

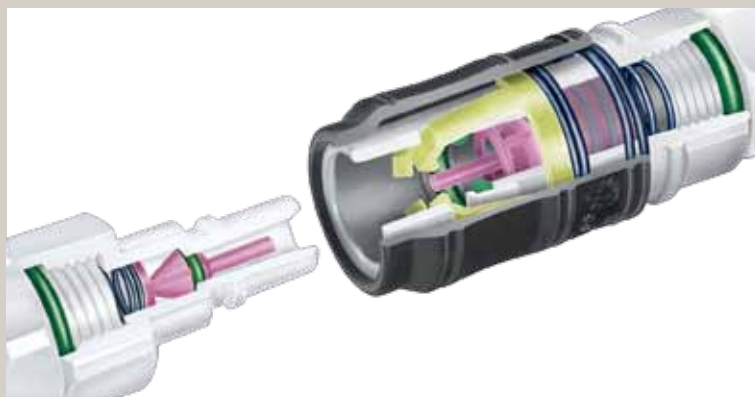
Chemical Resistance

TEESING

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RectuChem

This quick connect coupling system made of polyvinyl fluoride (PVDF) has been designed for increased resistance of chemicals. The stable spring made of high quality stainless steel guarantees a secure connection and permanent functionality.



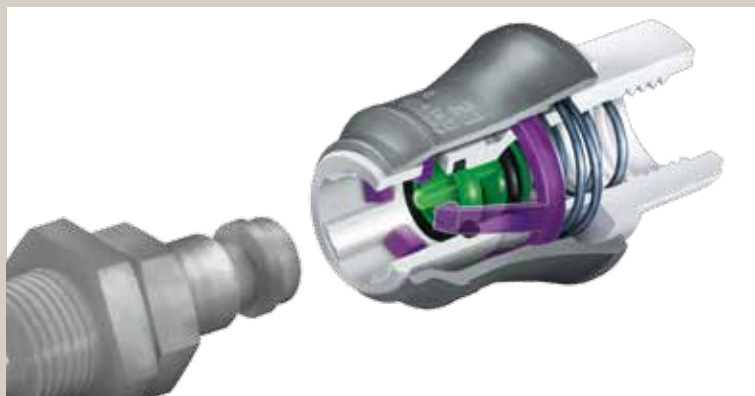
RectuChem+

This quick connect coupling system completely made of solid plastic is extremely resistant to all organic and mineral media. The resistance of the sealing materials, the PVDF base material and the spring fittings made of PEEK offer virtually unlimited application possibilities. The system is excellently suited for media that must not be contaminated by metal radicals.



RectuPom

The tried and tested, quick connect coupling system made of thermoplastic polymer stands out for its unparalleled, high mechanical strength and outstanding resistance to liquids and high temperatures. The plug is automatically locked in position when pushed in. To disconnect, simply pull back the sleeve.



The following details are non-binding guide values to determine chemical resistance.
If in doubt, please ask your consultant.

RectuChem (PVDF) chemical resistance

1 = resistant

2 = limited resistance

3 = not resistant

Chemicals	Temperature					
	20°C	50°C	70°C	100°C	110°C	120°C
Acetaldehyde	3					
Acetanhydride	3	3	3			
Acetic acid (100%)	1	1	2	3	3	
Acetic acid (50%)	1	1	1	1	1	
Acetic acid (80%)	1	1	1	1		
Acetone	3	3				
Acetone (50% water)	2	2	3			
Acetone nitrile	1	1	2			
Acetophenone	1	2	3	3		
Acetyl acetone	3			3		
Acetyl chloride	3	3				
Acryl nitrile	1	2				
Adipic acid, diluted	1	1	1			
Allyl chloride	1	1	1	1		
Aluminium chloride	1	1	1	1	1	1
Aluminium chloride (50%)	1	1	1			
Aluminium fluoride	1	1	1	1	1	1
Aluminium fluoride (50%)	1	1	1			
Aluminium hydroxide	1	1	1	1	1	1
Aluminium nitrate	1	1	1	1	1	1
Aluminium nitrate (50%)	1	1	1			
Aluminium potassium sulphate	1	1	1	1	1	1
Aluminium sulphate	1	1	1			
Ammonia (30%)	1	1	1	1		
Ammonia, anhydrous	1	1	1	1	1	1
Ammonium aluminium sulphate	1	1	1	1	1	1
Ammonium carbonate	1	1	1	1	1	1
Ammonium chloride	1	1	1	1	1	1
Ammonium chloride (50%)	1	1	1	1	1	1
Ammonium fluoride	1	1	1	1	1	1
Ammonium fluoride (20%)	1	1	1	1	1	1
Ammonium hydroxide	1	1	1	1	1	1
Ammonium nitrate	1	1	1	1	1	1
Ammonium nitrate (50%)	1	1	1	1	1	1
Ammonium phosphate	1	1	1	1	1	1
Ammonium phosphate (50%)	1	1	1	1	1	1
Ammonium sulphate	1	1	1	1	1	1
Ammonium sulphate (50%)	1	1	1	1	1	1
Ammonium sulphide	1	1	1	1	1	1
Amyl acetate	1	1	2	3	3	
Amyl alcohol	1	1	1	1	1	1
Amyl chloride	1	1	1	1	1	1
Amyl chloride (50%)	1	1	1	1	1	1
Aniline	1	2	2	3		
Antimony trichloride	1					
Aqua regia			3			
Arsenic acid	1	1	1	1	1	1
Barium carbonate	1	1	1	1	1	1
Barium chloride	1	1	1	1	1	1
Barium hydroxide	1	1	1	1	1	1
Barium sulphide	1	1	1	1	1	1
Benzaldehyde	2	2	3			
Benzene	1	2	2			

Chemicals	Temperature					
	20°C	50°C	70°C	100°C	110°C	120°C
Benzene-sulphonic acid	1	3				
Benzoic acid	1	1	1	1	1	1
Benzoic acid methyl ester	1		3			
Benzyl alcohol	1	1	1	1	1	1
Benzyl chloride	1	2	2	3	3	3
Borax	1	1	1	1	1	1
Boric acid	1	1	1	1	1	1
Bromic acid	1	1	1	1	1	
Bromine water	1	1	1	1		
Bromine, dry	1	1	1			
Butadiene	1	1	1	1		
Butene	1	1	1	1	1	1
Butyl acetate	1	2	3	3		
Butyl acrylate	1	2	3	3		
Butyl glycol	1	1	1	1	1	1
Butyl phenol	1	1	1	1		
Butyric acid	1	1	1	1	1	
Calcium carbonate	1	1	1	1	1	1
Calcium chlorate	1	1	1	1	1	1
Calcium chloride	1	1	1	1	1	1
Calcium disulphate	1	1	1	1	1	1
Calcium hydrogen sulphite	1	1	1	1	1	1
Calcium hydroxide	1	1	1	1	1	1
Calcium hypochlorite	1	1	1	1	1	1
Calcium nitrate (50%)	1	1	1	1		
Calcium nitrate	1	1	1	1	1	1
Calcium sulphate	1	1	1	1	1	1
Capric acid	1	1	1			
Caprylic acid	1	1	1	2		
Carbon dioxide, wet or dry	1	1	1	1	1	1
Carbon disulphide	1					
Carbon tetrachloride	1	1	1	1	1	1
Caustic soda (10%), Caustic soda (30%)	1	1	1	1		
Caustic soda (50%)	1	1	1	3		
Chlorine (50%)	1	1	1	1		
Chlorine dioxine (15%)	1	1	1			
Chlorine, dry	1	1	1	1		
Chlorine, wet	1	1	1	1		
(Mono-)chloroacetic acid (50%)	1	1	1	1		
(Mono-)chloroacetic acid (100%)	1	1	1	1		
Chlorobenzene	1	1	1	2		
Chlorodifluoromethane	1	1	1	1		
Chloroform	1	1	1	1		
Chlorosulphonic acid	1	1				
Chromic acid (50%)	1	1	2			
Chromyl chloride	1	1				
Citric acid (50%)	1	1	1	1	1	1
Coconut oil	1	1	1	1	1	1
Coke oven gas	1	1	1	1	1	1
Copper chloride	1	1	1	1	1	1
Copper cyanide	1	1	1	1	1	1
Copper fluoride	1	1	1	1	1	1
Copper nitrate	1	1	1	1	1	1

