

SURPASS



Quick Connector Series for high purity chemicals



We suggest total solution of chemicals transportation that customer will be satisfied with.

The ultimate connector, which enables to prevent liquid leaking, has made Quick connector increased safety. You can choose the one from various types of Quick connectors according to containers used for chemicals depending on their usage and purpose.

Caution -----

- OPlease acknowledge that product might be different from photograph on the catalog.
- The data described in the catalog is a reference value, not a guarantee value.
- O It is likely to crack or split depending on chemicals, so please carefully select material or please contact us.

Applications

- O High purity chemical container for semiconductor and liquid crystal
 - Biochemical Nanotechnology Medical device
- Plastic drum for chemical supply Environmental equipment
- O Chemical supply system

Semiconductor manufacturing equipment

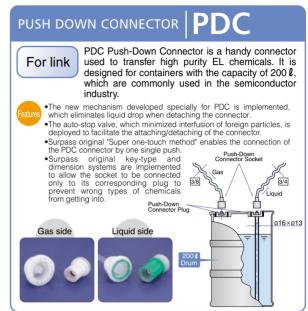
Features

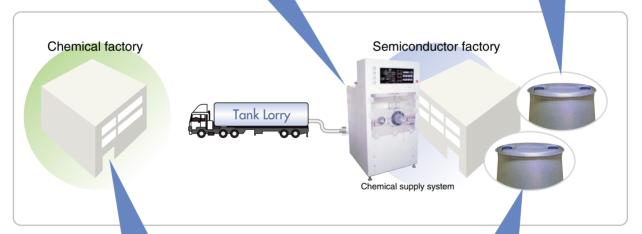
- Ouick connector can be furnished on a variety of containers such as small container, tank lorry and ISO container, and so on. Besides, the connector can make chemical supply stable.
- There is a option of body materials such as fluorine resin and polyethylene to meet cost and applications.



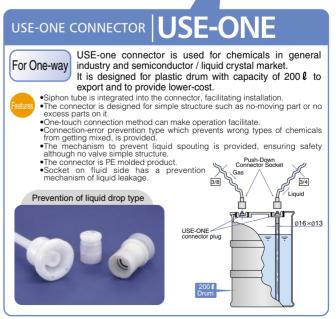
Total coordinate













Model selection Table

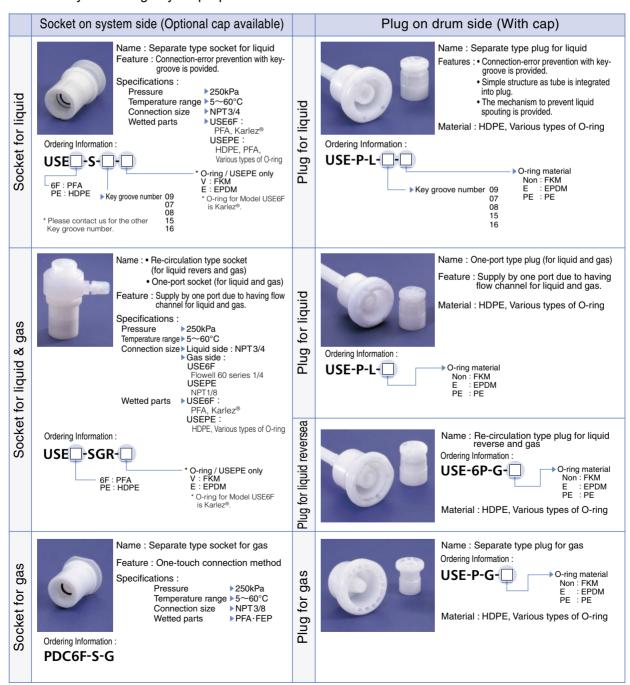
	Model	Size	Body material	Feature/General	Reference application	Connection type	Prevening miss-connection structure	Page
	QCH	3/8~40A	PCTFE	Multipurpose connector	For pressurized container 100 ℓ , 200 ℓ , 1m ³ , 2m ³ Lorry, ISO container	Pull sleeve	Contact us	15, 16, 17
	QC4F	1/2, 3/4	PTFE	No compatibility with other connectors	For pressurized container 100 ℓ , 200 ℓ , 1m ³ , 2m ³	Pull sleeve	Non available	18
	ТКМ	1/2, 3/4	PCTFE	Prevention of liquid drop	For pressurized container 100 ℓ , 200 ℓ	One-touch	Available	10, 11
	TKM6F	3/8, 3/4	PFA	Prevention of liquid drop	For pressurized container 100ℓ , 200ℓ	One-touch	Available	10
iicals	TKM-BPF	equiv. 3/8	PFA	Prevention of liquid drop	For pressurized container 150, 180	One-touch	Available	12, 13
/ chem	TKM-BQ4F	equiv. 3/8	PTFE	for compact bottle	For pressurized container 150, 180	One-touch	Available	12, 13
For high purity chemicals	BQC	equiv. 3/8	PCTFE		For pressurized container 150, 180	Pull sleeve	Non available	14
or high	BPF	equiv. 3/8	PFA	Multipurpose connector for compact bottle	For pressurized container 15 ℓ , 18 ℓ	Pull sleeve	Non available	14
Ľ	BQ4F	equiv. 3/8	PTFE		For pressurized container 150, 180	Pull sleeve	Non available	14
	PDC	1/2, 3/4	PFA (PCTFE)	Prevention of liquid drop For link	For pump up 1001, 2001 power drum	One-touch	Available	8, 9
	AQC	25A~50A	Fluorine resin	With safety lock With washing & drying function Sus-made Auto connector available	For pressurized container 1m³, 2m³. Lorry, ISO container	One-touch	Available	22, 23
	ELS	25A~50A		Auto system unit installed AQC	For pressurized container 1m³, 2m³. Lorry, ISO container	One-touch	Available	26
	S-SE-QCH	40A~50A		Air-drive method that makes connection easy	For pressurized container 1m³, 2m³. Lorry, ISO container	One-touch	Available	27
vater	QCL	1/4	PCTFE	Compact type	Hand shower etc for semiconductor system	Pull sleeve	Non available	19
For pure water	MQC	1/4, 3/8	PTFE	Compact, One-touch, Low cost	Hand shower etc for semiconductor system	One-touch	Non available	21
For	QCP	3/8~1/2	PP	Low cost	Hand shower etc for semiconductor system	Pull sleeve	Non available	20
general chemicals	USE	eguiv. 3/4	HDPE	For one-way PE molded and low cost No-valve and prevention liquid drop type Re-circulation type available	For pump up 1001, 2001 drum	One-touch	Available	3, 4, 5, 6
For genera	IBC-USE	oquiv. 0/4	(Plug side)	One-touch method connection Low cost Chemicals pulled out vertically	For pump up IBC power tote, 1000 l container	One-touch	Non available	7

Model USE One-way PE Connector (For plastic drum)

