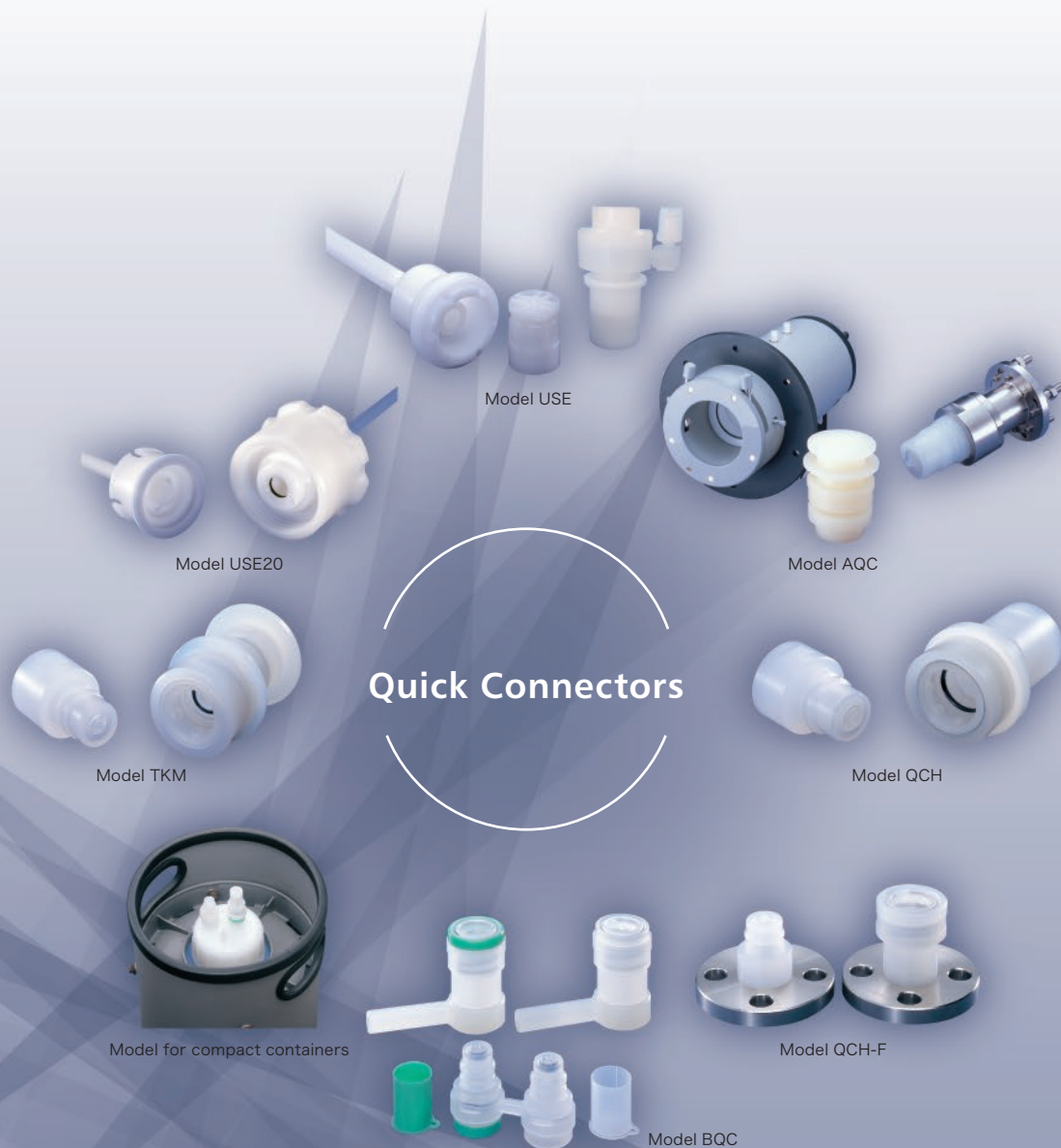


# Quick Connectors



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# Quick Connectors

## Features

- Quick connector can be installed on a variety of containers such as small container, tank lorry and ISO container, and it is reliable on chemical supply stably and safely.
- There is a option of body materials such as fluorine resin and polyethylene to meet cost and applications.