Chemicals	Temperature					
	20°C	50°C	70°C	100°C	110°C	120°C
Copper sulphate	1	1	1	1		
Corn oil	1	1	1	1	1	1
Credonaldehyde	1	1	1	1	1	1
Crude oil	1	1	1	1	1	1
Cyclohexane	1	1	1	1	1	1
Cyclohexanol	1	1	1	2		
Cyclohexanone	1	3	3	3		
Dextrine	1	1	1	1	1	
Diacetone alcohol	1	2	3	3		
Dichlorodiflourmethane	1	1	1	1		
Diesel fuel	1	1	1	1	1	1
Diethyl ether	1	2				
Diethylamine	1	3	3			
Diethylenetriamine	1	1	2	3		
Diglycolic acid	1					
Diisobutyl ketone	1	1	1	1		
Diisopropyl ether	1	1				
Dimethyl amine	3	3	3	3		
Dimethyl aniline	1	2	3	3	3	
Dimethyl formamide			3			
Dimethyl phthalate	1	2	3	3		
1, 4-Dioxane	3	3	3			
Epichlorohydrine	3	3				
Ethyl acetate	1	2	3	3		
Ethyl acrylate	1	2	3	3		
Ethyl alcohol	1	1	1	1	1	1
Ethyl chloride	1	1	1	1	1	1
Ethylene bromide (1,2-Dibromoethane)	1	1	1	1	1	1
Ethylene chloride (1,2-Dichloroethane)	1	1	1	1	1	1
Ethylene chlorohydrine	1	2	3	3		
Ethylene diamine	3	3				
Ethylene glycol	1	1	1	1	1	1
Ethylene oxide	1	1				
Fats (triglycerides of long or medium chain fatty acids)	1	1	1	1		
Fatty acids (long chain)	1	1	1	1	1	1
Fatty acids (medium chain)	1	1	1			
Fluoric acid (70%), hydrogen fluoride (100%)	1	1	1	1		
Fluoric acid (hydrogen fluoride) (35%)	1	1	1	1	1	1
Fluorine	1					
Formaldehyde (37%, Formalin, Wz)	1	1				
Formic acid	1	1	1	1	1	1
Fuel oil (EL)	1	1	1	1	1	1
Furane	3	3				
Furfurol	2	3	3	3		
Gallic acid	1	2				
Gear oil ARAL Energol HL 32	1	1				
Gear oil ARAL Montanol GM 220	1	1	1			
Gear oil BP Energol H-PC 220	1	1	1			
Gear oil Shell Tellus oil 32	1	1	1			
Gear oil Shell Tonna oil T 220	1	1	1			
Glucose	1	3				
Glycerin	1	1	1	1	1	1
1, 2-Glycol	1	2	2	3	3	3
Glycolic acid (hydroxyacetic acid)	1	1	1	1	1	1
Heptane	1	1	1	1	1	1
Hexamethyldisilazane (HMDS)	1	1	1	1	1	1
Hexane	1	1	1			
Hydrazine UDMH 50/50	1	1	1	1	1	
Hydrobromic acid	1	1	1	1	1	1
Hydrochloric acid (20%), hydrochloric acid (conc.)	1	1	1	1	1	1

Chemicals	Temperature					
	20°C	50°C	70°C	100°C	110°C	120°C
Hydrochloric acid (gaseous)	1	1	1	1	1	1
Hydrogen	1	1	1	1	1	1
Hydrogen cyanide	1	1	1	1	1	1
Hydrogen peroxide (30%)	1	1	1	1	1	1
Hydrogen peroxide (90%)	1					
Hydrogen phosphide	1	1				
Hydrogen sulphide, wet or dry	1	1	1	1	1	1
Hydroiodic acid (48% + 12%J2)	1	1	1	1	1	1
Hypochlorous acid	1	1	1	1	1	1
Iodine, wet; Iodine, dry	1	1	1	1	1	1
Iodoform	1	1	1	1		
Iron (II) chloride	1	1	1	1	1	1
Iron (II) nitrate, Iron (III) nitrate	1	1	1	1	1	1
Iron (II) sulphate, Iron (III) sulphate	1	1	1	1	1	1
Iron (III) chloride (50%)	1	1	1	1	1	1
Iron (III) sulphate (50%)	1	1	1	1		
Isooctane	1	1	1	1		
Jet fuel IP4 and IP5	1	1	1	1		
Kerosine	1	1	1	1		
Lactic acid	1	2	3	3		
Lauric acid	1	1	1	1	1	1
Lauryl chloride	1	1	1			
Lead acetate	1	1	1	1	1	1
Lead tetraethyl	1	1	1	1	1	1
Linoleic acid	1	1	1	1		
Linseed oil	1	1	1	2		
Magnesium carbonate	1	1	1	1		
Magnesium chloride	1	1	1	1		
Magnesium hydroxide	1	1	1	2		
Magnesium nitrate	1	1	1	1		
Magnesium sulphate	1	1	1			
Maleic acid	1	1	1	1		
Mercuric chloride	1	1	1	1	1	1
Mercuric cyanide	1	1	1	1	1	1
Mercuric nitrate	1	1	1	1	1	1
Mercury	1	1	1	1	1	1
Methane	1	1	1	1		
Methane sulphonic acid (50%)	1	1	1	1		
Methyl alcohol	1	1				
Methyl bromide	1	1	1	1	1	1
Methyl chloride	1	1	2			
Methyl ethyl ketone	3	3	3	3		
Methyl isobutyl ketone	1	2	3	3		
Methylene chloride	2	2				
Milk	1	1	1	1		
Mineral oil	1	1	1	1	1	
Mineral oil	1	1	1	1	1	1
Monoethanolamine	3	3				
Morpholine	2	3	3			
N, N-Dimethyl acetamide			3			
Naphtha	1	1	1	1	1	1
Naphthalene	1	1	1	2		
Natural gas	1	1	1	1	1	1
n-Butanol	1	1	1	1	1	1
n-Butyl amine	3	3				
n-Butyl bromide	1	1	1	1	1	1
n-Butyl chloride	1	1	1	1	1	1
n-Butyl mercaptane	1	1	1	1	1	1
Nickel chloride	1	1	1	1	1	1
Nickel nitrate	1	1	1	1	1	1

Chemicals	Temperature					
	20°C	50°C	70°C	100°C	110°C	120°C
Nickel sulphate	1	1	1	1	1	1
Nicotine	1	2	2			
Nicotinic acid	1	1	1	1	1	1
Nitrating acid	1	1	2			
Nitric acid (15%), Nitric acid (30%)	1	1	1	1		
Nitric acid (65%)	1	1	1			
Nitric acid (fuming)	2	2				
Nitrobenzene	1	2	3			
Nitrogen dioxide	1	1	1	1		
Nitromethane	2	3				
Nitrous acid	1	1	1	1		
N-Methylpyrrolidone			3			
Octane	1	1	1	1	1	1
Octene	1	1	1	1	1	1
o-Dichlorobenzene						
Oil (triglyceride)	1	1	1	1		
Oleic acid	1	1	1	1	1	1
Oleum	3					
Oxalic acid	1	1	2	3		
Oxygen	1	1	1	1	1	1
Ozone	1	1	1	1	1	1
Palmitic acid	1	1	1	1	1	1
Paraldehyde	1	1	1			
Perchloroethylene	1	1	1	1	1	1
Perchloric acid (10%)	1	1	1	1		
Perchloric acid (72%)	1	1				
Petrol (leaded)	1	1	1	1	1	1
Petrol (unleaded)	1	1	1	1	1	1
Phenol (10%)	1	1	1	1		
Phenol (100%)	1	1	1	2		
Phenylhydrazine	1	1				
Phosphoric acid (30%)	1	1	1	1	1	1
Phosphoric acid (85%)	1	1	1	1	1	
Phosphorous pentoxide	1	1	1	1		
Phosphorous trichloride	1	1	1	1		
Phthalic acid	1	1	1	1		
Picric acid	1					
Potassium bromide	1	1	1	1	1	1
Potassium carbonate	1	1	1	1	1	1
Potassium chlorate	1	1	1	1	1	
Potassium chloride	1	2	3	3		
Potassium cyanide	1	2	3	3		
Potassium dichromate	3	3				
Potassium hydroxide	1	2	2	3		
Potassium nitrate	1	1	1	1	1	1
Potassium permanganate	1	1	1	1	1	1
Potassium sulphate	1	1	1	1	1	1
Potassium sulphide	1	1	1	1	1	1
Potassium terrocyanide	3	3				
Propane	1	1	1	1	1	1
Propanol	1	1	2	3		
Propylene carbonate			3			
Propylene oxide	3					
Pyridine	3	3	3			
Pyrogalllic acid	1	1				
Salicylic acid	1	1	1	1		
sec-Butanol	1	1	1	1	1	1
sec-Butyl amine	3	3				
Silicon tetrachloride	1					
Silver cyanide	1	1	1	1	1	1