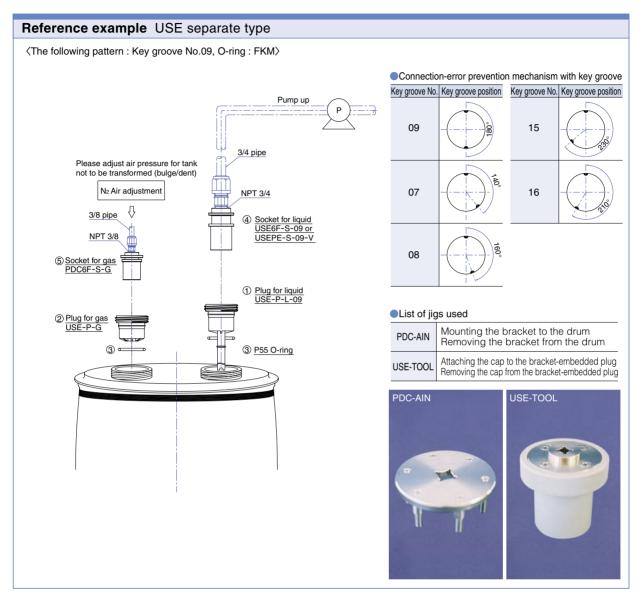
Features

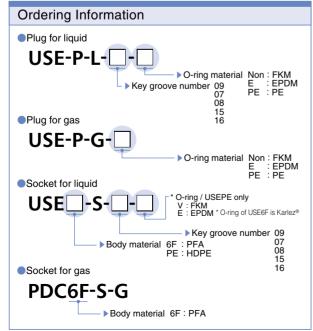
- No-moving part and simple structure due to one piece of molded structure.
- USE plug can be easy to connect to drum.
- OPrevention of liquid spouting available.
- Oconnection-error prevention type with key-groove available.
- O Low cost and short lead time due to mass production.
- One-touch method connection makes operation facilitate.
- O Adopted prevention of liquid drop when detaching
- * Caution: Please handle PE with care, because PE may have cracks or breaks against surface-active agent.

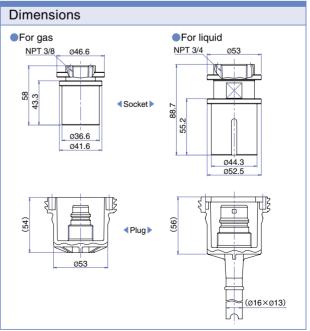
USE connector has 3 kinds of socket and 4 kinds of plug, so it is possible to make connection in various way according to your purpose.



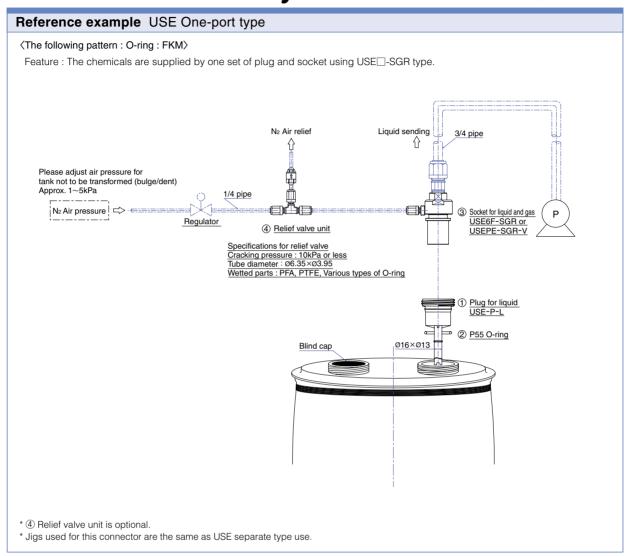


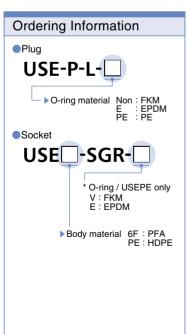


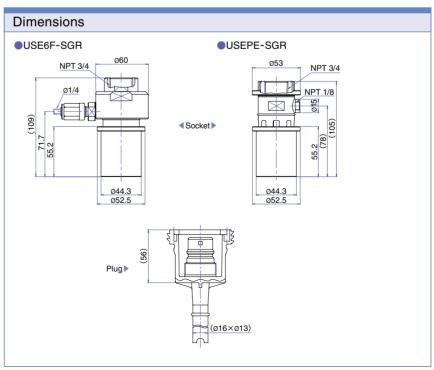




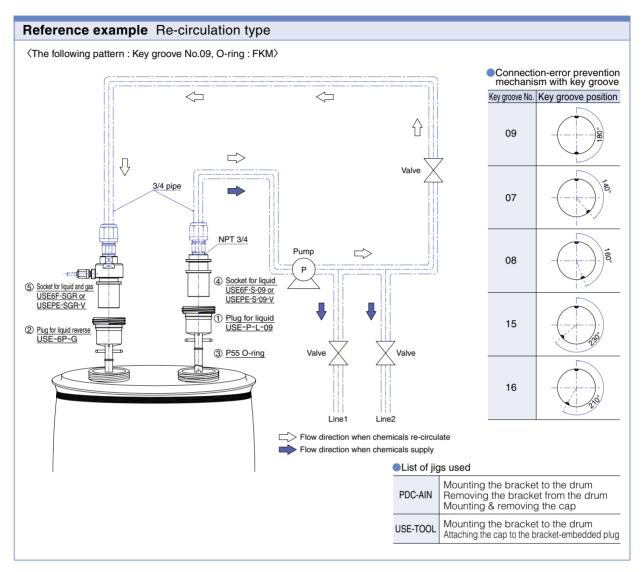
Model USE One-way PE Connector (For plastic drum)

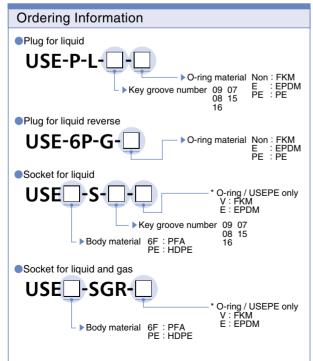


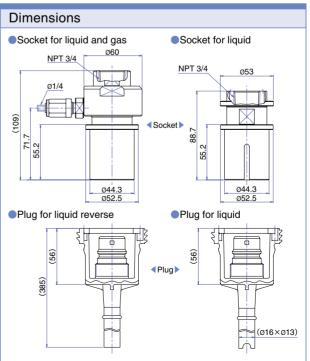












Model IBC-USE One-touch Connector For Power tote / For One-way

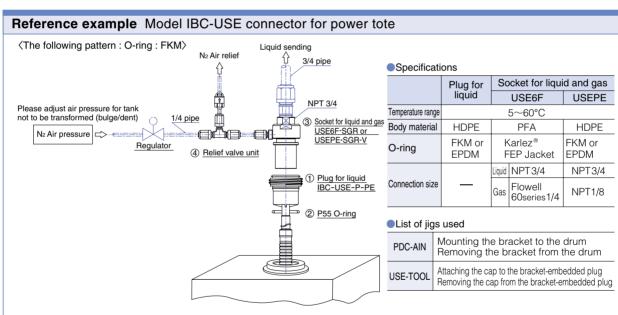


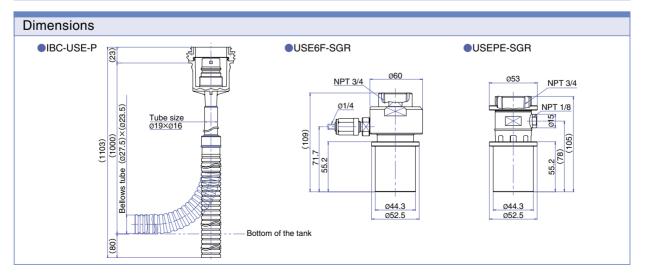


Features

- One-touch connection method can facilitate to release liquid.
- This connector can prevent liquid drop when detaching.
- Chemicals can be pulled out vertically.
- Dust-proof cap comes with the connector as accessory and is usable as it is.



