和一层耐油耐候合成橡胶外胶层组成。
应用: 适用于低压液压系统领域，输送空气、水、水乙二醇、防冻剂、燃油、润滑油和石油基液压油。温度范围：-40℃~+100℃
除：空气：最高+70℃ 水：最高+85℃



Features: Smooth cover, low pressure area, smaller bend radius, more flexible, different color cover.
Construction: Hydraulic oil resistant special synthetic rubber, 1 textile braid, oil, abrasion and weather resistant synthetic rubber.
Application: Applicable to low pressure hydraulic system, conveying air, water, water glycol, antifreeze, fuel, lubricating oil and petroleum-based hydraulic oil. Temperature range: -40°C~+100°C Except: Air: up to +70°C Water: up to +85°C



Eigenschaften: Glatte Oberfläche, geeignet für Niederdruckanwendungen, kleiner Biegeradius, hohe Flexibilität, in verschiedenen Farben erhältlich.
Aufbau: Der Schlauch besteht aus einer Innenschicht aus ölbeständigem Gummi, einer Verstärkungsschicht aus Fasergeflecht und einer Außenschicht aus öl- und witterungsbeständigem Synthesekautschuk.
Anwendung: Geeignet für Niederdruckhydrauliksysteme zur Förderung von Luft, Wasser, Wasserglykol, Frostschutzmittel, Kraftstoff, Schmieröl und Hydrauliköl auf Mineralölbasis. Temperaturbereich: -40 °C bis +100 °C. Ausgenommen: Luft: bis +70 °C, Wasser: bis +85 °C.



機能: 滑らかな表面、低圧分野での使用、曲げ半径が小さく、柔軟性が高く、様々な色からお選びいただけます。
構造: ホースは、耐油性ゴムの内層、繊維編みの補強層、耐油性・耐候性合成ゴムの外層で構成されています。
用途: 低圧油圧システム分野、空気、水、水グリコール、不凍液、燃料、潤滑油、石油系作動油の輸送に適しています。温度範囲：-40℃~+100℃
ただし、空気：最大+70℃、水：最大+85℃



Características: Superficie lisa, ideal para aplicaciones de baja presión, radio de curvatura pequeño, mayor flexibilidad y disponible en diferentes colores.
Estructura: La manguera consta de una capa interna de caucho resistente al aceite, una capa de refuerzo de fibra trenzada y una capa externa de caucho sintético resistente al aceite y a la intemperie.
Aplicación: Adecuada para sistemas hidráulicos de baja presión, para el transporte de aire, agua, agua-glicol, anticongelante, combustible, aceite lubricante y aceite hidráulico derivado del petróleo. Rango de temperatura: -40 °C - +100 °C Excepto: Aire: hasta +70 °C Agua: hasta +85 °C

胶管型号 Hose Part No.	胶管内径 I.D.				胶管外径 O.D.	最大工作压力 MAX W.P.		最小弯曲半径 Min B.R.	参考重量 Weight	最大真空压力 Weight
	DN	inch	size	mm	mm	psi	MPa	mm	Kg/m	kPa
PLK-4-XXX-RL	6	1/4"	-4	6.3	12.7	350	2.4	65	0.13	95
PLK-6-XXX-RL	10	3/8"	-6	9.5	15.9	350	2.4	75	0.16	95
PLK-8-XXX-RL	12	1/2"	-8	12.7	19.8	300	2.1	125	0.27	95
PLK-10-XXX-RL	16	5/8"	-10	15.9	23.0	300	2.1	150	0.28	51
PLK-12-XXX-RL	20	3/4"	-12	19.1	26.2	300	2.1	180	0.36	51
PLK-16-XXX-RL	25	1"	-16	25.4	32.6	200	1.4	250	0.55	51

注：型号中的XXX表示外胶层颜色： XXX=BLK=黑色 BLU=蓝色 RED=红色 GRN=绿色 GRA=灰色 WHT=白色 YEL=黄色
例如：PLK-4-BLK-PL（黑色外胶层） PLK-16-XXX-RL仅提供黑色和灰色