Chemicals	Temperature					
	20°C	50°C	70°C	100°C	110°C	120°C
Silver nitrate	1	1	1	1	1	1
Sodium acetate	1	1	1	1	1	1
Sodium benzoate	1	1	1	1	1	1
Sodium bicarbonate (Sodium hydrogen carbonate)	1	1	1	1	1	1
Sodium bisulphate (Sodium hydrogen sulphate)	1	1	1	1	1	1
Sodium bisulphite (Sodium hydrogen sulphite)	1	1	1	1	1	1
Sodium bromide	1	1	1	1	1	1
Sodium carbonate	1	1	1	1	1	1
Sodium carbonate (40%)	1	1	1			
Sodium chlorate	1	1	1	1	1	1
Sodium chloride	1	1	1	1	1	1
Sodium cyanide	1	1	1	1	1	1
Sodium fluoride	1	1	1	1	1	1
Sodium hypochloride	1	1	1	1	1	1
Sodium nitrate	1	1	1	1	1	1
Sodium nitrite	1	1	1	1	1	1
Sodium peroxide	1	1	1	1	1	1
Sodium phosphate	1	1	1	1	1	1
Sodium silicate	1	1	1	1	1	1
Sodium sulphate	1	1	1	1	1	1
Sodium sulphide	1	1	1	1	1	1
Sodium sulphite	1	1	1	1	1	1
Sodium thiosulphate	1	1	1	1	1	1
Stearic acid	1	1	1	1	1	1
Sulphur	1	1	1	1	1	1
Sulphur chloride	1					
Sulphur dichloride	1					
Sulphur dioxide	1	1	1	1		
Sulphur trioxide	3	3				
Sulphuric acid (50%)	1	1	1	1	1	
Sulphuric acid (60%)	1	1	1	1		
Sulphuric acid (80%)	1	1	1	1	1	2
Sulphuric acid (95%)	1	1	2	3		
Sulphuric acid (fuming/monohydrate)	3	3				
Sulphurous acid	1	1	1	1		
Synthesis gas	1	1	1	1	1	1
Tall oil	1	1	1	1	1	1
tert-Butanol	1	1	1	1	1	1
tert-Butyl amine	1	2	2	3		
Tetrachloroethylene	1	1	1	2		
Tetrahydrofuran	2	3				
Tetramethyl ammonium hydroxide (50%)	1	1	1	1		
Thionyl chloride	1	2				
Titanium tetrachloride	1	1				
Toluol	1	1	1	2		
Tributyl phosphate	1	1	1	1		
Trichloroacetic acid	1	2	3	3		
1.1.1-Trichloroethane	1	1	2			
Trichloroethylene	1	1	1	1	1	1
Trichlorofluoromethane	1	1	1	1		
Triethyl amine	1	1	2	3		
Urea (50%)	1	1	1	1	1	1
Vinyl acetate	1	1	1	1	1	1
Water, seawater	1	1	1	1	1	1
Xylol	1	1	1			
y-Butyrol acetone			3			
Zinc chloride (50%)	1	1	1	1	1	1
Zinc nitrate (50%)	1	1	1	1	1	1
Zinc sulphate (50%)	1	1	1	1	1	1

RectuPom chemical resistance

1 = resistant
2 = limited resistance
3 = not resistant

Weight increase < 3% or weight loss < 0.5% and/or decrease in tensile strength < 15%
Weight increase 3 - 8% or weight loss 0.5 - 3% and/or decrease in tensile strength 15 - 30%
Weight increase > 8% or weight loss > 3% and/or decrease in tensile strength > 30%

Chemicals	Temperature		Chemicals	Temperature		Chemicals	Temperature	
	20°C	50°C		20°C	50°C		20°C	50°C
Acetic acid (10%)*	1	1	Glycerin	1	1	Sodium bisulphite lye (pH 4.5)	3	3
Acetic acid (80%)	2	3	Glycol	1	1	Sodium carbonate (10%)	1	1
Acetone	1	2	Glycol/distilled water 48 : 52	1	1	Sodium chloride	1	1
Acetylene tetrabromide (10%)*	2	3	@Grisiron GBF 1 (5g to 100g H2O)	1	1	Sodium hydroxide (sodium lye, caustic soda)	1	1
Ammonia (10%)	1	1	Hydrochloric acid (10%)	3	3	Sodium hypochlorite (bleaching sol. about 12.5% active chlorine)	2	3
Ammonia (conc.)	1	1	Hydrogen peroxide (30%)*	1	3	Sodium nitrate @Hoechst (10%, pH 0.8)	1	1
Ammonium sulphate @Hoechst (10%, pH 5.8)	1	3	Hydroxycitronellal	1	1	Sodium o-phosphate, primary (10%)	1	1
Benzol	2	2	Ink (@Pelikan ink, blue-black)	1	3	Sodium o-phosphate, sec. (10%)	1	1
Butanol	1	1	Iron chloride (10%)	2	3	Sodium o-phosphate, tert. (10%)	1	1
Butyl acetate	1	2	Isopropyl alcohol	1	1	Soya oil	1	1
Butyraldehyde	2	2	JP 1 fuel (Shell)	1	1	Sulphur dioxide gas	3	3
Butyric acid (1%)*	1	1	JP 4 fuel (Shell)	1	1	Sulphuric acid (10%)*	1	3
Butyric acid (98)	2	2	Lactic acid (10%)*	1	2	Sulphuric acid (50%)	3	3
Calcium ammonium nitrate	1	1	Lactic acid (90%)*	1	3	Tetrahydrofuran	2	2
Calcium chloride (10%)	1	1	Lavender oil, finest	1	1	@Tetralin (Henkel)	1	2
Calcium nitrate @Hoechst (pH 6.4) (10%)	1	1	Lemongrass oil	1	1	Thiophene	2	2
Cananga oil	1	1	Methanol	1	1	Toluol	1	1
Carbon disulphide	1	1	Methyl acetate	2	2	Transformer oil (@Univolt 36, Esso)	1	1
Carbon tetrachloride	1	2	Methyl bromide	3	3	Trichlorethylene	2	2
CFC (partially halogenated)	3	3	Methyl ethyl ketone	2	2	Urine	1	1
CFC (perhalogenated)	1	1	Methyl glycol	2	2	Water, distilled	1	1
Chlorinated lime (approx. 10%)	3	3	Methyl glycol acetate	2	3	Xylol	1	1
Chlorobenzene	2	2	Methylene bromide	3	3			
Chloroethyl (DAB 6)	1	2	Methylene chloride, technical	3	3			
Chloroform	3	3	Methylisobutylketone	1	1			
Chromic acid (3%)	2	2	Methylisopropylketone	1	1			
@Complezal Type Blue 12+12+17+2 (10%, pH 5.8)	1	1	Mineral oil	1	1			
Citric acid (10%)	1	3	Mobil oil HD SAE 20 after 3000 km	1	1			
Clophen A 60 (Bayer)	1	1	Mobil oil SAE 20	1	1			
Coffee (@Nescafe)	1	1	Natural gas	1	1			
Copper sulphate (10%)	1	1	n-Hexane	1	1			
Developer solution 1:50 (pH 10.9) (@Rodinal Agfa)	1	1	Nickel sulphate (10%)	1	1			
Developer solution 1:100 (pH 10.4) (@Rodinal Agfa)	1	1	Nitric acid (10%)	3	3			
Dibutyl phthalate	1	1	Nitrogen phosphate @Hoechst (10%, pH 5.1)	1	1			
Diesel oil	1	1	Nitrous gases	3	3			
Dimethyl phthalate	1	2	Normal car petrol	1	1			
Diocetyl sebacate	1	1	Oil of cloves	1				
Dioxane	2	2	Olive oil	1	2			
Engine oil BP HP 20	1	1	Ozone	3	3			
Engine oil SAW 40 (Caltrex)	1	1	Peat water (pH 3.7)	1	1			
Ethanol (96%)	1	1	Perchloroethylene	1	2			
Ether (DAB 6)	1	1	@Persil 59 (5%, Henkel)	1	1			
Ethyl acetate	2	2	Petrol (BP 100-140°C)	1	1			
Ethyl glycol	1	2	Petrol with 15 ... 20% methanol	1	1			
Fixing bath solution (pH 5.4)	1	2	Petrol/benzol mixture (super grade petrol)	1	1			
Formaldehyde (40%)	1	1	Petroleum	1	1			
Formic acid (10%)*	1	3	Phenol	3	3			
Fuel oil EL	1	1	Phosphoric acid (25%)	1	3			
Galbanum resin	1		Potassium hydroxide (potash lye, caustic potash)	1	1			
@Genantin drinking water 1:1 (+1% @Donax C, Shell)	1		Potassium permanganate (10%)*	1	1			
Glacial acetic acid	2	3	Seawater (North Sea)	1	1			
			Sodium bicarbonate (10%)	1	1			

* Because of the acid or oxidizing nature of these chemicals, practical trials are recommended before prolonged contact with Rectus products.

