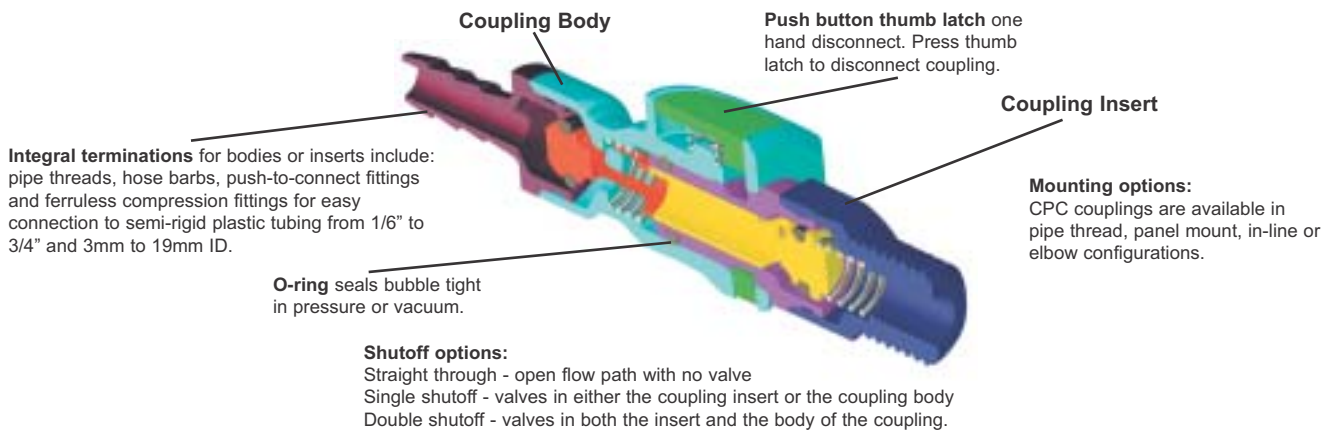




CPC quick disconnect couplings for plastic tubing provide numerous benefits: easy automatic latching, an “audible” click when engaged, reliable and convenient one-hand disconnect. They provide flexibility in a variety of materials, mounting options and terminations. CPC couplings can fit the most difficult tubing applications for reusable or disposable use.



**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 1/6" to 3/4" and 3mm to 19mm ID.

**Mounting options:** CPC couplings are available in pipe thread, panel mount, in-line or elbow configurations.

## Guide for Selecting a CPC Quick Disconnect Coupling

Low pressure (under 250 psi) applications for fluid power and fluid handling involve a great variety of media, pressure and temperatures. Use the following criteria checklist to simplify your selection process.

### 1. Media

The corrosiveness and viscosity of the fluid going through the coupling needs to be considered. Also be aware of any media the coupling may be exposed to externally.

### 2. Pressure

Consider the maximum pressure your coupling will need to withstand during operation. Couplings rated at 250 psi handle most low pressure applications. Make sure your application will never exceed the maximum coupling rating.

### 3. Temperature

To choose the most appropriate material, know your minimum and maximum temperature range. Standard temperature tolerances range from -40°F to 200 °F, depending on coupling material.

### 4. Flow

Determine flow requirements for your application such as GPM and pressure drop. Also consider the effects of shutoff options and your tubing connection on the coupling flow.

### 5. Mounting Options

Determine how the coupling is configured into your application. Common configurations include pipe thread, panel mount, in-line or elbow.

### 6. Shutoff Options

Shutoffs are convenient when a user needs to disconnect tubing and stop the flow of the media through the coupling. CPC couplings can provide shutoffs in either the insert or the body half or both.

### 7. Tubing Connections

Before selecting a coupling, consider the variety of available terminations. CPC couplings are made for 1/16" to 3/4" ID tubing. Hose barb, ferrules polytube fittings, and push-to-connect are the most common termination options. Threaded and panel mount options are also available.

### 8. Installation and Serviceability

Consider these three important elements when specifying a coupling into your design. Ease of installation, replacement and service are all improved by specifying CPC couplings.

## Finding The Best Material For The Job

**Acetal:** Acetal thermoplastic (Polyoxymethylene) is strong, lightweight, and economical and used for a wide variety of chemical and mechanical components.

**Polypropylene:** Polypropylene thermoplastic has excellent chemical resistance and withstands sterilisation. It is commonly used in water filtration and bioprocessing applications.