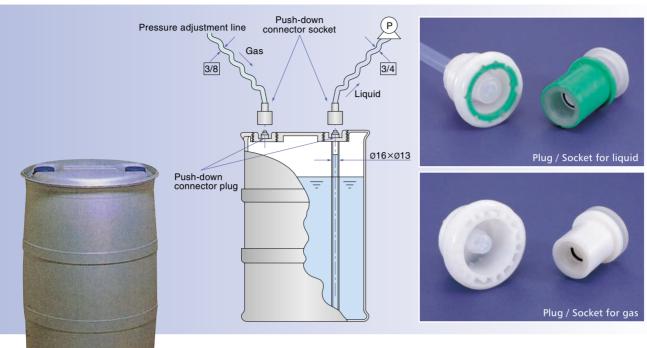




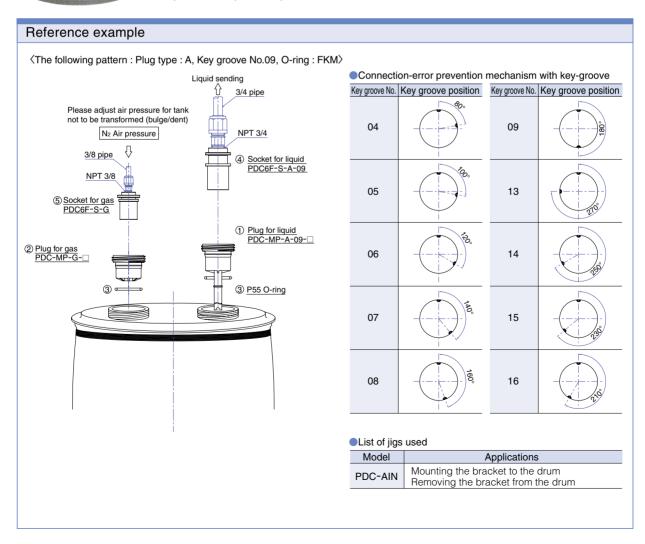




Model PDC Push-Down Connector



The connector is designed and developed for link usage with 100L and 200L plastic drums. Beside, it can be connected by one-touch and prevent liquid drop.

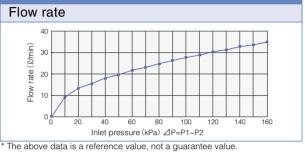


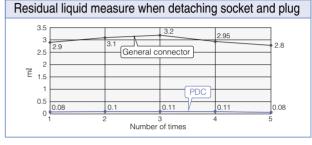
Model PDC Push-Down Connector

Features

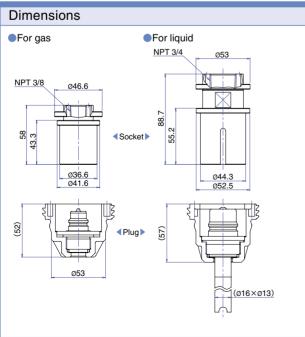
- O Surpass original key-type and dimension systems are implemented to prevent miss-connection for each chemicals and each connectors.
- O Adopted prevention liquid drop mechanism when detaching the connector.
- O Auto stop valve makes air sealing excellent.
- O Surpass original 'Super one touch method' enables the connection of the PDC connector by one-touch.

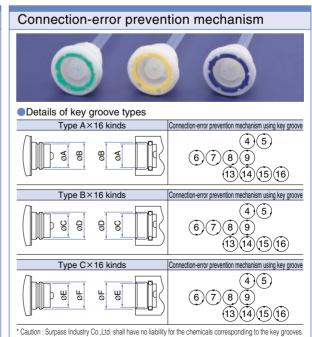
Specifications		
Operating pressure	Max.250kPa	
Operating temperature	5~60°C	
Wetted parts	PDC: PCTFE, PFA, PTFE, HDPE, Various types of O-ring	
	PDC6F: PFA, PTFE, HDPE, Various types of O-ring	





Ordering Information Drum side Plug for liquid (Plug body PFA molded) (with cap) PDC-MP-►O-ring material Non : Acid proof FKM Pr : Perfluor K : karlez® Color A : Green B : Yellow C : Blue Drum side Plug for gas (with cap) PDC-MPE-G-PDC-MP-G-(Plug body PFA molded) (Plug body PE molded) (with cap) O-ring material Non : Acid proof FKM Pr : Perfluor K : karlez® ▶ Drum Socket for liquid (Optional cap available) Socket for gas (Optional cap available) Jig PDC-AIN PDC -S-G ► Key groove number Color A : Green B : Yellow Bodv materia ▶ Body material Please select body material to be proper Non : PCTFE 6F : PFA C : Blue for operating chemicals







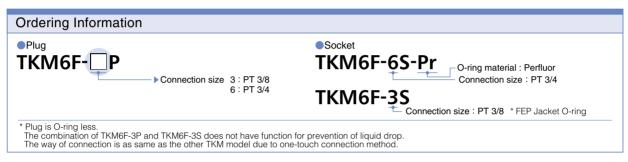
Model TKM6F PFA-made Prevention of Liquid drop Connector

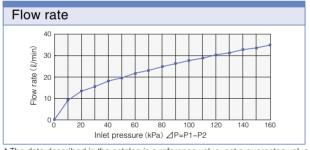


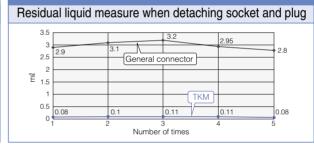
Features

- It is able to prevent liquid drop when detaching plug and socket.
 (Residual liquid : 0.1cc)
 - * Please refer to Model PDC "Residual liquid measure when detaching socket and plug."
- One-touch connection method can facilitate operation.

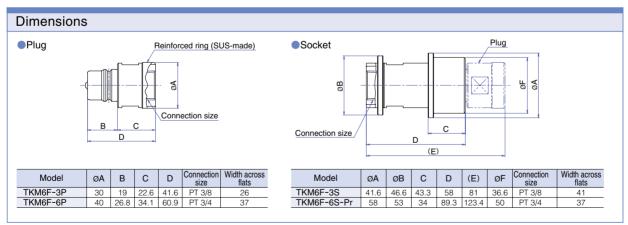
Specifications		
Operating temperature range	5~70°C	
Connection size	PT3/8, PT3/4	
Wetted parts	PFA, PTFE, Perfluor O-ring	







* The data described in the catalog is a reference value, not a guarantee value.



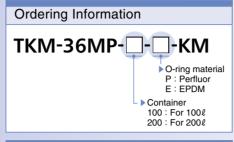
Model TKM PCTFE-made Prevention of liquid drop connector - 1/2 size only -

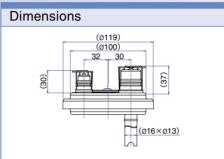


Model TKM Prevention of Liquid drop Connector / Direct-mounted Pressurized Container type

Model TKM-36MP One-port type







Features

- Model TKM is mounted in container with the capacity of 100L and 200L.
- Baffle has been adopted to the connector, which eliminate looseness.
- The outside screw if connector and fixed O-ring type make it leak-free.
- The reinforcing panel of SUSmade by SUS-made makes it possible to prevent from cracking polyethylene inner lid. (However, periodic replacement is required for the inner lid.)
- It has been designed for lowercost and to resolve conventional problems.
- Siphon tube is integrated into Plug on liquid side.