The results were obtained using injection-moulded, 1 mm thick test samples after a test duration of 60 days. During this, the test samples were under the influence of no external tension.

TEESING

WE MAKE YOUR TECHNOLOGY WORK

Resistance table for O-rings

1 = resistant
2 = limited resistance
3 = not resistant

Chemicals	Seals		
	NBR	EPDM	FKM
Acetone	3	1	3
Acetylene gas	1	1	1
Alcohol	2	1	1
Alkalis	1	1	3
Aluminium sulphate	1	1	1
Ammonia, liquid	2	1	2
Ammonium hydroxide	1	1	3
Aniline	3	2	1
Anol	2	3	1
Argon gas	1	1	1
ATE Brake fluid	3	1	3
Beer	1	1	1
Benzol	2	3	1
Borax	1	1	1
Boric acid	1	1	1
Brine lye	3	3	1
Butane gas	1	2	1
Butanone	3	1	3
Butyl benzoate	3	1	1
Camphor	1	3	2
Carbolic acid	3	3	1
Carbon dioxide	1	1	1
Carbonic acid gas	1	1	1
Caustic soda	3	3	1
Chlorine	3	1	2
Chromic acid	3	2	1
Citric acid	2	1	1
Citrus oils	2	1	3
Coal gas	3	3	1
Coconut oil	1	3	1
Coke oven gas	1	3	3
Cooling water	2	1	1
Cresol	3	3	1
Diesel oil	1	3	1
Dioxane	3	2	3
Diphenyl	3	3	1
Dodecanol	2	2	2
Ether	1	2	2
Ethyl alcohol	2	1	1
Ethyl alcohol	2	1	2
Ethylene gas	1	3	1
Fatty acids	2	3	2
Fish oil	1	2	1
Fluorine	3	3	2
Formaldehyde	2	2	1
Formic acid	3	1	1
Freon 11	1	3	2
Freon 12	2	2	2
Fuel oil	1	3	1
Gallic acid	2	2	1
Gasoline	2	3	1
Gear oil	1	3	1
Glucose	1	1	1
Glycerin	1	1	1

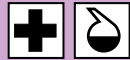
Chemicals

Seals

	NBR	EPDM	FKM
Glycol	1	1	3
Helium gas	1	1	1
Hexane	1	3	1
Hot air up to 120°C	3	1	1
Hot air up to 200°C	3	3	1
Hydraulic oil	3	1	1
Hydrocarbon	1	3	1
Hydrogen	1	3	1
Hydrogen cyanide	2	2	1
Hydrogen sulphide, dry	3	2	1
Hydrosulphide	2	1	1
Iodine, Iodine tincture	2	2	1
Iron chloride	1	1	1
Iron nitrate	1	1	1
Isooctane	1	3	1
Lanolin	1	3	1
Lead acetate	1	2	1
Linseed oil	1	3	1
Lubricating oil	1	2	1
Magnesium sulphate (Epsom salt)	2	1	1
Mains gas	1	3	1
Mercury (Hydrargyrum)	1	1	1
Methane gas	2	3	1
Methanol	1	1	3
Methy alcohol	3	1	3
Milk	1	2	3
Mine gas	1	3	1
Mineral oil	1	3	3
Mineral oil	1	3	1
Naphtalene (stone oil)	3	3	1
Natural gas	1	2	1
Nitric acid up to 35%	3	1	2
Nitrogen	1	1	1
Nitrous oxide (laughing gas)	1	2	1
Oxygen, cold	2	1	1
Pararffin	1	3	1
Petrol	3	3	1
Petroleum	1	3	1
Potash lye	2	1	2
Potassium cyanide	3	1	1
Potassium sulphate	1	1	1
Propane gas	1	3	1
Salt solutions	1	3	3
Seawater	1	1	1
Silicic acid	1	1	1
Sodium sulphide	3	1	1
Steam up to 150°C	3	1	2
Steam up to 250°C	3	FFKM	2
Synthetic resin thinner (no nitrosolvent)	3	3	1
Tar	1	3	3
Trichloroethylene	3	3	2
Urea	1	1	1
Varnish	2	3	1
Vinegar, acetic acid	3	1	3
Water above 80°C	3	1	1
Water up to 80°C	1	1	1
Water, demineralised	3	1	3
Water, distilled	2	1	1
Xylol	3	3	2
Yeast	1	1	1

Nominal Diameter

3 = 7 mm²



Rectus Series

PPM



Plastic coupling in nominal diameter 3 mm. The system is particularly suited to use with weak alkalis and acids. The coupling stands out for its light weight and intuitive operation. Secure sealing is indicated by an audible click.

Working Temperature
-40°C up to +82°C



Working Pressure**
0-8 bar
** maximum static working pressure with design factor 4 to 1.

0-8 bar

0-8 bar

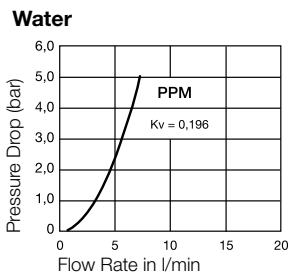
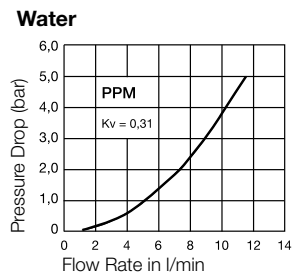
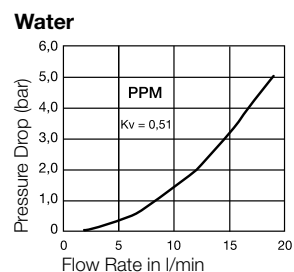
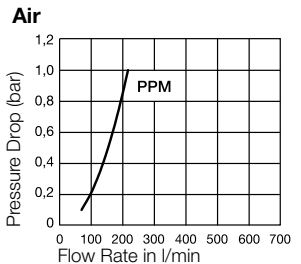
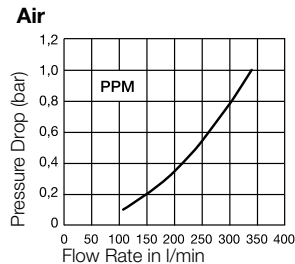
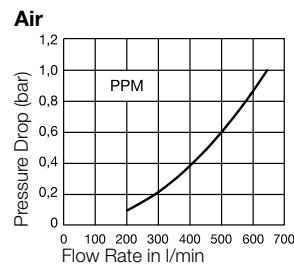
Material

Coupling: Acetal (POM), natural color, USP Class VI
Plug: Acetal (POM), natural color, USP Class VI
Seals: NBR

Coupling: Acetal (POM), natural color, USP Class VI
Plug: Acetal (POM), natural color, USP Class VI
Seals: NBR

Coupling: Acetal (POM), natural color, USP Class VI
Plug: Acetal (POM), natural color, USP Class VI
Seals: NBR

Flow diagrams





Couplings – without valve

Series PPM

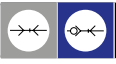
	Connection A	W mm	L mm	H mm	Part Number
<p>Male Thread</p>	1/8" BSPT	15,7	25,4	20,3	PPM-123-2MBT
	1/4" BSPT	15,7	27,9	20,3	PPM-123-4MBT
<p>Hose Barb</p>	3,2 mm	15,7	41,9	20,3	PPM-123-2HB
<p>Panel Mount with Hose Barb</p>	6,0 mm	15,7	45,7	20,3	PPM-123-H4HB