PLK-16 " SAE 100R6 W.P. PSI

数据中心液冷管

DATA CENTER COOLING HOSE



	特点: 结构: 应用:	外胶层符合UL94-V-O阻燃等级，材质无卤素。 软管由过氧化物固化、无锌无硫、合成 EPDM 橡胶内胶层，两层合成纤维增强层，阻燃、过氧化物固化、无硫无卤素、合成 EPDM 橡胶外胶层组成。 适用于数据中心、电子元件冷却、远程医疗、加密货币挖矿、IT热管理等领域，温度范围为-40℃~+140℃。
	Features: Construction: Application:	The outer rubber layer meets the UL94-V-O flame retardant rating and is halogen-free. The hose consists of a peroxide-cured, zinc-free, sulfur-free, synthetic EPDM rubber inner layer, two layers of synthetic fiber reinforcement, and a flame-retardant, peroxide-cured, sulfur-free, halogen-free, synthetic EPDM rubber outer layer. Suitable for data centers, electronic component cooling, telemedicine, cryptocurrency mining, IT thermal management and other fields, with a temperature range of -40°C~+140°C.
	Eigenschaften: Aufbau: Anwendung:	Die äußere Gummischicht entspricht der Flammenschutzklasse UL94-V-O und ist halogenfrei. Der Schlauch besteht aus einer peroxidvernetzten, zink- und schwefelfreien Innenschicht aus synthetischem EPDM-Kautschuk, zwei Lagen synthetischer Faserverstärkung und einer flammhemmenden, peroxidvernetzten, schwefel- und halogenfreien Außenschicht aus synthetischem EPDM-Kautschuk. Geeignet für Rechenzentren, die Kühlung elektronischer Komponenten, Telemedizin, Kryptowährungs-Mining, IT-Wärmemanagement und weitere Bereiche mit einem Temperaturbereich von -40 °C bis +140 °C.
	機能: 構造: 用途:	外層ゴムはUL94-V-O難燃性規格に適合し、ハロゲンフリーです。 ホースは、過酸化化物加硫処理、亜鉛フリー、硫黄フリーの合成EPDMゴム内層、2層の合成繊維補強材、そして難燃性、過酸化化物加硫処理、硫黄フリー、ハロゲンフリーの合成EPDMゴム外層で構成されています。 データセンター、電子部品冷却、遠隔医療、暗号通貨マイニング、IT熱管理などの分野に適しており、使用温度範囲は-40℃～+140℃です。
	Características: Estructura: Aplicación:	La capa exterior de caucho cumple con la clasificación UL94-V-O de retardancia de llama y es libre de halógenos. La manguera consta de una capa interior de caucho sintético EPDM curado con peróxido, sin zinc ni azufre, dos capas de refuerzo de fibra sintética y una capa exterior de caucho sintético EPDM curado con peróxido, sin azufre ni halógenos, también ignífugo. Adecuada para centros de datos, refrigeración de componentes electrónicos, telemedicina, minería de criptomonedas, gestión térmica de TI y otros campos, con un rango de temperatura de -40 °C a +140 °C.

胶管型号 Hose Part No.	 胶管内径 I.D.		 胶管外径 O.D.		 工作压力 W.P.		 最小爆破压力 Min.B.P.		 最小弯曲半径 Min B.R.		 参考重量 Weight
	inch	mm	inch	mm	psi	Bar	psi	Bar	inch	mm	Kg/m
DCC-2	5/32"	4	0.47	12.0	240	16	960	64	0.59	15	0.13
DCC-3	3/16"	5	0.51	13.0	240	16	960	64	0.79	20	0.14
DCC-4	1/4"	6	0.59	15.0	240	16	960	64	0.98	25	0.17
DCC-6	3/8"	10	0.73	18.5	240	16	960	64	1.38	35	0.22
DCC-8	1/2"	13	0.87	22.1	240	16	960	64	2.95	75	0.32
DCC-10	5/8"	16	0.99	25.2	240	16	960	64	3.94	100	0.34
DCC-12	3/4"	19	1.17	29.7	240	16	960	64	4.92	125	0.48
DCC-16	1"	25.4	1.46	37.1	240	16	960	64	5.91	150	0.67