## Model Selection Table

	Model	Connection size	Body material	Feature / Overview	Reference application	Connection type	Miss-connection preventing structure
For high purity chemicals	QCH	3/8" ~40A	PCTFE	Multipurpose connector	For pressurized container 100L, 200L, 1m <sup>3</sup> , 2m <sup>3</sup> Lorry, ISO container	Pull sleeve	Contact us
	QC4F	1/2" ~3/4"	PTFE	No compatibility with other connectors	For pressurized container 100L, 200L, 1m <sup>3</sup> , 2m <sup>3</sup>	Pull sleeve	Not available
	MQC-ML	1/4"	PTFE	Tube fitting also available	For pump up	Super one-touch	Not available
	TKM	1/2" ~3/4"	PCTFE	Liquid drop prevention	For pressurized container 100L, 200L	Super one-touch	Contact us
	TKM-BPF	equiv. 3/8"	PFA	Liquid drop prevention for compact bottle	For pressurized container 15L, 18L	Super one-touch	Available
	TKM-BQ4F		PTFE				Available
	BQC		PCTFE	Multipurpose connector for compact bottle	For pressurized container 15L, 18L	Pull sleeve	Not available
	BPF		PFA				Not available
	BQ4F		PTFE				Not available
	PDC	1/2" ~3/4"	PFA (PCTFE)	Liquid drop prevention for link	For pump up 200L power drum	Super one-touch	Available
	AQCB	50A	Fluorine resin	With safety lock with washing & drying function SUS-made Auto connector is available.	For pressurized container 1m <sup>3</sup> , 2m <sup>3</sup> Lorry, ISO container	Air operation	Available
For general chemicals	USE	equiv. 3/4"	HDPE (Plug side)	For one-way PE molded and low cost No-valve and prevention liquid spout type	For pump up 200L drum	Super one-touch	Available
	USE1000				For pump up IBC power tote, 1000L container	Super one-touch	Not available
	USE20	equiv. 3/8"	HDPE	For Compact bottle	For pump up 20L, gallon bottle	Screw in	Not available
For DI water	QCP	3/8" ~1/2"	PP	lightweight	Semiconductor device hand shower etc.	Pull sleeve	Not available

# Connector Variation

## Total Coordination

### Auto Connector | AQCB

Auto Connector Model AQCB has been developed to supply chemicals safely and clean when high purity chemicals are supplied to semiconductor and FPD factory.

- Features**
- Safety** : No need for manual connection.
  - Clean** : Washing & drying by Surpass original Eddy-cyclone method.
  - Compact** : Easy to use compact design.
  - Variation** : 50A size: wetted part is a fluorine resin that is resistant to chemical.

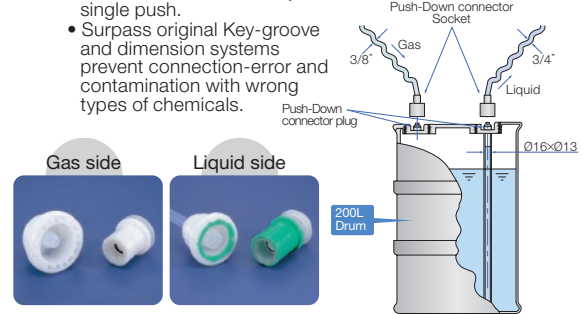


### Push down Connector | PDC

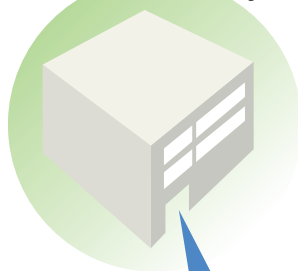
#### Repeat

PDC Push-Down Connector is a handy connector used to transfer high purity EL chemicals.

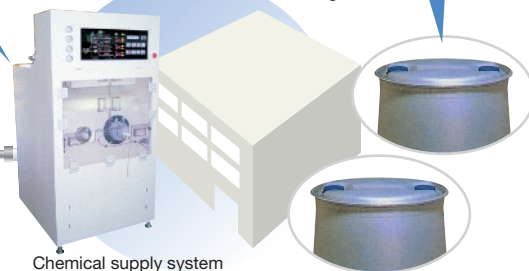
- Features**
- The new mechanism is developed specially for PDC. It eliminates liquid drop when detaching the connector.
  - The auto-stop structure minimized interfusion of foreign particles in case of the attaching/detaching of the connector.
  - Surpass original "Super one-touch method" enables the connection of the PDC by one single push.
  - Surpass original Key-groove and dimension systems prevent connection-error and contamination with wrong types of chemicals.



### Chemical factory



### Semiconductor factory



Chemical supply system

### Takumi Connector | TKM

Takumi is a new manual type connector that implementing the new function of PDC.

- Features**
- Employs Auto-stop structure.
  - The new mechanism is developed, which eliminates liquid drop when detaching the connector.
  - Surpass original "Super one-touch method" enables the connection of the TKM by one single push.

#### Liquid drop prevention type



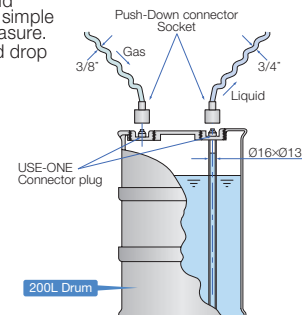
### USE-ONE Connector | USE-ONE

#### One-way

USE-ONE Connector is used for chemicals in general industry and semiconductor / liquid crystal market.

