



## **QC, QH, QK SERIES QUICK CONNECTORS**

# COMPANY INTRODUCTION

GENTEC® Company Overview

Solutions for Life



## Company Overview

Genstar Technologies is a global leader in Gas Flow Control Systems for the industrial, specialty gas and medical sectors. We pride ourselves in our ability to provide our customers with high quality, value-added products and services that go beyond the industry standards. As a result, we have a global network of thousands of satisfied customers in over 60 countries.

## Our Team

Our highly educated team of engineers, salespeople, technicians, managers, and customer service personnel are dedicated to providing you with products with the highest quality, reliability and performance. We hold the highest standards to our manufacturing processes; our total process management maximizes our production efficiency while ensuring product quality.

We work closely with all of our customers to design products specific to your needs. This includes developing new products, redesigning existing products, and customizing configuration / packaging. It is our priority to foster a strong relationship with each and every customer.



## Quality Assurance

All of our products are manufactured under stringent quality control. We are ISO 9001:2001, ISO13485, and API certified. Our products meet UL, CE, SEMI, and various international standards and certifications.

## Manufacturing Capabilities

The manufacturing facility is equipped with CNC machining centers, electropolishing equipment, and precision automatic orbital welding systems, among other features, to ensure the production of the highest quality products.

## Clean Room Facilities

Our class 100 clean rooms are designed for Ultra High Purity (UHP) products. UHP products undergo precision machining, surface finishing, electro-polishing and passivation. All UHP products are cleaned by 18 MΩ DI water in a cascade ultrasonic tank.

To ensure the highest UHP product quality, they are then vacuum-dried and double-bagged.

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Solutions for Life

GENTEC® Quick Connectors



02-03 QC Series  
Quick Connectors



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Quick Connectors

# QC SERIES

QC Series Quick Connectors

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SS-QC4-FNT4

SS-QC4F-FNT4

SS-QC4M-FNT4

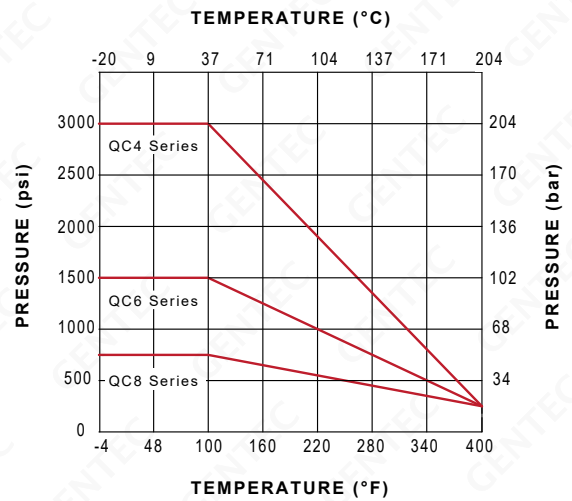
## Features

- Made of 316 stainless steel
- Corrosion resistant sealing ring, anti-oxidation, long lifespan
- Push-to-connect coupling enables quick, easy operation
- Durable ball-locking mechanism to assure reliable connection

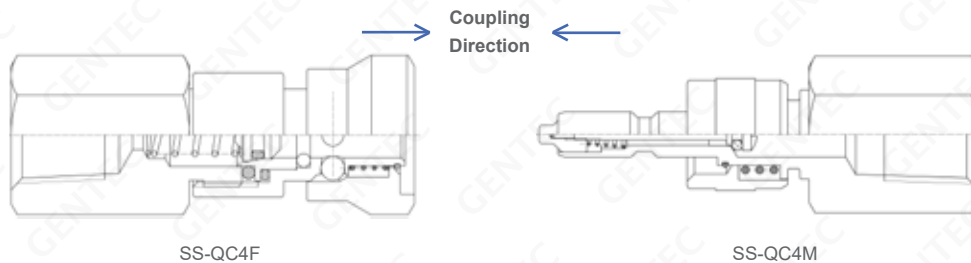
## Pressure-Temperature Ratings

Temperature	QC4	QC6	QC8
<b>When Coupling</b>			
-4°F(-20°C)	3000 psi (206 bar)	1500 psi (103 bar)	750 psi (52 bar)
40°F(204°C)	250 psi (17 bar)	250 psi (17 bar)	250 psi (17 bar)
<b>When Uncoupling</b>			
/	250 psi (17 bar)	250 psi (17 bar)	250 psi (17 bar)