Couplings – with valve

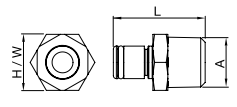
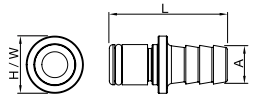
Series PPM

	Connection A	W mm	L mm	H mm	Part Number
<p>Hose Barb</p>	3,2 mm	15,7	41,9	20,3	PPM-121-2HB
	4,8 mm	15,7	43,7	20,3	PPM-121-3HB
	6,0 mm	15,7	45,7	20,3	PPM-121-4HB
<p>Panel Mount with Hose Barb</p>	1,6 mm	15,7	38,1	20,3	PPM-121-H1HB
	4,8 mm	15,7	43,7	20,3	PPM-121-H3HB



Plugs – without valve

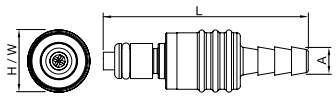
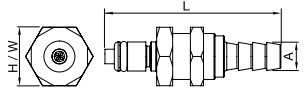
Series PPM

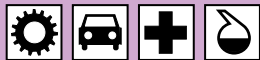
	Connection A	W mm	L mm	H mm	Part Number
 <p>Male Thread</p>	1/8" BSPT	12,4	26,2	12,4	PPM-124-2MBT
 <p>Hose Barb</p>	3,2 mm	12,7	24,6	12,7	PPM-124-2HB
	4,8 mm	12,7	26,4	12,7	PPM-124-3HB
	6,0 mm	12,7	28,4	12,7	PPM-124-4HB



Plugs – with valve

Series PPM

	Connection A	W mm	L mm	H mm	Part Number
 <p>Hose Barb</p>	3,2 mm	14,0	41,9	14,0	PPM-122-2HB
	6,0 mm	14,0	45,7	14,0	PPM-122-4HB
 <p>Panel Mount with Hose Barb</p>	3,2 mm	15,7	43,9	15,7	PPM-122-H2HB

5 = 20 mm²

21

**Other designs in series 21**

The following other designs can be found from page:

- ▶ Brass / Steel P. 26
- ▶ Stainless Steel P. 140
- ▶ Safety P. 210
- ▶ Coded Systems P. 234

Mini industrial coupling in plastics POM and PVDF with the world's most popular profile in this nominal diameter. Above average flow performance for liquid and gaseous media.

Coupling system with single-hand operation. This new type of plastic locking system with handy sleeve considerably expands the applications of this series. Two sleeve forms - tapered and cylindrical, where the tapered sleeve form facilitates handling with gloves. The color coding of the coupling and plug offers a guarantee for avoiding mix-ups between media when coupling.

Working Temperature

-20°C up to +80°C (POM)
-20°C up to +120°C (PVDF)
depending on the medium.

Other seal variants are available on request (FKM, EPDM, FFKM).

RectuPOM**RectuChem****Working Pressure****

10 bar (POM, at 20°C)
** maximum static working pressure with design factor 4 to 1.

8 bar (PVDF, at 20°C)

Material

Coupling: POM black
Plug: POM black
Seals: NBR

Coupling: PVDF white
Plug: PVDF white
Seals: FKM

Technical Description

Connecting Force 0 bar (KA): 35 N
Connecting Force 6 bar (KA): 60 N

Connecting Force 0 bar (KA): 35 N
Connecting Force 6 bar (KA): 60 N

Dead space volume (KB): 0,6 ml
Connecting Force 0 bar (KB): 40 N
Connecting Force 6 bar (KB): 80 N

Dead space volume (KB): 0,6 ml
Connecting Force 0 bar (KB): 40 N
Connecting Force 6 bar (KB): 80 N

Valve types

single shut-off



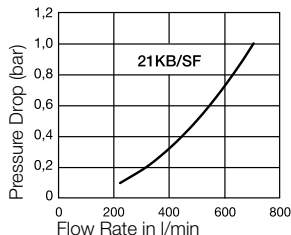
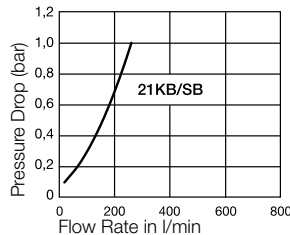
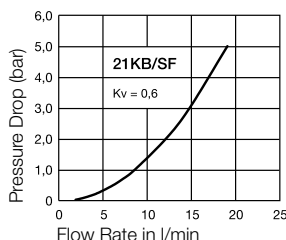
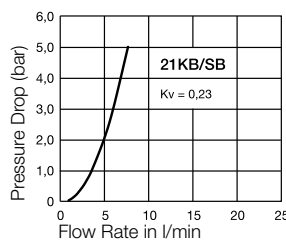
single shut-off



double shut-off



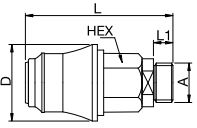
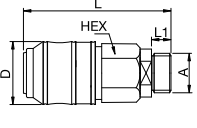
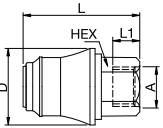
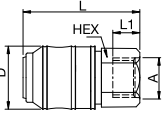
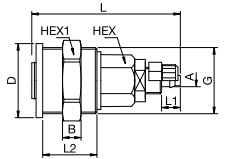
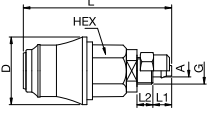
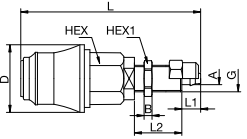
double shut-off

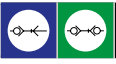
Flow diagrams**Air****Air****Water****Water**



Couplings – with valve

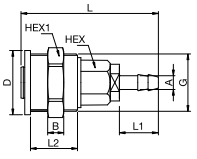
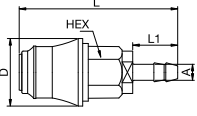
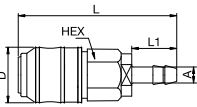
Series 21KB

	Connection A	HEX mm	HEX1 mm	L mm	L1 mm	L2 mm	D mm	B mm	G mm	Color Sleeve	Part Number POM	Part Number CHEM
 <p>Male Thread with tapered sleeve</p>	G 1/8	17		50	7		25,5			Standard	21KBAW10DPX	21KBAW10FVX
	G 1/4	17		50	7		25,5			Standard	21KBAW13DPX	21KBAW13FVX
 <p>Male Thread with cylindrical sleeve</p>	G 1/4	17		50	7		21			blue		21KBAW13FVXGB
	G 1/4	17		50	7		21			green		21KBAW13FVXGG
	G 1/4	17		50	7		21			red		21KBAW13FVXGR
	G 1/4	17		50	7		21			yellow		21KBAW13FVXGY
 <p>Female Thread with tapered sleeve</p>	G 1/8	17		53	8		25,5			Standard	21KBIW10DPX	
	G 1/4	17		39	9		25,5			Standard	21KBIW13DPX	21KBIW13FVX
 <p>Female Thread with cylindrical sleeve</p>	G 1/4	17		39	9		21			Standard	21KBIW13DPXG	
	G 1/4	17		39	9		21			blue	21KBIW13DPXGB	21KBIW13FVXGB
	G 1/4	17		39	9		21			green	21KBIW13DPXGG	21KBIW13FVXGG
	G 1/4	17		39	9		21			red	21KBIW13DPXGR	21KBIW13FVXGR
	G 1/4	17		39	9		21			yellow	21KBIW13DPXGY	21KBIW13FVXGY
 <p>Panel Mount for Plastic Hose Connection for Front Panel Installation</p>	4 x 6 mm	17	27	56	7	20,5	28	7	M 25 x 1	Standard	21KBKE06DPX	
	6 x 8 mm	17	27	56	7	20,5	28	7	M 25 x 1	Standard	21KBKE08DPX	
 <p>with Plastic Hose Connection with tapered sleeve</p>	4 x 6 mm	17		56	6	7	25,5		M 10 x 1	Standard	21KBKO06DPX	21KBKO06FVX
	6 x 8 mm	17		56	6	7	25,5		M 12 x 1	Standard	21KBKO08DPX	21KBKO08FVX
 <p>Panel Mount with Plastic Hose Connection with tapered sleeve</p>	4 x 6 mm	17	14	68	7	18	25,5	4	M 10 x 1	Standard	21KBKS06DPX	
	6 x 8 mm	17	17	68	7	18	25,5	4	M 12 x 1	Standard	21KBKS08DPX	