- Features**
- It is easy installation on the drum for siphon tube is integrated into the connector.
  - The connector is designed for simple structure such as no-moving part or no excess parts on it.
  - "Super One-touch connection method" can make operation easier.
  - Surpass original Key-groove and dimension systems prevent connection-error and contamination with wrong types of chemicals.
  - The mechanism to prevent liquid spouting is employed. No valve simple structure is ensuring safety measure.
  - Socket on fluid side has a liquid drop prevention mechanism.

#### Liquid drop prevention type

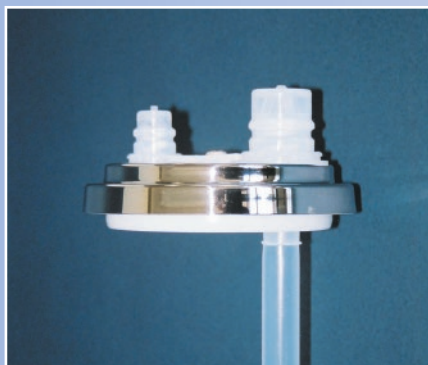




## Quick Connectors

### Connector Variation

● One-port type



● Cleaning type



● Pail can



● 22L PE Container



● QCH Color ring



● 200L Drum



● STKM



● Comprehensive line up



● 100/200L pressurized container



● PFA 18L Container



● Chemical drum



● 1000L container









# Model USE One-way PE Connector (For 200L plastic drum) **RoHS2**

## Features

- The plug side have no-moving part and simple structure due to one piece of molding.
- USE plug is easy to connect to drum.
- The product have liquid spouting prevention mechanism to ensure safety.
- Connection-error prevention type with key grooves are available.
- Super one-touch connection method makes smooth operation.
- Liquid drop prevention structure adopted when detaching

**Caution** Please be cautious that cracking may occur depending on the chemical (surface-active agent etc.) used in PE.

		Socket on system side (optional cap available)	Plug on drum side (with cap)
Separate type	Liquid	 <p>Name : Separate type socket for liquid Features : Connection-error prevention with Key-groove Wetted parts : USE: PCTFE·Kalrez® PTFE USE6F: PFA·Kalrez® PTFE</p> <p>Type : <b>USE-S-□</b> <b>USE6F-S-□</b></p> <p>→ Key groove number 04~09, 13~16 : Natural 3F20G~3F29G : Green 3F30N~3F39N : Navy</p>	 <p>Name : Plug for liquid Features : •Connection-error prevention with Key-groove. •Simple structures as tube is integrated into plug. •The product have liquid spouting prevention mechanism.</p> <p>Wetted parts :HDPE, Various types of O-ring</p> <p>Type : <b>USE-P-L-□</b> <b>USE-P-L-□-E</b></p> <p>→ Key groove number 04~09, 13~16 : Natural 20G~29G : Green 30N~39N : Navy</p>
	Gas	 <p>Name : Separate type socket for Gas Features : One-touch connection method Wetted parts : PDC: PCTFE·FEP PDC6F: PFA·FEP</p> <p>Type : <b>PDC-S-G</b> <b>PDC6F-S-G</b></p>	 <p>Name : Separate type plug for gas Wetted parts :HDPE, Various types of O-ring</p> <p>Type : <b>USE-P-G</b> <b>USE-P-G-E</b></p>
	One-port type Liquid & Gas	 <p>Name : One-port socket (for liquid and gas) Features : Supply by one port due to the liquid and gas flow path. Wetted parts : USE: PCTFE·Kalrez® PTFE USE6F: PFA·Kalrez® PTFE</p> <p>Type : <b>USE-SGR-□-L60</b> <b>USE6F-SGR-□-L60</b></p> <p>→ Key groove number 04~09, 13~16 : Natural 3F20G~3F29G : Green 3F30N~3F39N : Navy No number : No Key groove</p>	 <p>Name : Plug for liquid Features : •Connection-error prevention with Key-groove. •Simple structures as tube is integrated into plug. •The product have liquid spouting prevention mechanism.</p> <p>Wetted parts :HDPE, Various types of O-ring</p> <p>Type : <b>USE-P-L-□</b> <b>USE-P-L-□-E</b></p> <p>→ Key groove number 04~09, 13~16 : Natural 20G~29G : Green 30N~39N : Navy No number : No Key groove</p>

