

# QUICK DISCONNECT COUPLINGS

## for Fuel Cell Systems

### Why Use a Colder Quick Disconnect Coupling?

Colder couplings lock into place with an audible "click," creating a secure, leak-free seal every time. They also allow quick and easy one-hand disconnections by simply pressing the thumb latch. Colder quick disconnect couplings are the fastest and easiest way to connect and disconnect fluid lines in any fuel cell system.



**Tubing range:** 1/16" to 3/4"

#### Push button thumb latch

One-hand disconnect. Press thumb latch to disconnect coupling.

#### O-ring

Seals bubble tight in pressure or vacuum.

#### Integral terminations for bodies or inserts include:

Pipe threads, hose barbs, push-to-connect fittings and ferrules compression fittings for easy connection to semi-rigid plastic tubing from 1/16" to 3/4" and 3mm to 19mm ID.

#### Shutoff options:

Straight thru – open flow path with no valve

Single shutoff – valve in either the coupling insert or the coupling body

Double shutoff – valves in both the insert and the body of the coupling

Non-spill – double shutoff with virtually no spillage upon disconnect

#### Mounting options:

Colder couplings are available in pipe thread, panel mount, in-line or elbow configurations.

**Flexibility:** Colder offers an extensive selection of materials and sizes.

**Modularity:** Fuel sources are easily connected or disconnected.

**Safety:** Couplings reduce or eliminate the potential for spills.

**Maintenance:** Service and maintenance become quick and easy.

**Convenience:** One-hand operation with an audible "click" that signals a secure connection.

Colder has designed thousands of solutions for unique coupling and fitting applications. We have a coupling to fit virtually any fuel cell systems application and we're ready to work with you to solve your most critical fluid connection problems.

- Standby power
- Portable electronics
- Miniature fuel cells
- Transportation
- Fuel lines
- Filling lines
- Drain lines
- Cooling lines

# Fluid Connections for

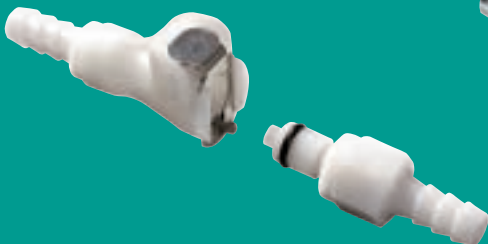
FUEL *supply*



*Fuel Lines • Filling Lines • Drain Lines • Cooling*

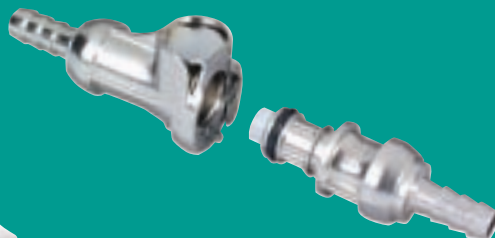
## PMC Series

Material: Acetal  
Flow: 1/8"



## ZLC Series

Material: Die-cast, nickel-plated zinc  
Flow: 1/4"



## NS4 Series

Material: Polypropylene  
Flow: 1/4"



# or Fuel Cells

Colder also has a wide range of couplings for balance of plant applications.



Lines

FUEL cell

## RPN Series

Material: Anodized Aluminum  
Flow: 3/8"



## MicroConnector

(for portable electronics)

Flow: 1mm



Contact Patrick Williams  
at 651-603-2551  
for more information

## Case Studies

### ReliOn

ReliOn is the only hydrogen fuel cell developer using a patented hot-swappable, modular cartridge architecture. This modularity differentiates ReliOn's highly efficient, environmentally friendly fuel cells and makes them far more reliable than other architectures, say company officials.

The critical plug-and-play ability to disconnect and reconnect fuel cell cartridges while power is still being created—key to the high operational reliability of ReliOn's fuel cells—is afforded by Colder couplings.

"Colder's hot-swappable coupling design is low maintenance and leak free, ensuring continuous power transmission," says ReliOn's engineering manager Scott Spink. "The company's willingness to work with us to design a custom component has aided our mission to provide customers with an extremely dependable power supply."

### Tekion

Tekion is commercializing a miniature power pack that fits inside mobile devices. The Formira Power Pack™, which is a micro fuel cell/battery hybrid, will allow users to power their mobile devices continuously without re-charging on the electricity grid.

The micro fuel cell is integrated with a miniature liquid fuel cartridge. When the liquid fuel is consumed, the user quickly inserts a new fuel cartridge while the device remains operating. One key component of the fuel cartridge concept is a miniaturized coupling from Colder Products Company that connects the fuel cartridge to the power pack. This easy-to-use connection product enables the cartridge to be quickly snapped in and out of the device in one simple motion.

"Colder immediately took an active role in the development process and produced a custom-designed coupling prototype that not only addresses our size requirements, but also provides operational and safety benefits," says Malcolm Man, director of programs and strategic planning at Tekion. "To meet required safety standards for the applications we are pursuing, we need to ensure that our liquid fuel systems are virtually leak free. Colder's connections offer this critical fluid-control safeguard."

# IdentiQuik™ Series Couplings

Colder's **IdentiQuik™** series of Smart Couplings utilizes RFID technology to automatically identify fluid products and their characteristics and capture data from point-of-origin through point-of-use. Data stored on the package insert or fluid delivery line is transferred across the coupling before the two halves are connected. Your control system obtains this data via RS-232 communications and uses it to improve safety, prevent misconnections, avoid dangerous combinations, verify processes, protect your brand, and capture important process data.

Visit [www.colder.com/sc](http://www.colder.com/sc) for more information.



Visit [www.colder.com](http://www.colder.com) for on-line catalogs and literature.



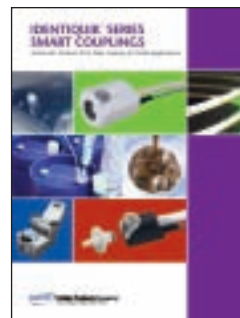
Industrial



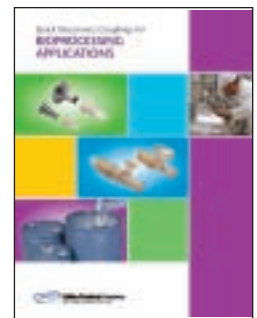
Medical Device



Chemical Management



Smart Technology



Bioprocessing



**WARNING:** Due to the wide variety of possible fluid media and operating conditions, unintended consequences may result from the use of this product, all of which are beyond the control of Colder. It is the user's responsibility to carefully determine and test for compatibility for use with their application. All such risks shall be assumed by the buyer.

**WARRANTY:** All sales are subject to Colder Products Company's limited express warranty set forth in the Colder catalog. Contact your local distributor or Colder Customer Service for warranty provisions.

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