Couplings – with valve

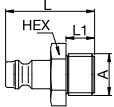
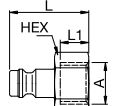
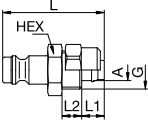
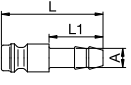
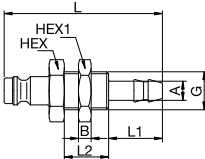
Series 21KB

	Connection A	HEX mm	HEX1 mm	L mm	L1 mm	L2 mm	D mm	B mm	G mm	Color Sleeve	Part Number POM	Part Number CHEM
 <p>Panel Mount for Hose Barb for Front Panel Installation</p>	6 mm	17	27	60	17	20,5	28	7	M 25 x 1	Standard	21KBTE06DPX	21KBTE06FVX
 <p>Hose Barb with tapered sleeve</p>	4 mm	17		60	17		25,5			Standard	21KBTF04DPX	21KBTF04FVX
	6 mm	17		60	17		25,5			Standard	21KBTF06DPX	21KBTF06FVX
 <p>Hose Barb with cylindrical sleeve</p>	6 mm	17		60	17		21			Standard	21KBTF06DPXG	
	6 mm	17		60	17		21			blue	21KBTF06DPXGB	
	6 mm	17		60	17		21			green	21KBTF06DPXGG	
	6 mm	17		60	17		21			red	21KBTF06DPXGR	
	6 mm	17		60	17		21			yellow	21KBTF06DPXGY	



Plugs – without valve

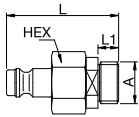
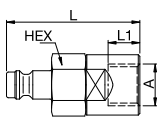
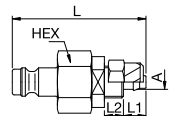
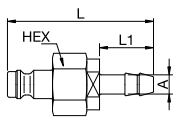
Series 21SF

	Connection A	HEX mm	HEX1 mm	L mm	L1 mm	L2 mm	D mm	B mm	G mm	Color Sleeve	Part Number POM	Part Number CHEM
 Male Thread	G 1/8	14		25	7					Standard		21SFAW10FXX
	G 1/4	17		28	9					Standard		21SFAW13FXX
 Female Thread	G 1/8	14		24	8					Standard		21SFIW10FXX
	G 1/4	17		25	9					Standard	21SFIW13DXX	21SFIW13FXX
	G 1/4	17		25	9					blue		21SFIW13FXXB
	G 1/4	17		25	9					green		21SFIW13FXXG
	G 1/4	17		25	9					red		21SFIW13FXXR
 with Plastic Hose Connection	4 x 6 mm	14		32	7	6			M 10 x 1	Standard	21SFKO06DXX	21SFKO06FXX
	6 x 8 mm	14		32	7	6			M 12 x 1	Standard	21SFKO08DXX	
 Hose Barb	4 mm			32	17					Standard	21SFTF04DXX	21SFTF04FXX
	6 mm			32	17					Standard	21SFTF06DXX	21SFTF06FXX
	6 mm			32	17					blue	21SFTF06DPXB	21SFTF06FVXB
	6 mm			32	17					green	21SFTF06DPXG	21SFTF06FVXG
	6 mm			32	17					red	21SFTF06DPXR	21SFTF06FVXR
 Panel Mount with Hose Barb	4 mm	14	14	50	17	14		4	M 10 x 1	Standard	21SFTS04DXX	
	4 mm	14	14	50	17	14		4	M 10 x 1	blue		21SFTS04FVXB
	4 mm	14	14	50	17	14		4	M 10 x 1	green		21SFTS04FVXG
	4 mm	14	14	50	17	14		4	M 10 x 1	red		21SFTS04FVXR
	4 mm	14	14	50	17	14		4	M 10 x 1	yellow		21SFTS04FVXY
	6 mm	14	17	50	17	14		4	M 12 x 1	Standard	21SFTS06DXX	

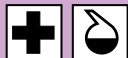


Plugs – with valve

Series 21KB

	Connection A	HEX mm	HEX1 mm	L mm	L1 mm	L2 mm	D mm	B mm	G mm	Color Sleeve	Part Number POM	Part Number CHEM
 <p>Male Thread</p>	G 1/8	17		36	7					Standard	21SBAW10DPX	
	G 1/8	17		36	7					blue	21SBAW10DPXB	
	G 1/8	17		36	7					green	21SBAW10DPXG	
	G 1/8	17		36	7					red	21SBAW10DPXR	
	G 1/8	17		36	7					yellow	21SBAW10DPXY	
	G 1/4	17		38	7					Standard	21SBAW13DPX	21SBAW13FVX
	G 1/4	17		38	7					blue		21SBAW13FVXB
	G 1/4	17		38	7					green		21SBAW13FVXG
	G 1/4	17		38	7					red		21SBAW13FVXR
	G 1/4	17		38	7					yellow		21SBAW13FVXY
 <p>Female Thread</p>	G 1/4	17		42	10					Standard	21SBIW13DPX	21SBIW13FVX
 <p>with Plastic Hose Connection</p>	4 x 6 mm	17		42	7	6				Standard	21SBKO06DPX	21SBKO06FVX
	6 x 8 mm	17		42	7	6				Standard	21SBKO08DPX	21SBKO08FVX
 <p>Hose Barb</p>	4 mm	17		46	17					Standard	21SBTF04DPX	
	6 mm	17		46	17					Standard		21SBTF06FVX
	6 mm	17		46	17					blue	21SBTF06DPXB	21SBTF06FVXB
	6 mm	17		46	17					green	21SBTF06DPXG	21SBTF06FVXG
	6 mm	17		46	17					red	21SBTF06DPXR	21SBTF06FVXR
	6 mm	17		46	17					yellow	21SBTF06DPXY	21SBTF06FVXY

Nominal Diameter

6 = 28 mm²

Rectus Series

PPL

Low Pressure

**Technical Description**

Plastic coupling in nominal diameter 6 mm. The system is particularly suited to use with weak alkalis and acids. The coupling stands out for its light weight and intuitive operation. Secure sealing is indicated by an audible click.

Working Temperature

-40°C up to +82°C

**KF** Straight-Through**Working Pressure****

0-8 bar

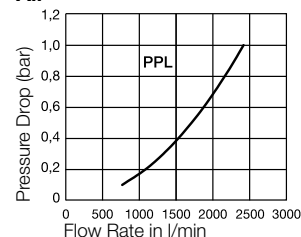
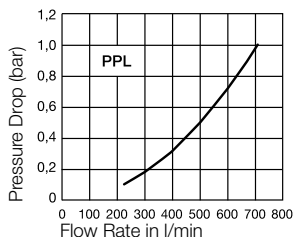
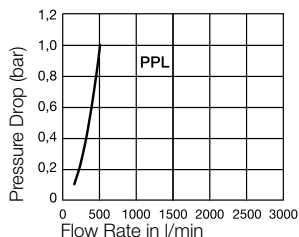
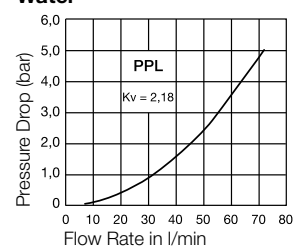
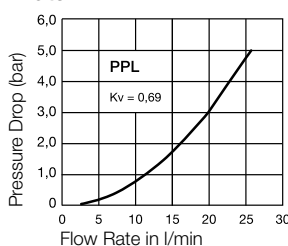
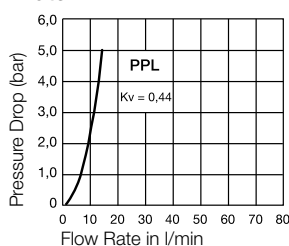
** maximum static working pressure with design factor 4 to 1.