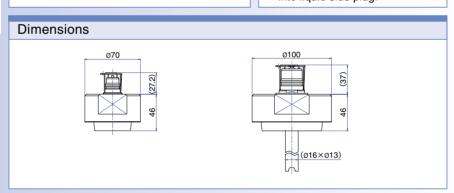
Model TKM-MS-MP Hexagon cap nut type



TKM-MS-6MP
TKM-MS-3MP

Features

- The product has preeminent sealing characteristics for fixed O-ring.
- PFA tube (Siphon) is integrated into liquid side plug.



Model TKM Connection-error prevention using key groove type



Features

- Oconnection-error prevention with key groove is provided.
- The product has preeminent sealing characteristics for fixed O-ring.



Model BPF/Model TKM-BQ4F

Connectors to prevent liquid drop for compact bottle (151,181)





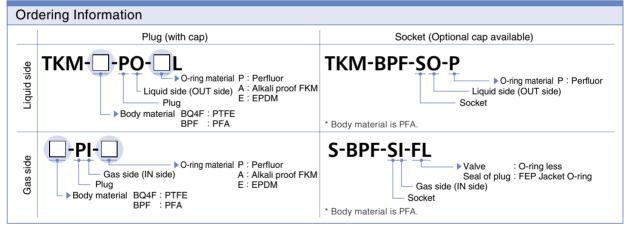


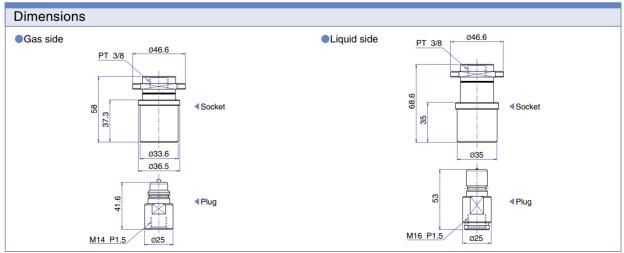
The connector has been developed for pressurized containers for semiconductor high-purity chemicals, medical chemicals and industrial cleaning liquid, so that the connector has been combined safety with air sealing, working property.

Features

- It is able to prevent liquid drop when detaching plug and socket. (Residual liquid : 0.05cc or less)
- One-touch connection method can facilitate installation.
- O Body material on Plug side: PTFE type and PFA type available.
- Oconnection-error prevention type is available.

Specifications		
Operating temperature range	5~60°C	
Valve (plug side)	O-ring less	
Wetted parts	It differs according to each model	





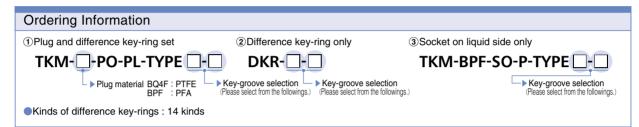
Model TKM-BPF/Model TKM-BQ4F

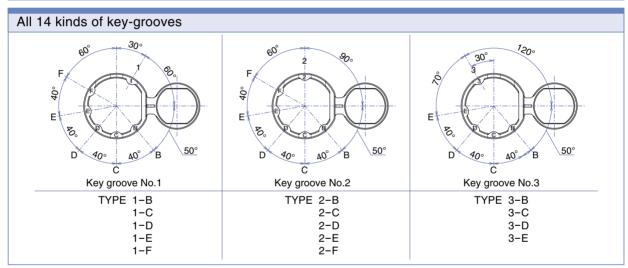
Connection-error prevention type with difference key-ring

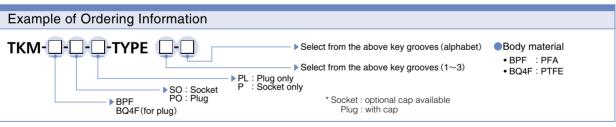












Instructions of usage

- After set plug in, embed difference key-ring in the connector. Then, confirm that the plug and the key-ring match faces.
- Can not remove. If you remove it, please cut bridge by cutter.

Cautions

1)Confirmation of connection error

Please be careful not to do that socket mounted difference key-ring connect to standard plug without difference key-ring (TKM-BQC, BQ4F, BPF)

Natural color is used for difference key-ring and sleeve of connection-error prevention type. Green color ring is used for plug of standard type TKM. Green sleeve is used for socket of standard type TKM.

②About sales

Model TKM plug only available. Can not correspond to Model BQC, BPF, BQ4F.

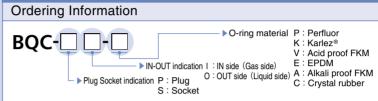
Figure (Reference example) Liquid side Socket: TKM-BPF-SO-P-TYPE1-B Plug: TKM-BPF-PO-PL-TYPE1-B Plug: BPF-SI-FL Plug: BPF-PI-P



Model BQC Connector for compact bottle (PCTFE-made)



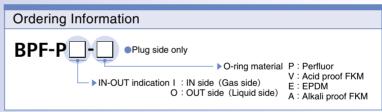
Specifications		
Operating pressure	Max.350kPa	
Operating temperature range	5~70°C	
Connection size	Socket side: PT3/8	
	Plug side : M14 P1.5 (IN side)	
	M16 P1.5 (OUT side)	
Accessories	PP-made plug cap, PP-made baffle	



Model BPF Connector for compact bottle (PFA-made)



Specifications		
Operating pressure	Max.250kPa	
Operating temperature range	5~60°C	
Connection size	Plug side: M14 P1.5 (IN side) M16 P1.5 (OUT side)	
Accessories	PP-made plug cap, PP-made baffle	



Model BQ4F Connector for compact bottle (PTFE-made)



Specifications		
Operating pressure	Max.250kPa	
Operating temperature range	5~60°C	
Connection size	Socket side: PT3/8 Plug side: M14 P1.5 (IN side) M16 P1.5 (OUT side)	
Accessories	PP-made plug cap, PP-made baffle	

Ordering Information
BQ4F- O-ring material P: Perfluor V: Acid proof FKM IN-OUT indication I: IN side (Gas side) Plug Socket indication P: Plug S: Socket O: OUT side (Liquid side) S: Socket

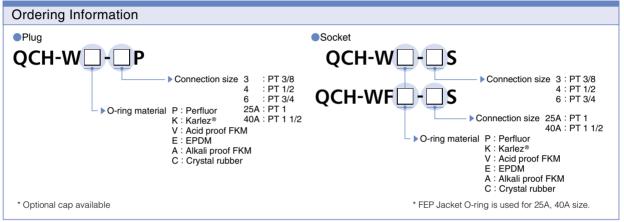
^{*} Please select materials according to type of chemicals BQC, BPF, BQ4F are compatible each other due to same measurement.