## Jig for Bracket



Type : **PDC-AIN**

Mounting the plug to the drum  
Removing the plug from the drum

## Jig for Cap



Type : **USE-TOOL**

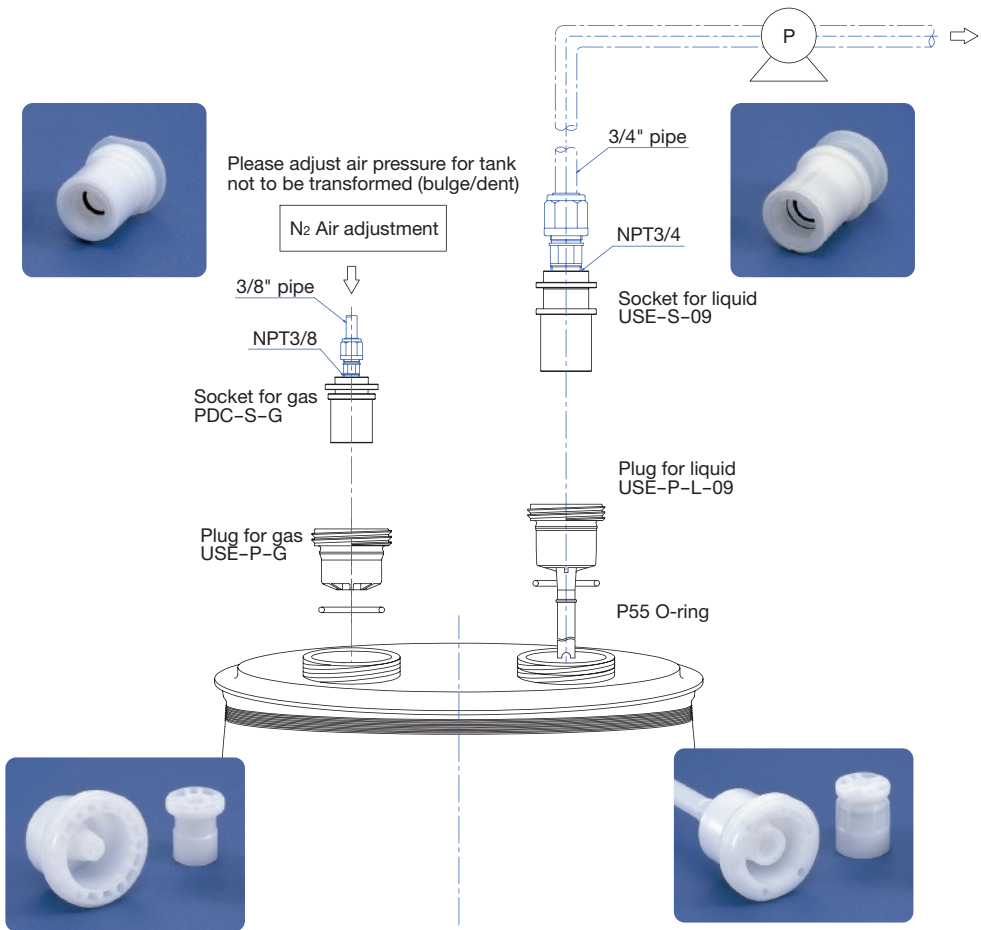
Removing the cap from the bracket  
Installing the cap to the bracket

Model USE One-way PE Connector (Separate type)

RoHS2





Reference Example

〈The following pattern : Key groove No.09, O-ring : FKM〉



\*Please refer to page 27 for Key groove selection.