Material**Coupling:** Acetal (POM), natural color, USP Class VI**Plug:** Acetal (POM), natural color, USP Class VI**Seals:** NBR**KA** Single Shut-Off

0-8 bar

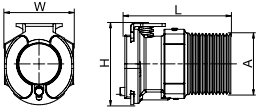
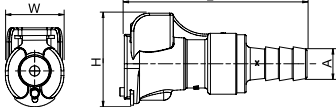
Coupling: Acetal (POM), natural color, USP Class VI**Plug:** Acetal (POM), natural color, USP Class VI**Seals:** NBR**KB** Double Shut-Off

0-8 bar

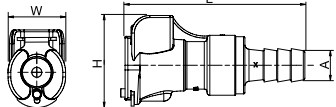
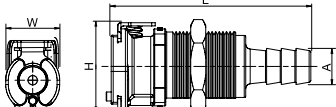
Coupling: Acetal (POM), natural color, USP Class VI**Plug:** Acetal (POM), natural color, USP Class VI**Seals:** NBR**Flow diagrams****Air****Air****Air****Water****Water****Water****TEESING**

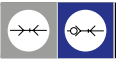
WE MAKE YOUR TECHNOLOGY WORK

Couplings – without valve **Series PPL**

	Connection A	W mm	L mm	H mm	Part Number
 <p>Male Thread</p>	3/8" BSPT	19,1	29,2	23,6	PPL-253-6MBT
 <p>Hose Barb</p>	10 mm	19,1	48,3	23,6	PPL-253-6HB

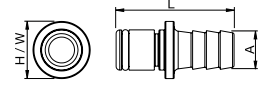
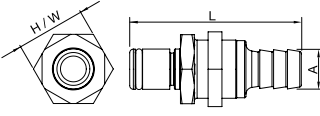
Couplings – with valve **Series PPL**

	Connection A	W mm	L mm	H mm	Part Number
 <p>Hose Barb</p>	6 mm	19,1	48,3	23,6	PPL-251-4HB
	10 mm	19,1	48,3	23,6	PPL-251-6HB
 <p>Panel Mount with Hose Barb</p>	10 mm	19,1	48,3	23,6	PPL-251-H6HB



Plugs – without valve

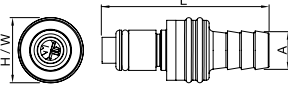
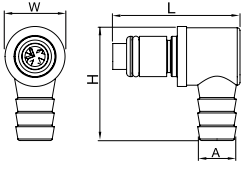
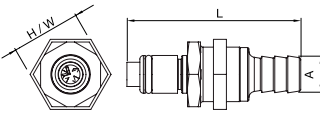
Series PPL

	Connection A	W mm	L mm	H mm	Part Number
 <p>Hose Barb</p>	6 mm	15,7	31,8	15,7	PPL-254-4HB
	8 mm	15,7	31,8	15,7	PPL-254-5HB
	10 mm	15,7	31,8	15,7	PPL-254-6HB
 <p>Panel Mount with Hose Barb</p>	6 mm	18,8	47,8	18,8	PPL-254-H4HB
	10 mm	18,8	47,8	18,8	PPL-254-H6HB



Plugs – with valve

Series PPL

	Connection A	W mm	L mm	H mm	Part Number
 <p>Hose Barb</p>	6 mm	17,8	49,3	17,8	PPL-252-4HB
	10 mm	17,8	46,5	17,8	PPL-252-6HB
 <p>Hose Barb 90°</p>	10 mm	15,7	27,9	32,5	PPL-252-C6HB
 <p>Panel Mount with Hose Barb</p>	10 mm	18,8	50,8	18,8	PPL-252-H6HB

7 = 38 mm²

48








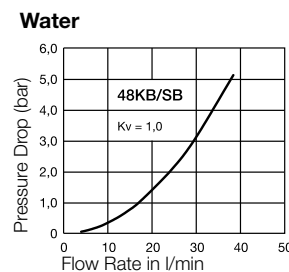
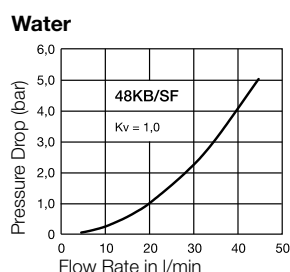
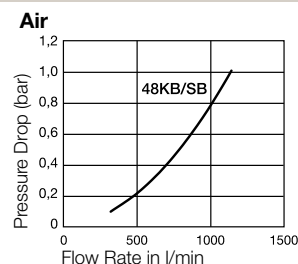
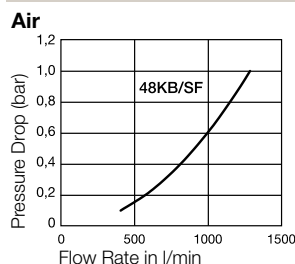
Coupling series made of POM and PVDF has been developed for use in the medical, chemical, food handling, pharmaceutical and laboratory technology industries. The system is also available in a solid plastic design (RectuChem+). Here the metal springs are replaced by springs made of PEEK, an extremely resistant synthetic material. Coupling system with single-hand operation. The color coding of the coupling and plug offers a guarantee for avoiding mix-ups between media when coupling. The coupling is also available with no valve for a straight-through system.

Working Temperature

-20°C up to +80°C (POM)
-20°C up to +120°C (PVDF)
depending on the medium.

Other seal variants are available on request (FKM, EPDM, FFKM).

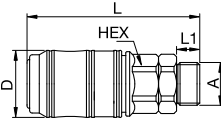
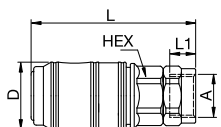
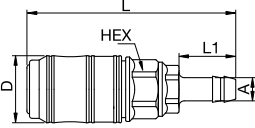
RectuPOM	RectuChem	RectuChem+
Working Pressure**		
0-10 bar (POM, at 20°C) ** maximum static working pressure with design factor 4 to 1.	0-8 bar (PVDF, with metal springs)	1-8 bar (PVDF, with PEEK-spring)
Material		
Coupling: POM black Plug: POM black Seals: NBR	Coupling: PVDF white Plug: PVDF white Seals: FKM	Coupling: PVDF white, PEEK-spring Plug: PVDF white, PEEK-spring Seals: FKM
Technical Description		
Connecting Force 0 bar (KA): 40 N Connecting Force 6 bar (KA): 100 N Vacuum Coupling (KA): 87% Vacuum connected (KA): 87%	Connecting Force 0 bar (KA): 40 N Connecting Force 6 bar (KA): 100 N Vacuum Coupling (KA): 87% Vacuum connected (KA): 87%	Connecting Force 0 bar (KA): 40 N Connecting Force 6 bar (KA): 100 N Vacuum Coupling (KA): 87% Vacuum connected (KA): 87%
Dead space volume (KB): 0,9 ml Connecting Force 0 bar (KB): 60 N Connecting Force 6 bar (KB): 120 N	Dead space volume (KB): 0,9 ml Connecting Force 0 bar (KB): 60 N Connecting Force 6 bar (KB): 120 N	Dead space volume (KB): 0,9 ml Connecting Force 0 bar (KB): 60 N Connecting Force 6 bar (KB): 120 N
Valve types		
 single shut-off	 single shut-off	
 double shut-off	 double shut-off	 double shut-off

Flow diagrams



Couplings – with valve

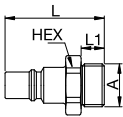
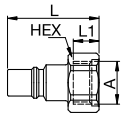
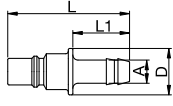
Series 48KB

	Connection A	HEX mm	L mm	L1 mm	D mm	Color Sleeve	Part Number POM	Part Number CHEM	Part Number CHEM+
 <p>Male Thread</p>	G 1/4	21	70,5	9	26	Standard	48KBAW13DPX		
	G 3/8	21	67	9	26	Standard	48KBAW17DPX	48KBAW17FVX	48KBAW17FVP
	G 1/2	21	73,5	12	26	Standard	48KBAW21DPX	48KBAW21FVX	
 <p>Female Thread</p>	G 1/4	21	63,5	10	26	Standard	48KBIW13DPX	48KBIW13FVX	48KBIW13FVP
	G 3/8	21	63,5	13	26	Standard	48KBIW17DPX	48KBIW17FVX	48KBIW17FVP
	G 3/8	21	63,5	13	26	blue	48KBIW17DPXB	48KBIW17FVXB	
	G 3/8	21	63,5	13	26	green	48KBIW17DPXG	48KBIW17FVXG	
	G 3/8	21	63,5	13	26	red	48KBIW17DPXR	48KBIW17FVXR	
	G 3/8	21	63,5	13	26	yellow	48KBIW17DPXY	48KBIW17FVXY	
 <p>Hose Barb</p>	6 mm	21	81	22	26	Standard			48KBTf06FVP
	9 mm	21	81	22	26	Standard	48KBTf09DPX	48KBTf09FVX	48KBTf09FVP
	13 mm	21	84	25	26	Standard	48KBTf13DPX	48KBTf13FVX	