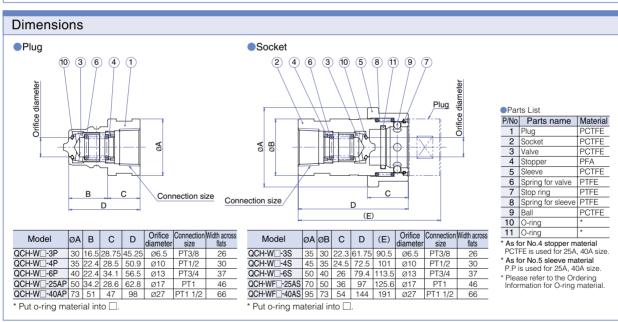
^{*} Plug comes with cap, socket comes without cap (optional cap available)

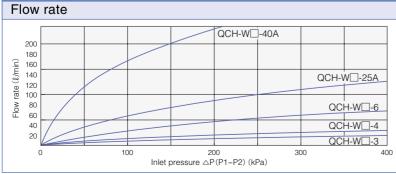
Model QCH Quick Connector



Specifications		
Operating pressure	Max.450kPa	
Operating temperature range	5~70°C	
Connection size	PT3/8, PT1/2, PT3/4, PT1, PT1 1/2	
Wetted parts	25A, 40A: PCTFE, Various types of O-ring, PTFE 3~6: PCTFE, PFA, Various types of O-ring, PTFE	







- * The flow rate is obtained when socket and plug are connected.
- * The flow rate is reference value, not a guarantee value.



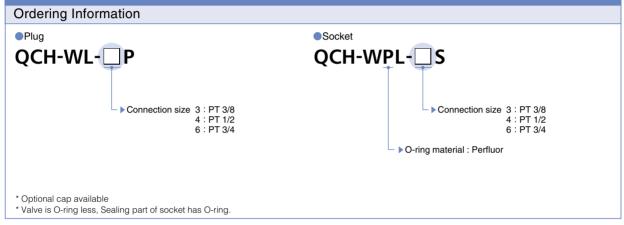
SUZPASS

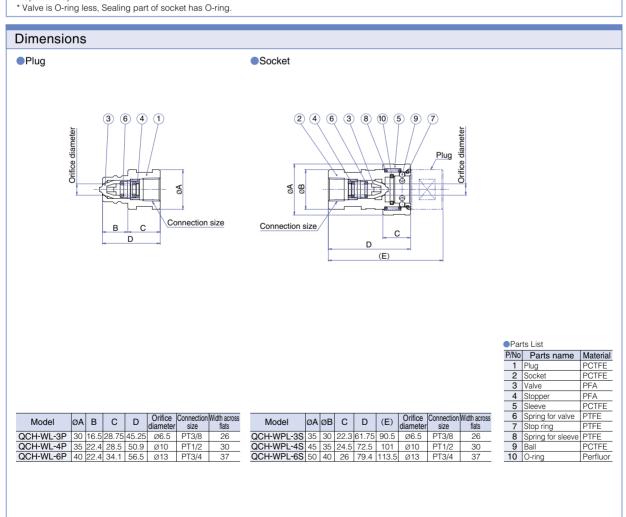
Quick Connectors

Model QCH-WL O-ring Less Quick Connector



Operating pressure	Max.450kPa
Operating temperature range	5~70°C
Connection size	PT3/8, PT1/2, PT3/4
Wetted parts	PCTFE, PFA, Perfluor O-ring, PTFE

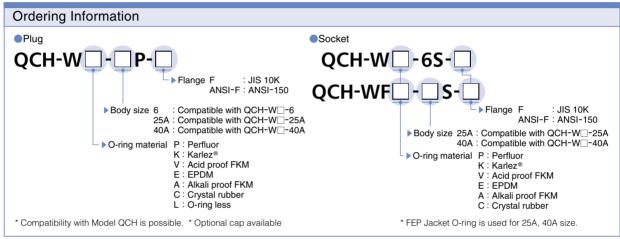


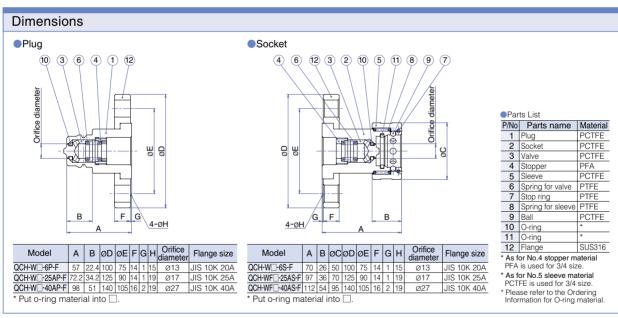


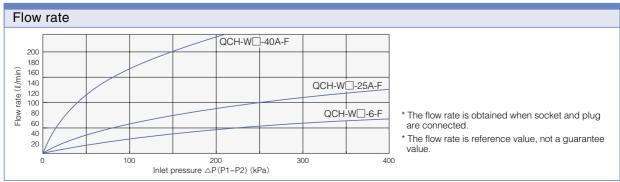
Model QCH-F Quick Connector Flange type



Specifications		
	Operating pressure	Max.450kPa
	Operating temperature range	5~70°C
	Wetted parts	25A, 40A: PCTFE, Various types of O-ring, PTFE 6: PCTFE, PFA, Various types of O-ring, PTFE









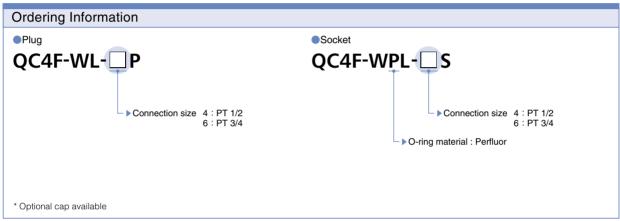


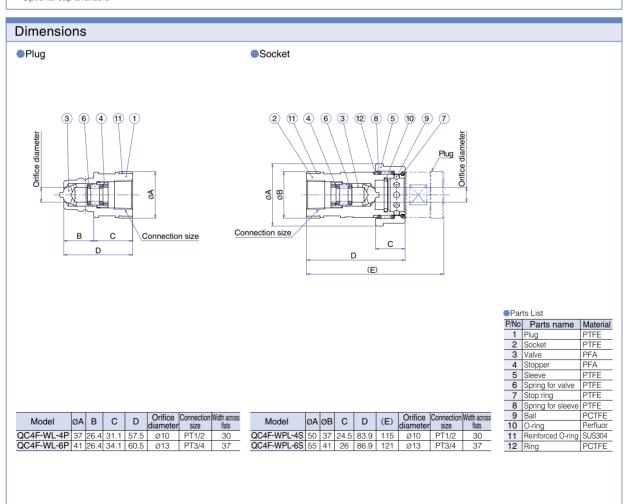
Model QC4F PTFE-made Quick Connector



Feature		
O Body material is made of PTFE, so it has excellent chemical resistance		
Specifications		
<u>'</u>		
Operating pressure	Max.250kPa	
Operating temperature range	5~60°C	
Connection size	PT1/2, PT3/4	
Wetted parts	PTFE, PFA, Perfluor Q-ring (Socket only)	

^{*} Please handle with care since PTFE is the softest material in the other fluorine resin.