可选颜色 Available Cover Colors: -BLK -RED -BLU

数据中心液冷管

DATA CENTER COOLING HOSE



	特点: 结构: 应用:	超越EN12115标准，外胶层符合UL94-V-O阻燃等级，无卤素，内胶层过氧固化工艺。 软管由耐化学品，黑色光滑EPDM合成橡胶内胶层，两层高强度合成纤维增强和两根抗静电铜丝增强层和抗磨损、阻燃、耐臭氧和耐天候EPDM外胶层组成。 适用于数据中心、电子元件冷却、远程医疗、加密货币挖矿、IT热管理等领域，温度范围-40℃+95℃
	Features: Construction: Application:	Acc. to standard EN12115, the outer layer meets the UL94-VO flame retardant rating The hose consists of a chemical-resistant, black smooth EPDM synthetic rubber inner rubber layer, two layers of high-strength synthetic fiber reinforcement and two anti-static copper wire reinforcement layers and an anti-wear, flame retardant, odor-resistant oxygen and weather-resistant EPDM outer rubber layer. Suitable for data centers, electronic component cooling, telemedicine, cryptocurrency mining, IT thermal management and other fields Temperature range -40°C+95°C
	Eigenschaften: Aufbau: Anwendung:	Die äußere Gummischicht übertrifft die Norm EN12115, ist halogenfrei und erfüllt die Flammenschutzklasse UL94-V-O. Die innere Gummischicht ist peroxidvernetzt. Der Schlauch besteht aus einer chemikalienbeständigen, schwarzen, glatten EPDM-Synthesekautschuk-Innenschicht, zwei Lagen hochfester Synthesefaserverstärkung und zwei antistatischen Kupferdrahtverstärkungen sowie einer verschleißfesten, flammhemmenden, geruchs- und sauerstoffbeständigen EPDM-Außenschicht. Geeignet für Rechenzentren, die Kühlung elektronischer Komponenten, Telemedizin, Kryptowährungs-Mining, IT-Wärmemanagement und weitere Bereiche. Temperaturbereich: -40 °C bis +95 °C.
	機能: 構造: 用途:	EN12115規格を上回り、外側のゴム層はUL94-V-O難燃性等級に適合し、ハロゲンフリー、内側のゴム層は過酸化化物硬化処理されています。 ホースは、耐薬品性、黒色の滑らかなEPDM合成ゴム製の内側ゴム層、2層の高強度合成繊維補強材、2層の帯電防止銅線補強材、そして耐摩耗性、難燃性、耐臭性、耐酸素性、耐候性を備えたEPDM外側ゴム層で構成されています。 データセンター、電子部品冷却、遠隔医療、暗号通貨マイニング、IT熱管理などの分野に適しています。使用温度範囲: -40℃～+95℃
	Características: Estructura: Aplicación:	Superando la norma EN12115, la capa exterior de caucho cumple con la clasificación UL94-V-O de retardancia de llama, libre de halógenos, y la capa interior de caucho está curada con peróxido. La manguera consta de una capa interior de caucho sintético EPDM liso y negro, resistente a productos químicos, dos capas de refuerzo de fibra sintética de alta resistencia, dos capas de refuerzo de fibra sintética de alta resistencia de cable antiestático y una capa exterior de caucho EPDM antidesgaste, ignífuga y resistente a los olores, al oxígeno y a la intemperie. Adecuada para centros de datos, refrigeración de componentes electrónicos, telemedicina, minería de criptomonedas, gestión térmica de TI y otros campos. Rango de temperatura: -40 °C - +95 °C.

胶管型号 Hose Part No.	 胶管内径 I.D.		 胶管外径 O.D.		 工作压力 W.P.		 最小爆破压力 Min.B.P.		 最小弯曲半径 Min B.R.		 参考重量 Weight
	inch	mm	inch	mm	psi	Bar	psi	Bar	inch	mm	Kg/m
DCC-16	1"	25.4	1.5	37.0	232	16	928	64	5.9	150	0.63
DCC-20	1 1/4"	32.0	1.7	44.0	232	16	928	64	6.9	175	0.85
DCC-24	1 1/2"	38.0	2.0	51.0	232	16	928	64	8.8	225	0.97
DCC-32	2"	51.0	2.6	67.0	232	16	928	64	10.8	275	1.61
DCC-40	2 1/2"	63.5	3.1	79.0	232	16	928	64	11.8	300	2.02
DCC-48	3"	76.0	3.6	92.0	232	16	928	64	13.8	350	2.72

可选颜色 Available Cover Colors: -BLK -RED -BLU