Models

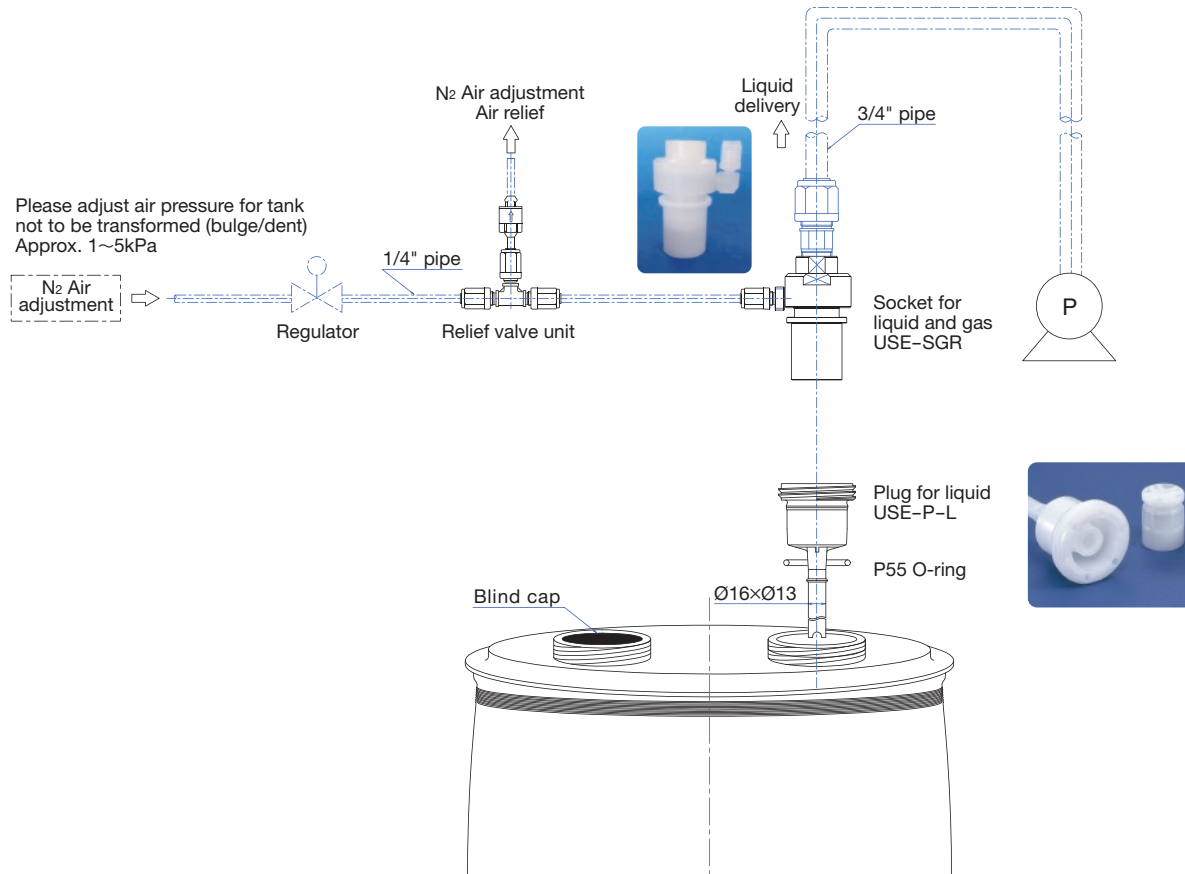
	Plug	Socket
Liquid	<b>USE-P-L-</b>  (O-ring:FKM)	<b>USE-S-</b>  (Body material:PCTFE)
	<b>USE-P-L-</b>  -E (O-ring:EPDM)	<b>USE6F-S-</b>  (Body material:PFA)
▶ Key groove number 04~09, 13~16 : Natural 20G~29G : Green 30N~39N : Navy		▶ Key groove number 04~09, 13~16 : Natural 3F20G~3F29G : Green 3F30N~3F39N : Navy
Gas	<b>USE-P-G</b> (O-ring:FKM)	<b>PDC-S-G</b> (Body material:PCTFE)
	<b>USE-P-G-E</b> (O-ring:EPDM)	<b>PDC6F-S-G</b> (Body material:PFA)

# Model USE One-way PE Connector (One-port type) RoHS2

## Reference Example

〈The following pattern : O-ring : FKM〉

Features : Chemicals are supplied by one plug with a liquid-gas combined socket.



\*Please refer to page 27 for Key groove selection.

## Models

**Plug**

**USE-P-L-□** (O-ring:FKM)  
**USE-P-L-□-E** (O-ring:EPDM)

Key groove number  
 04~09, 13~16 : Natural  
 20G~29G : Green  
 30N~39N : Navy

**Socket**

**USE-SGR-□-L60** (Body material:PCTFE)  
**USE6F-SGR-□-L60** (Body material:PFA)

Key groove number  
 04~09, 13~16 : Natural  
 3F20G~3F29G : Green  
 3F30N~3F39N : Navy