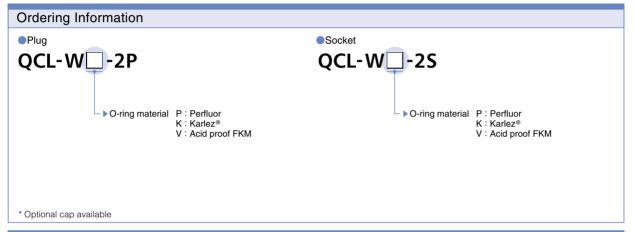


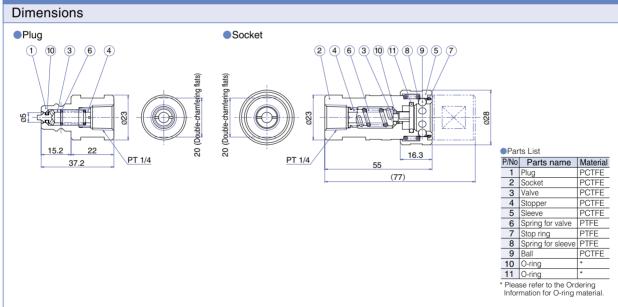
Model QCL Quick Connector

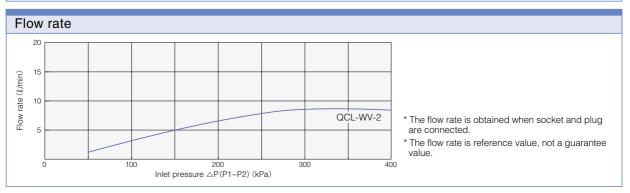


Specifications		
Operating pressure Max.450kPa		
Operating temperature range	e 5~70°C	
Connection size	PT1/4	
Wetted parts	PCTFE, PTFE, Various types of O-ring	

^{*} Please make sure not to use for strong gas permeability chemicals.









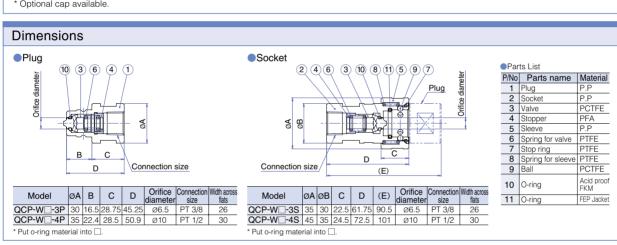
Model QCP P.P-made Quick Connector



Feature				
○ The connector is made of P.P, and lower cost.				
Specifications				
1				
Operating pressure	Max.350kPa			
Operating temperature range 5~60°C Connection size PT3/8, PT1/2 Wetted parts P.P, PTFE, PFA, PCTFE, FEP Jacket O-ring, Acid proof FKM O-ring				

^{*} Please be careful for compatibility of polypropylene with your fluid type.





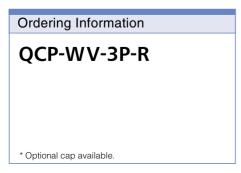
Plug for Hand shower

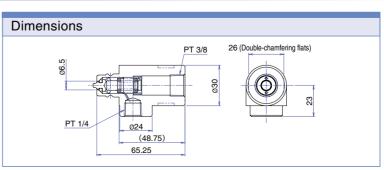


Feature

The product has developed to solve problems of the high-purity water accumulation when hand shower does not use. Please use in sets with QCP-WV-3S.

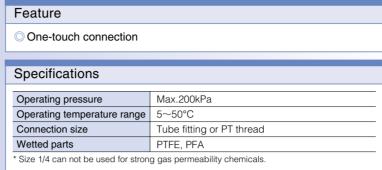
Specifications	
Operating pressure	Max.350kPa
Operating temperature range	5~60°C
Connection size	Main pipe: PT3/8 Side port: PT1/4



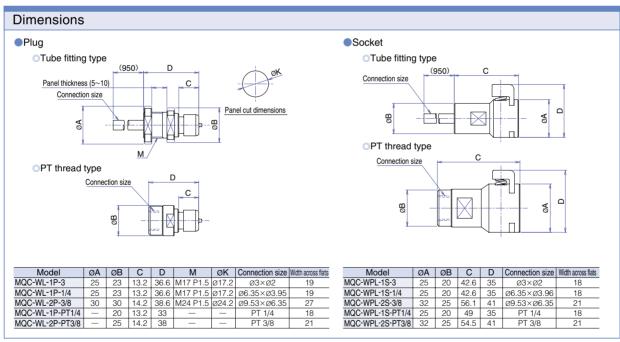


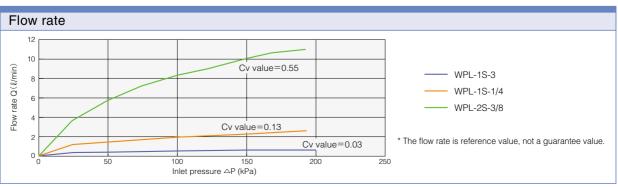
Model MQC Mini Quick Connector













Model AQC Auto Connector





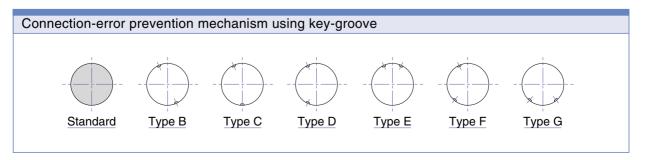


Features

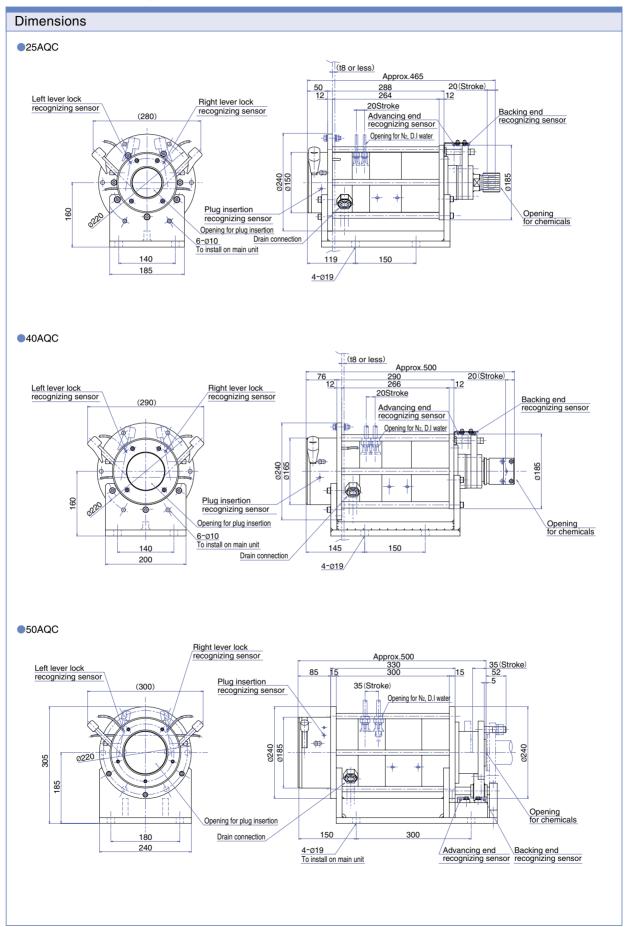
- O Parts contact with fluid are made of fluorine resin.
- Washing & drying using the auto valve and eddy-cyclone methods makes it possible to wash & dry only the plug and socket contact areas.
- Auto connector plugs can be connected either to an Auto connector main socket unit (Model AQC).
 Semi-Auto Connector (Model S-SE-QCH), or to a Quick Connector Socket (Model QCH), providing the connection aperture dimensions are the same.
- © Connection-error prevention model of the Auto Connector using key groove method can be manufactured on request.
- The Auto Connectors' light weight and compact size make it easy to connect to system.
- The Auto Connector comes in sizes 25A, 40A and 50A.
- O An all-stainless-steel model of the Auto Connector is also available for organic fluid use. Available only in size 40A.