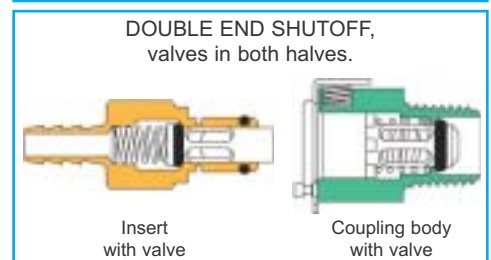
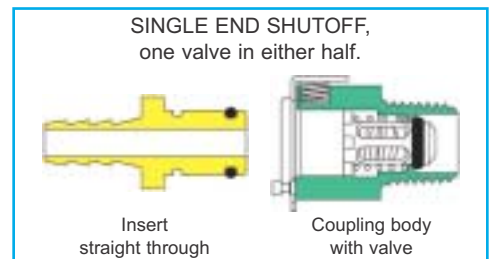
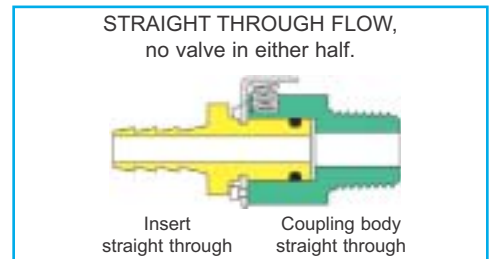
**Polysulfone (PSO):** Polysulfone thermoplastic has excellent strength, good chemical resistance, withstands repeated sterilisation, and withstands higher temperatures than other thermoplastics.

**Polycarbonate (PC):** Polycarbonate thermoplastic is resistant to chemicals, withstands sterilisation, and is transparent. It is commonly used in medical devices.

**Chrome-Plated Brass:** A rugged metallic material with an attractive appearance, excellent for higher pressure and temperature. It is commonly used in instrumentation, air and vacuum line applications.

**Stainless Steel:** A superior grade of steel with excellent chemical resistance and durability. Applications include instrumentation, pharmaceutical, semiconductor and speciality chemical.

**Aluminium:** A light weight and durable material that has good chemical resistance. Applications include automotive fluid recovery, marine and RV fluids, and cooling lines.





### Sterilisation & Disinfectant Methods

Sterilisation processes vary substantially depending on equipment and specific process. Therefore, we present this sterilisation method chart as a basic guide only. Since so many factors affect the sterilisation capability of a material or device, it is the customer's responsibility to test CPC products under their own sterilisation conditions.

Table with columns: MATERIAL, Disinfectants (Formalin, Isopropyl Alcohol, Ethyl Alcohol), Ethylene Oxide, Autoclave, E-Beam Irradiation, Gamma Irradiation, Dry Heat. Rows include METALS (302/316 Stainless Steel, 6061 Aluminium, Chrome Plated Brass-CDA 360), POLYMERS (ABS, Acetal, HDPE, LDPE, Nylon, Polycarbonate, Polypropylene, Polysulfone), and ELASTOMERS (Buna-N, EPR/EPDM, Silicone, Fluorocarbon, Chemraz).

#### STERILISATION METHODS

Disinfectants 70°F (20°C), Formalin, ethyl, alcohol, etc. Sterilise coupled or uncoupled.
Ethylene Oxide, ETO 4 hours, 100% Eto @ 110°F (43°C), up to 5 repetitions, coupled or uncoupled.
Autoclave 250°F (121°C), 30 min. max., up to 10 repetitions. Sterilise uncoupled only.
Electron Beam Maximum cumulative exposure of 50 kilograys. Sterilise coupled or uncoupled.
Gamma Maximum cumulative exposure of 50 kilograys. Sterilise coupled or uncoupled.
Dry Heat 250°F (121°C), 12 hour, no pressure. Sterilise uncoupled only.

NOTE: Testing conducted at room temperature except where noted.

Legend for sterilisation methods: Blue box = Yes, recommended material; Pink box = No, not recommended; White box = Not applicable.

### Chemical Compatibility

Chemicals can affect the strength, surface appearance, colour, dimensions or weight of plastics. Therefore, we present this chemical resistance chart as a basic guide only. Because many factors affect the chemical resistance of a given material, it is the customer's responsibility to test CPC products under their own application conditions.

Table with columns: MATERIAL, Acetic Acid, Acetone, Air, Ammonia, Anhydrous, Benzene, Carbon Dioxide, Chlorine Water, Ethanol (Ethyl Alcohol), Ethylene Glycol, Gasoline, Unleaded, Hydrochloric Acid, Hydrofluoric Acid, Isopropyl Alcohol, Methyl Ethyl Ketone (MEK), Methanol (Methyl Alcohol), Oxygen, Ozone, Sodium Hypochlorite, Steam, Sulfuric Acid, Air Free, Toluene, Trichloroethylene, Water, Fresh. Rows include METALS (Chrome-Plated Brass, Stainless Steel, Aluminium), POLYMERS (Acetal, Polycarbonate, Polypropylene, Polysulfone, Peek), and ELASTOMERS (Buna-N, EPR/EPDM, Fluorocarbon, Chemraz).

NOTE: All ratings are based on concentration level at 100% and temperature at 21°C.

Legend for chemical compatibility: A Excellent, no apparent effect; B Good, little or no effect; C Fair, some effect, not long term; D Not recommended, severe effect; N/A Not applicable.