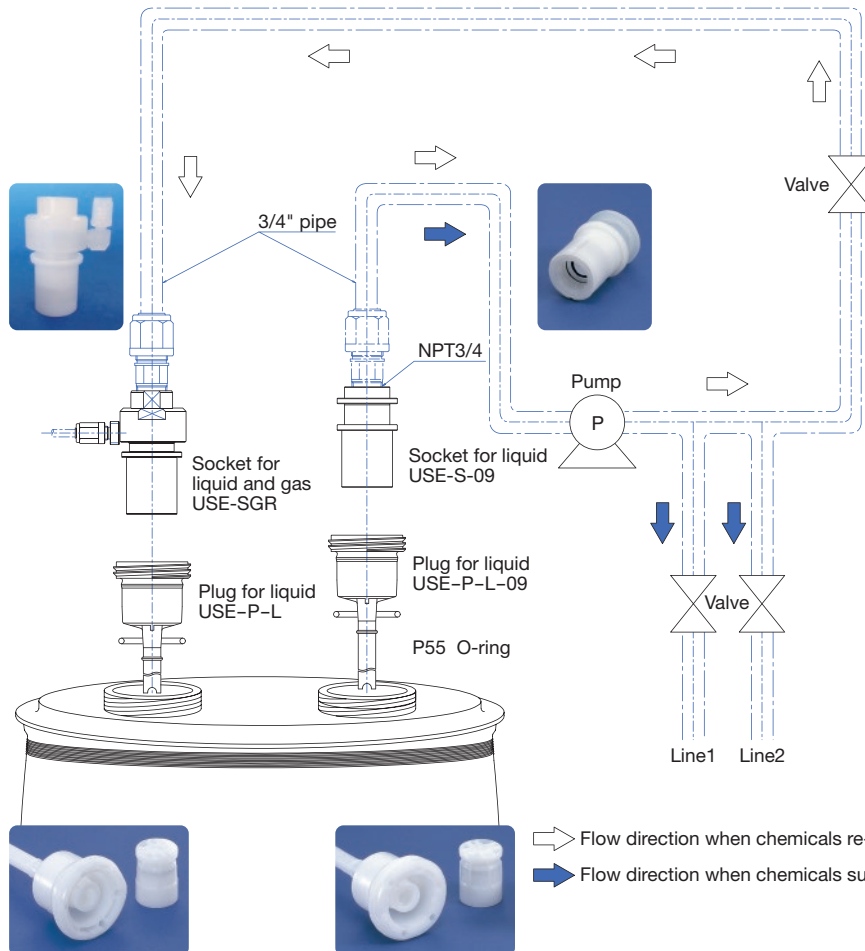
# Quick Connectors

## Model USE One-way PE Connector (Re-circulation type)

RoHS2

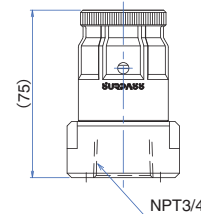
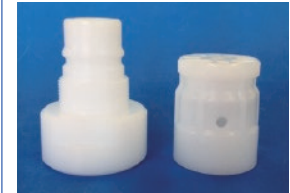
### Reference Example

〈The following pattern: Key groove No.09, O-ring : FKM〉



● Plug for flush

Type : USE-P-LF



By using a flushing plug, it will be possible to flush the inside of pipe from a socket immediately when supplying coagulable chemical liquids.

In case of using slurry liquid particularly, please be sure to also wash for preventing coagulate.

→ Flow direction when chemicals re-circulate

→ Flow direction when chemicals supply

\*Please refer to page 27 for Key groove selection.

### Models

**Plug**

**USE-P-L-** (O-ring:FKM)

**USE-P-L-** (O-ring:EPDM)

→ Key groove number

04~09, 13~16 : Natural

20G~29G : Green

30N~39N : Navy

No number : No Key groove

**Socket**

**USE-S-** (Body material:PCTFE)

**USE6F-S-** (Body material:PFA)

→ Key groove number

04~09, 13~16 : Natural

3F20G~3F29G : Green

3F30N~3F39N : Navy

**Socket for liquid and gas**

**USE-SGR-L60**

**USE6F-SGR-L60**

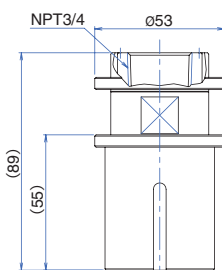
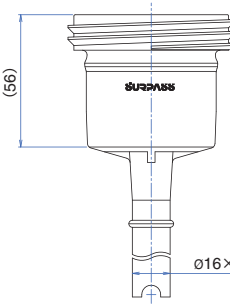
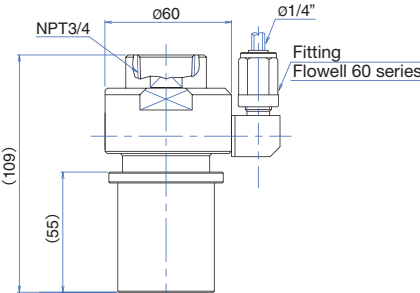
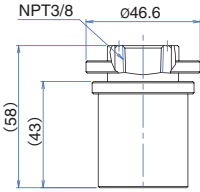
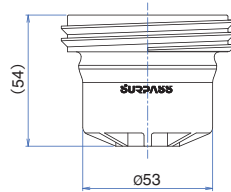