Ordering Information AQC- Connector size 25 : PT1 40 : PT1 1/2 50 : PT2 S40 : PT1 1/2 (All-stainless-steel)

Specifications		
Operating pressure Max.250kPa		
Type of fluid	quids	
Operating temperature range	5~50°C	
Wetted parts	PCTFE, PFA, PTFE, Various types of O-ring	
Pure water cleaning pressure	Max.200kPa	
Brow-drying pressure	Max.200kPa	
Cylinder operating pressure	450~480kPa	



Model AQC Auto Connector



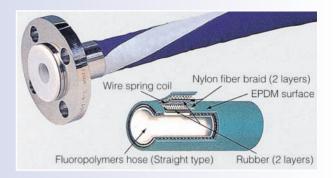


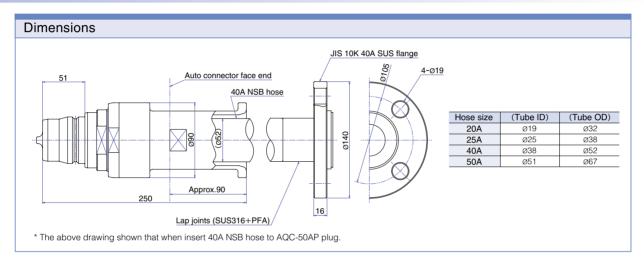


Model AQC Quick Connector Hose

Fluoropolymer NSB Hose

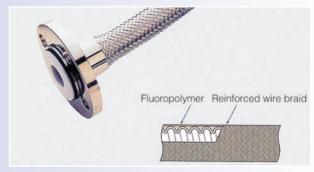


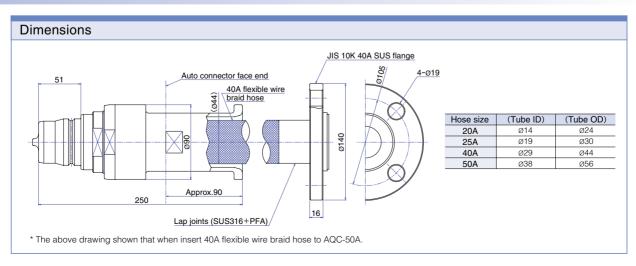




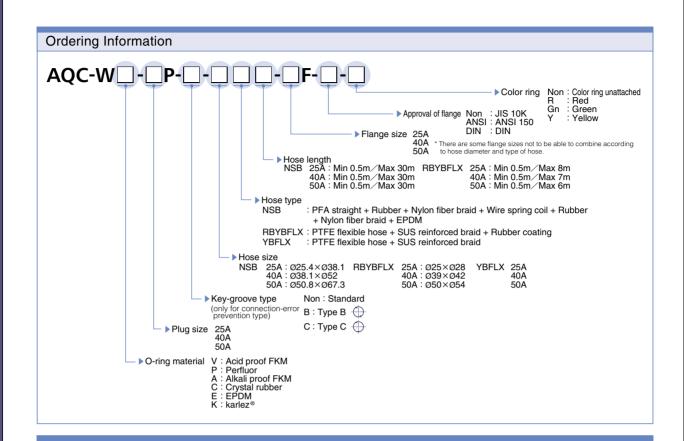
Flexible Stainless Steel Wire Braid Hose







Compatibility List of Plug and Socket



		Dive	Plug for Auto Model AQC Manual plug for Model QCH						
		Plug	25A	25A 40A			50A	25A	40A
Socket			No key groove	Standard	Key groove B	Key groove C	No key groove	Standard	Standard
	25A	No key groove	0	×	×	×	×	×	×
	40A	Standard	×	0	×	×	×	×	×
Auto Model AQC		Key groove B	×	×	0	×	×	×	×
		Key groove C	×	×	×	0	×	×	×
	50A	No key groove	×	×	×	×	0	×	×
Semi Auto Model S-SE-QCH	40A	No key groove	×	0	0	0	×	×	0
	50A	No key groove	×	×	×	×	0	×	×
	25A	Standard	0	×	×	×	×	0	×

Manual Model QCH

40A

Standard

 \bigcirc

X

 \bigcirc

 \bigcirc

×

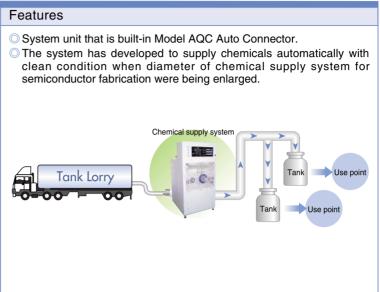
×

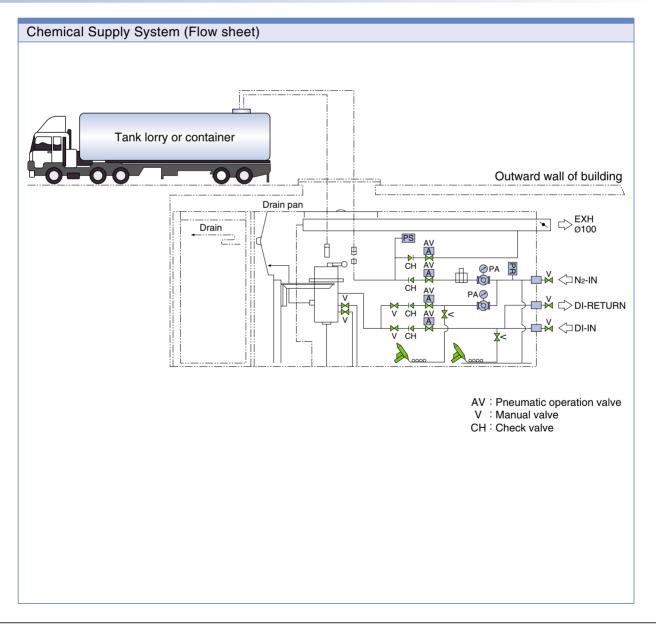
 \bigcirc



Model ELS-2500/4000/5000 Chemical Supply System for Electronics Industry







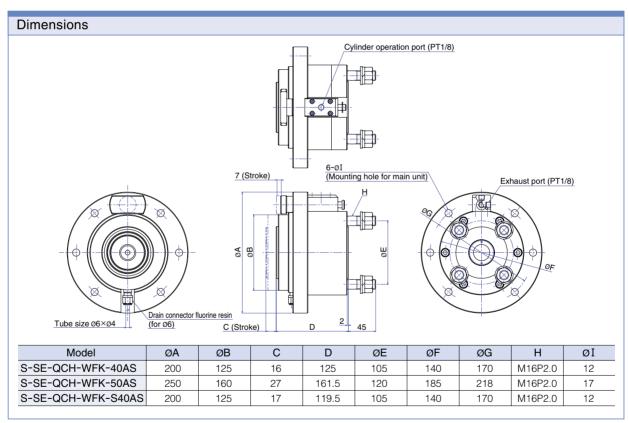
Model S-SE-QCH One-touch Semi-Auto Connector



Features

- The specially developed super one-touch mechanism and air-drive method make connection and detachment of plug easy and safe.
- S-SE-QCH-WFK-40A is compatible with QCH-40A S-SE-QCH-WFK-50A is compatible with AQC-50A
- Connection-error prevention type with key groove can be manufactured on request.
- When using connection error prevention type with key grooves, always use a Semi-Auto Bracket and key frame.