Plugs – without valve

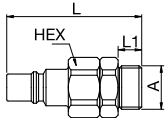
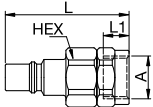
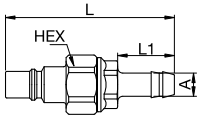
Series 48SF

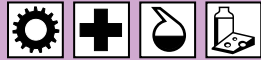
	Connection A	HEX mm	L mm	L1 mm	D mm	Color Sleeve	Part Number POM	Part Number CHEM	Part Number CHEM+
 <p>Male Thread</p>	G 1/4	17	38,5	9		Standard	48SFAW13DXX	48SFAW13FXX	
	G 3/8	21	38,5	9		Standard	48SFAW17DXX	48SFAW17FXX	
	G 1/2	21	41,5	12		Standard		48SFAW21FXX	
 <p>Female Thread</p>	G 1/4	17	35,5	9		Standard	48SFIW13DXX		
	G 3/8	21	35,5	10		Standard	48SFIW17DXX	48SFIW17FXX	
	G 3/8	21	35,5	10		blue	48SFIW17DXXB	48SFIW17FXXB	
	G 3/8	21	35,5	10		green	48SFIW17DXXG	48SFIW17FXXG	
	G 3/8	21	35,5	10		red	48SFIW17DXXR	48SFIW17FXXR	
	G 3/8	21	35,5	10		yellow	48SFIW17DXXY	48SFIW17FXXY	
	G 1/2	24	59	13		Standard	48SFIW21DXX		
 <p>Hose Barb</p>	6 mm		47	22	18	Standard		48SFTf06FXX	
	9 mm		47	22	18	Standard	48SFTf09DXX	48SFTf09FXX	
	13 mm		50	25	18	Standard	48SFTf13DXX	48SFTf13FXX	



Plugs – with valve

Series 48SB

	Connection A	HEX mm	L mm	L1 mm	D mm	Color Sleeve	Part Number POM	Part Number CHEM	Part Number CHEM+
 <p>Male Thread</p>	G 1/4	21	55	9		Standard	48SBAW13DPX		48SBAW13FVP
	G 3/8	21	51,5	9		Standard	48SBAW17DPX	48SBAW17FVX	
 <p>Female Thread</p>	G 1/4	21	48	10		Standard	48SBIW13DPX		
	G 3/8	21	48	10		Standard	48SBIW17DPX		48SBIW17FVP
	G 3/8	21	48	10		blue	48SBIW17DPXB		
	G 3/8	21	48	10		green	48SBIW17DPXG		
	G 3/8	21	48	10		red	48SBIW17DPXR		
	G 3/8	21	48	10		yellow	48SBIW17DPXY		
	G 1/2	21	59	13		Standard		48SBIW21FVX	
	G 1/2	21	59	13		blue		48SBIW21FVXB	
	G 1/2	21	59	13		green		48SBIW21FVXG	
	G 1/2	21	59	13		red		48SBIW21FVXR	
 <p>Hose Barb</p>	6 mm	21	65,5	22		Standard	48SBTF06DPX		
	9 mm	21	65,5	22		Standard	48SBTF09DPX	48SBTF09FVX	
	9 mm	21	65,5	22		blue		48SBTF09FVXB	
	9 mm	21	65,5	22		green		48SBTF09FVXG	
	9 mm	21	65,5	22		red		48SBTF09FVXR	
	9 mm	21	65,5	22		yellow		48SBTF09FVXY	
	13 mm	21	68,5	25		Standard	48SBTF13DPX	48SBTF13FVX	48SBTF13FVP



Coupling range in sizes from 1/8" to 1 1/2" with plug profile in accordance with ISO 7241-1 series B. Particularly suitable for use with liquid media. Coupling system with two-hand operation, i.e. the locking sleeve must be pushed back manually when coupling. The coupling range stands out for its high flow rates against a low pressure drop. 1 1/2" design (series 77) with locking pin and EPDM seal.

Working Temperature*

-20°C up to +90°C (NBR)
-40°C up to +90°C (EPDM)
depending on the medium.

* For temperatures below -20°C and over +90°C and depending on the medium, other seal variants (FKM, FFKM) are available.

**Working Pressure****

see chart

** maximum static working pressure with design factor 4 to 1.

Material

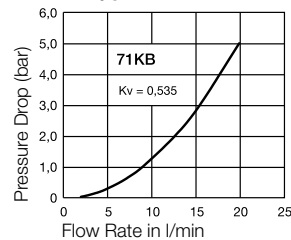
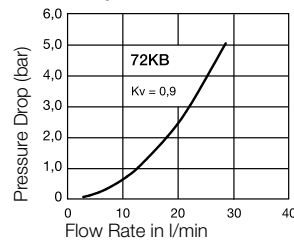
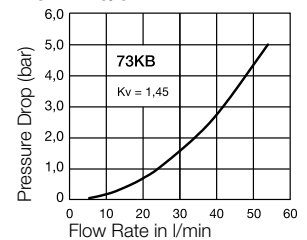
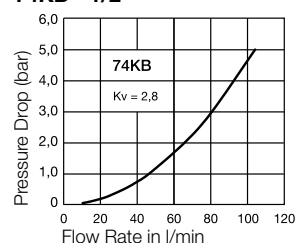
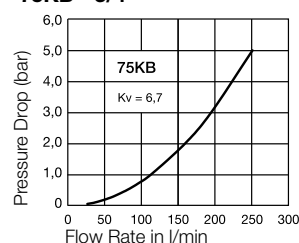
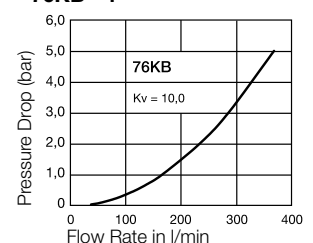
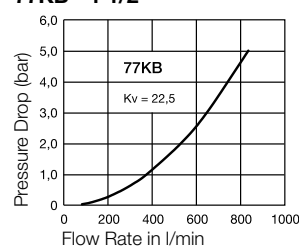
Coupling: POM white
Plug: POM white
Seals: NBR

Interchangeability

• ISO 7241-1 Series B

Technical Description

See Rectus series 70 - brass/steel from page 126

Flow diagrams Water**71KB - 1/8"****72KB - 1/4"****73KB - 3/8"****74KB - 1/2"****75KB - 3/4"****76KB - 1"****77KB - 1 1/2"****Other designs in series 70**

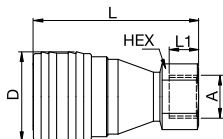
The following other designs can be found from page:

- Brass / Steel P. 126
- Stainless Steel P. 164



Couplings – with valve

Series 70KB



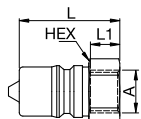
Female Thread

Size	Connection A	HEX mm	HEX1 mm	L mm	L1 mm	L2 mm	D mm	B mm	Working Pressure max. / bar	Part Number
1/4"	G 1/4	19		57,5	10		28,5		15	72KBIW13DPX
3/8"	G 3/8	22		64	11,5		35		15	73KBIW17DPX
1/2"	G 1/2	27		76	16		44,5		10	74KBIW21DPX
3/4"	G 3/4	34		96	24		55		10	75KBIW26DPX
1"	G 1	41		105,5	24		62		10	76KBIW33DPX
1 1/2"	G 1 1/2	60		133	23		76		10	77KBIW48DEXS



Plugs – with valve

Series 70KB



Female Thread

Size	Connection A	HEX mm	HEX1 mm	L mm	L1 mm	L2 mm	D mm	B mm	Working Pressure max. / bar	Part Number
1/4"	G 1/4	19		35	10				15	72SBIW13DPX
3/8"	G 3/8	22		39	11,5				15	73SBIW17DPX
1/2"	G 1/2	27		48	16				10	74SBIW21DPX
3/4"	G 3/4	36		60	24				10	75SBIW26DPX
1"	G 1	41		56	24				10	76SBIW33DPX
1 1/2"	G 1 1/2	60		132	23				10	77SBIW48DEX