# Model USE One-way PE Connector Specifications / Dimensions

## Specifications

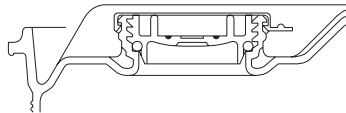
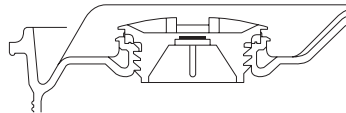
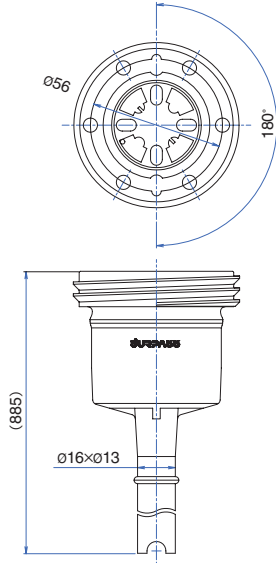
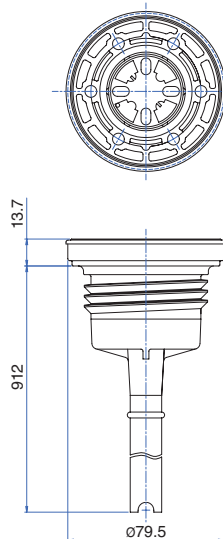
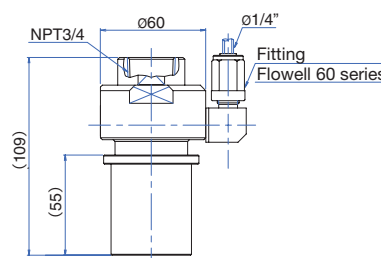

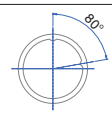
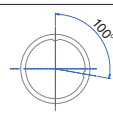
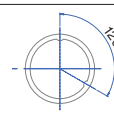
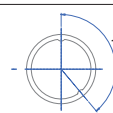
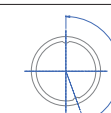
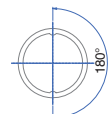
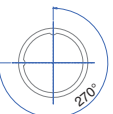
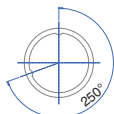

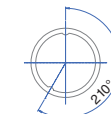

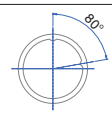
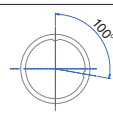
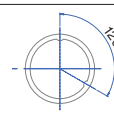
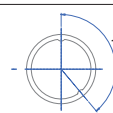
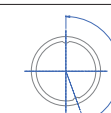
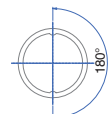
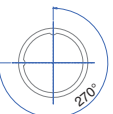
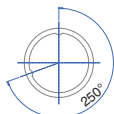

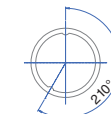

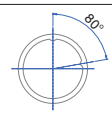
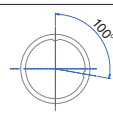
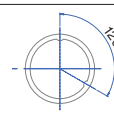
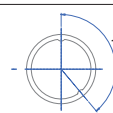
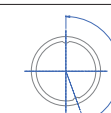
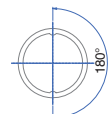
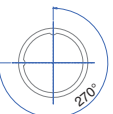
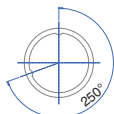

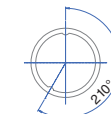


Fluid pressure	250kPa
Fluid temperature range	5~60℃
Ambient temperature range	5~40℃

## Dimensions

	Socket	Plug
Liquid	<p><b>USE-S-</b> (Body material: PCTFE)  <b>USE6F-S-</b> (Body material: PFA)</p> <p>Key groove number            04~09, 13~16: Natural            3F20G~3F29G: Green            3F30N~3F39N: Navy</p> <p>Connection size: NPT3/4</p> 	<p><b>USE-P-L-</b> (O-ring: FKM)  <b>USE-P-L-E</b> (O-ring: EPDM)</p> <p>Key groove number            04~09, 13~16: Natural            20G~29G: Green            30N~39N: Navy</p> 
Liquid & Gas	<p><b>USE-SGR-L60</b> (Body material: PCTFE)  <b>USE6F-SGR-L60</b> (Body material: PFA)</p> <p>Key groove number            04~09, 13~16: Natural            3F20G~3F29G: Green            3F30N~3F39N: Navy</p> <p>Connection size:            Liquid: NPT3/4            Gas: 1/4"</p> 	
Gas	<p><b>PDC-S-G</b>  <b>PDC6F-S-G</b></p> <p>Connection size: NPT3/8</p> 	<p><b>USE-P-G</b> (O-ring: FKM)  <b>USE-P-G-E</b> (O-ring: EPDM)</p> 