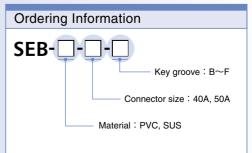
Specifications		
Operating pressure Max.250kPa		
Operating temperature range	5~50°C	
Cylinder operating pressure	400~450kPa	
Wetted parts	PCTFE, PTFE, FEP Jacket O-ring, Karlez® O-ring	



Bracket for Semi-Auto









SURPASS

Model HB Handy Box (For Large Aperture)



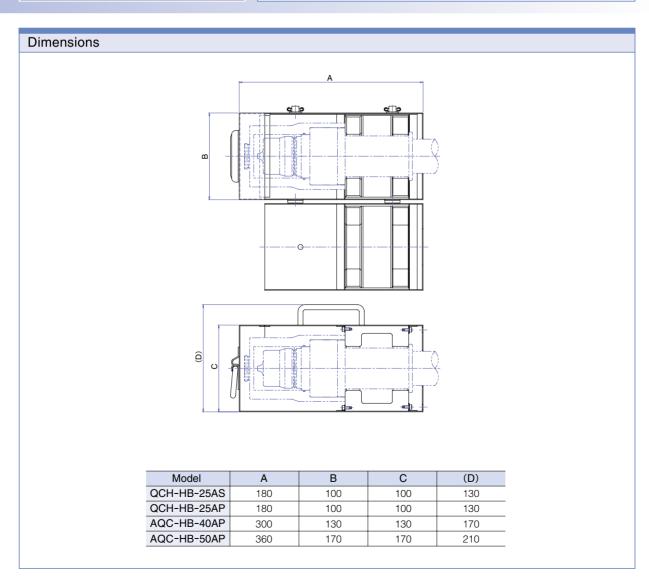
Features

- O Handy box is protective box designed to contain Large aperture models of Quick connector.
- O Quick connector can be carried in the Handy box without detaching the fluoropolymer hose.
- O Handy box is made of SUS304.



Ordering Information

Model	QCH		S-SE-QCH	AQC
Size	Socket	Plug	Plug	Plug
25A	QCH-HB-25AS	QCH-HB-25AP		
40A			AQC-HB-40AP	AQC-HB-40AP
50A			AQC-HB-50AP	AQC-HB-50AP

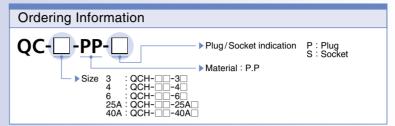


Cap series

Dust Proof Cap

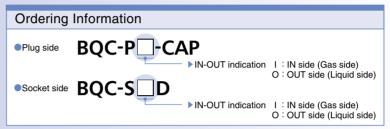
For QCH





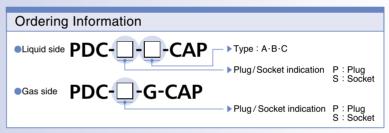
For BQC





For PDC





For TKM



Ordering Information

for TKM-3S : PDC-S-G-CAP for TKM-4S-Pr : PDC-4S-CAP for TKM6F-6S-Pr : TKM-6S-CAP

TKM6F-3P: PDC-P-G-CAP
TKM-4P: PDC-4P-CAP
TKM6F-6P: PDC-P-AN-CAP

Vent Cap

PDC-VENT



Ordering Information

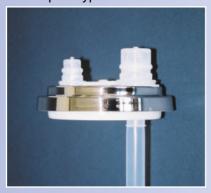
PDC-VENT (O-ring : FKM)

PDC-VENT-Pr (O-ring : Perfluor)



Connector Variation

One-port type



Cleaning type



Elbow socket



●For 22ℓPE



QCH color ring



MQC for resist gallon bin



STKM



Total



●100/200ℓ pressurized container



●PFA18ℓ



PE Elbow socket USE-SGR type



●1000ℓ container



Safety Instructions ------



- © Before you use this product, carefully read this manual for safety operation. We are not liable to any accident caused by neglect of our instructions.
- Ouse this product in accordance with its specification.
- Oconfirm the compatibility of the type of fluid to be used and the material of the part in contact with fluids before using this product.
- On not connect or detach Fluoropolymers Quick Connectors under pressurized conditions. Doing so may cause contents (chemical fluids) to splash out, causing accidents or injuries.
- Ousing inappropriate O-ring material may cause leakage. Before specifying your O-ring material make sure that it is compliant with your fluid type and temperature.
- On not use this product for liquid containing foreign substances. Such usage may degrade the performance of the product.
- Please handle abrasive and coagulable fluids with care not to cleave. Such fluids may degrade the system performance.
- ODo not use Fluoropolymers Quick Connectors in applications subject to flexural or tensile stress.
- On not use Fluoropolymers Quick Connectors as rotary joints or for other rotary applications. Rotary joints are available as separate products.
- Make sure that all connections and detachments of Fluoropolymers Quick Connectors are done in a clean, litterfree area.
- Never use this product in a place that could have vibration. Such usage may cause abnormal operation.
- When connection or detaching Fluoropolymers Quick Connectors, always wear a protective face mask, protective gloves, and protective clothing.
- © Fully examine and select the appropriate material for the part in contact with fluid.

Notes on product warranty



This product is warranted for a period of one (1) year from the date of delivery by Surpass Industry Co.,Ltd. Within this period, we will replace the product with any defect that is undoubtedly due to design or workmanship. This warranty does not apply to the followings.

- 1 Any defective products due to mishandling or improper usage.
- 2 Any defective products due to alteration or improper repair by other than Surpass Industry.
- 3 Any defective products due to a natural disaster, riot or accident that we are not liable to.
- (!)

This product is not designed for use with any equipment or in the system that is operated under conditions that could be critical to human life.



The data described in the catalog is a reference value, not a guarantee value.

Description of marks used in this manual ----



Caution Indicates a potential hazardous situation that, if not avoided, could result in personal injury or damage to the property.



Indicates proper procedures and instructions to avoid any damage to the product and use it properly.

We take an order for customizing the product according to your specific needs. For more information, please contact us.

- * The contents of this manual may subject to future modifications without prior notice.
- * We made best efforts in completing this manual. However, if you find any questionable area, mistakes or omissions, please contact us.
- * We are not liable to any consequential influence due to usage of this product.
- * We are not liable to any damage due to incorrect usage or unauthorized usage of pruduct.
- * Using inappropriate O-ring material may cause leakage. Before specifying your O-ring material make sure that it is compliant with your fluid type and corrosion resistance.
- * Please be careful about similar products.
- * Karlez® is registered trademarks of DuPont Dow Elastmers.
- *We are sanctioned by International Export Control and Chemical Weapons Conventions. Our products will be subject to "List controls" and "Catch-all controls" that corresponds with Foreign Exchange and Foreign Trade Law. All our products are subject to "Catch-all controls". Please observe the procedures under the laws of export regulations.



Surpass Industry Co., Ltd.

Head office 2203 Shimooshi, Gyoda-City, Saitama-Pref.

Zip 361-0037 Tel .+81-48-554-9767 Fax.+81-48-554-9906

Distributo