**MATERIALS**

Bodies and Valves  
Internal Spring  
External Springs, Pin, Latch  
Seals  
Colour

Acetal  
316 Stainless Steel  
Stainless Steel  
Buna-N, others available  
Natural White, others available

**WORKING PRESSURE**

Vacuum to 120 PSI, 8.3 bar

**OPERATING TEMPERATURE**

-40°C to +82°C (-40°F to +180°F) continuous

**COUPLING INSERTS 1/4" FLOW**

PART NO.	CONNECTION	TUBING SIZE	METRIC EQ.	LENGTH	PRICE
<b>PIPE THREAD</b>					
<b>Male Thread - Valved</b>					
PLCD 240-04	1/4" NPT			1.63"	£ 5.39
PLCD 240-06	3/8" NPT			1.59"	£ 5.39
PLCD 240-040	1/4" BSPT			1.63"	£ 5.39
PLCD 240-060	3/8" BSPT			1.64"	£ 5.98
<b>Male Thread - Un-Valved</b>					
PLC 240-04	1/4" NPT			1.25"	£ 1.71
PLC 240-06	3/8" NPT			1.25"	£ 1.43
PLC 240-040	1/4" BSPT			1.53"	£ 1.71
PLC 240-060	3/8" BSPT			1.25"	£ 1.71
<b>PANEL MOUNT</b>					
<b>Ferruleless Polytube Fitting, PTF - Valved</b>					
PLCD 400-04		1/4"OD .170"ID	6 x 4.3 mm	1.91"	£ 7.30
PLCD 400-M8			8 x 6 mm	2.03"	£ 8.90
PLCD 400-06		3/8"OD .250"ID	9.5 x 6 mm	2.05"	£ 8.31
PLCD 400-M10			10 x 8 mm	2.05"	£ 9.23
<b>Ferruleless Polytube Fitting, PTF -Un-Valved</b>					
PLC 400-04		1/4"OD .170"ID	6 x 4.3 mm	1.78"	£ 5.33
PLC 400-M8			8 x 6 mm	1.91"	£ 5.88
PLC 400-06		3/8"OD .250"ID	9.5 x 6 mm	1.91"	£ 5.36
PLC 400-M10			10 x 8 mm	1.91"	£ 6.03
<b>Hose Barb - Valved</b>					
PLCD 420-04		1/4"ID	6.4 mm ID	2.05"	£ 7.03
PLCD 420-05		5/16"ID	7.9 mm ID	2.05"	£ 7.44
PLCD 420-06		3/8"ID	9.5 mm ID	2.05"	£ 7.39
<b>Hose Barb - Un-Valved</b>					
PLC 420-04		1/4"ID	6.4 mm ID	1.91"	£ 3.53
PLC 420-05		5/16"ID	7.9 mm ID	1.91"	£ 4.27
PLC 420-06		3/8"ID	9.5 mm ID	1.91"	£ 4.03
<b>IN LINE</b>					
<b>Ferruleless Polytube Fitting, PTF - Valved</b>					
PLCD 200-04		1/4"OD .170"ID	6 x 4.3 mm	1.88"	£ 6.18
PLCD 200-M8			8 x 6 mm	1.82"	£ 6.92
PLCD 200-06		3/8"OD .250"ID	9.5 x 6 mm	1.82"	£ 6.18
PLCD 200-M10			10 x 8 mm	1.82"	£ 9.23
<b>Ferruleless Polytube Fitting, PTF - Un-Valved</b>					
PLC 200-04		1/4"OD .170"ID	6 x 4.3 mm	1.25"	£ 2.89
PLC 200-M8			8 x 6 mm	1.38"	£ 5.34
PLC 200-06		3/8"OD .250"ID	9.5 x 6 mm	1.38"	£ 2.89
PLC 200-M10			10 x 8 mm	1.38"	£ 5.02
<b>Hose Barb - Valved</b>					
PLCD 220-04		1/4"ID	6.4 mm ID	1.99"	£ 5.32
PLCD 220-05		5/16"ID	7.9 mm ID	1.99"	£ 5.32
PLCD 220-06		3/8"ID	9.5 mm ID	1.81"	£ 5.32
<b>Hose Barb - Un-Valved</b>					
PLC 220-04		1/4"ID	6.4 mm ID	1.35"	£ 1.14
PLC 220-05		5/16"ID	7.9 mm ID	1.35"	£ 1.14
PLC 220-06		3/8"ID	9.5 mm ID	1.36"	£ 1.05
<b>ELBOWS</b>					
<b>Ferruleless Polytube Fitting, PTF - Valved</b>					
PLCD 210-06		3/8"OD .250"ID	9.5 x 6 mm	1.35"	£ 7.13
<b>Ferruleless Polytube Fitting, PTF - Un-Valved</b>					
PLC 210-06		3/8"OD .250"ID	9.5 x 6 mm	1.22"	£ 5.03
<b>Hose Barb - Valved</b>					
PLCD 230-04		1/4"ID	6.4 mm ID	1.28"	£ 6.70
PLCD 230-06		3/8"ID	9.5 mm ID	1.28"	£ 6.70
<b>Hose Barb - Un-Valved</b>					
PLC 230-04		1/4"ID	6.4 mm ID	1.10"	£ 4.16
PLC 230-06		3/8"ID	9.5 mm ID	1.25"	£ 4.16