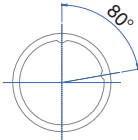
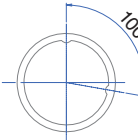
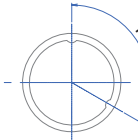
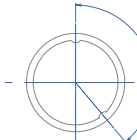
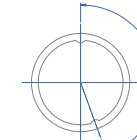
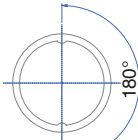
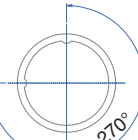
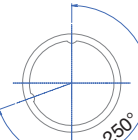
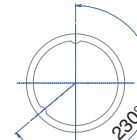
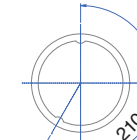
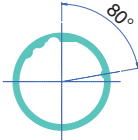
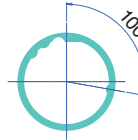
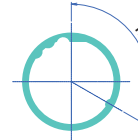
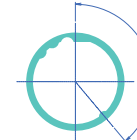
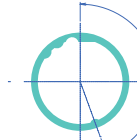

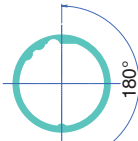



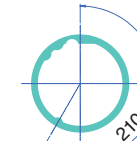
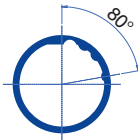
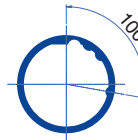
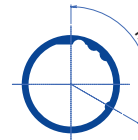

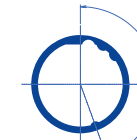
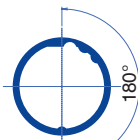
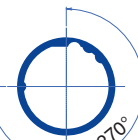

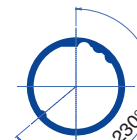


## Quick Connectors

## Model USE / Model CSE One-way PE Connector Comparison table

Comparison table													
Model	USE	CSE											
Type of thread on drum	Mauser thread 	Buttress thread 											
Plug	<p>●Example Type : USE-P-L-09</p> 	<p>●Example Type : CSE-P-L-09</p> 											
Socket	 <p>●USE-SGR-09-L60 Wetted parts : PCTFE, PTFE, Kalrez®</p> <p>●USE6F-SGR-09-L60 Wetted parts : PFA, PTFE, Kalrez®</p>												
Key groove	<p>●Connection-error prevention mechanism</p> <table><tr><td rowspan="2"></td><td>04 </td><td>05 </td><td>06 </td><td>07 </td><td>08 </td></tr><tr><td>09 </td><td>13 </td><td>14 </td><td>15 </td><td>16 </td></tr></table>			04 	05 	06 	07 	08 	09 	13 	14 	15 	16 
	04 	05 		06 	07 	08 							
	09 	13 	14 	15 	16 								
Jig	Type : PDC-AIN  <p>Mounting the plug to the drum Removing the plug from the drum</p>	Type : USE-TOOL  <p>Removing the cap from the bracket Installing the cap to the bracket</p>											

# Model USE One-way PE Connector (Key Groove Selection Table)

## Key Groove List

<b>Standard Key groove</b> 	04	05	06	07	08
					
	09	13	14	15	16
					
	20G	21G	22G	23G	24G
					
<b>Type-G Key groove</b> 	25G	26G	27G	28G	29G
					
	30N	31N	32N	33N	34N
					
	35N	36N	37N	38N	39N
					
<b>Type-N Key groove</b> 					

Please contact us for key groove selection.

# Quick Connectors

## ● Safety Instructions



- Before using the product, read the instruction manual carefully and use it correctly.  
We are not liable for accidents that occurred during use other than those described in the instruction manual.
- Use this product within the specified range.
- Confirm the compatibility of the product material with the type of fluid and ambient atmosphere before use.
- Do not detach quick connectors under pressurized conditions.  
It may cause chemical fluid to splash out, and injuries or serious accidents.
- Using inappropriate O-ring material may cause leakage. Before specifying O-ring material to be used, make sure that is compatible with fluid type and temperature.
- Do not use fluids that contain refuse or foreign matter, as this may interfere with normal function.
- Abrasive or coagulate fluids may interfere with normal function, and take measures to prevent stacking residue on the wetted parts.
- Do not use quick connectors in applications subject to flexural or tensile stress.
- Make sure that every detachments of quick connectors are done in a clean, dust-free area.
- Do not use the product with excessive vibration or shock.
- When detach quick connectors, always wear a protective face mask, gloves, clothing.
- Fully examine and select the appropriate material for the wetted parts.
- Do not use the product in a harsh environment where fluid temperature changes rapidly, as this may cause damage to the product.
- When storing the USE type connector, manage it indoors in a dark place or a place not exposed to ultraviolet rays.
- The data is reference value, not a guaranteed value.
- There is a risk of cracking connector material based upon the chemical solution used.  
Please be cautious to select the material before use.
- Periodic inspection should be performed for safety when using chemical solution with high permeability for long time.
- If static electricity is generated, the equipment may seriously damage.  
Please use after applying antistatic measures.
- Do not warm up the product directly from the outside.  
It may cause external or internal leakage failure.

- Kalrez® is a registered trademark of DuPont.
- Flowell 60 series is a trademark of Flowell Co., Ltd.