Pressure ratings are limited by connection fittings



## Materials of Construction



Component	Material	Component	Material	Component	Material
Body	316	Spring	316	Body Insert	316
O-ring	Fluororubber	Snap Rings	316		

## Dimensions

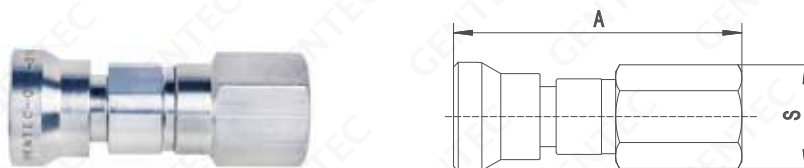
Dimensions are for reference only and are subject to change.

### Stems



Model No	Connection	CV	Dimensions in. (mm)	
			Length A	Outer Diameter S
SS-QC4M-FNT4	1/4" Female NPT	0.2	2.22" (56.4)	0.75" (19.1)
SS-QC4M-M14RH	M14 x 1.5 RH	0.2	2.22" (56.4)	0.75" (19.1)
SS-QC6M-FNT6	3/8" Female NPT	0.5	2.47" (62.7)	0.88" (22.2)
SS-QC8M-FNT8	1/2" Female NPT	1.3	2.86" (72.7)	1.06" (27.0)

### Bodies



Model No	Connection	Dimensions in. (mm)	
		Length A	Outer Diameter S
SS-QC4F-FNT4	1/4" Female NPT	2.18" (55.3)	0.91" (23.1)
SS-QC4F-M14RH	M14 x 1.5 RH	2.18" (55.3)	0.91" (23.1)
SS-QC6F-FNT6	3/8" Female NPT	2.42" (61.5)	1.03" (26.2)
SS-QC8F-FNT8	1/2" Female NPT	2.93" (74.4)	1.21" (30.7)

### Insertion Depth

Series	Insertion Depth in. (mm)
SS-QC4	0.60" (15.3)
SS-QC6	1.10" (29.6)
SS-QC8	1.53" (38.9)

To calculate overall length in the coupled position, subtract the insertion depth from any overall stem and body combination length.

### Operation Information

- Use filters ahead of quick-connectors
- Use body and stem protectors or dust caps on uncoupled bodies and stems
- Keep body and stem aligned when coupling or uncoupling
- Couple and uncouple quick-connectors at room temperature
- Do not uncouple under pressure
- Do not rotate quick-connectors while coupled
- Re-lubricate stem seal O-rings periodically.

### Ordering Information

SS -	QC4	F -	FNT4
Body	Serial Number	Module	Connection
SS: 316	QC4, QC6, QC8	None: Stem+Body F: Body M: Stem	FNT4 FNT6 FNT8 .....

# QH SERIES

QH Series Full Flow Quick Connectors

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SS-QH8-TF8

SS-QH8F-TF8

SS-QH8M-TF8

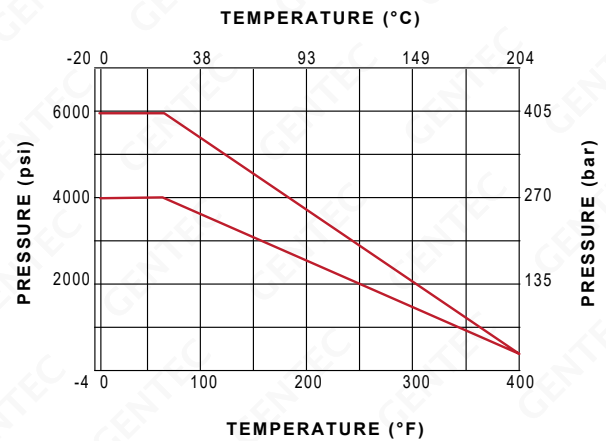
## Features

- Made of 316 stainless steel
- With double-end shutoff function, both the body and stem can be sealed independently
- Built-in valve shut activates when the stem and body are uncoupled to prevent fluid leakage
- Various sealing materials available for suitable media and working temperatures
- Reliable and durable

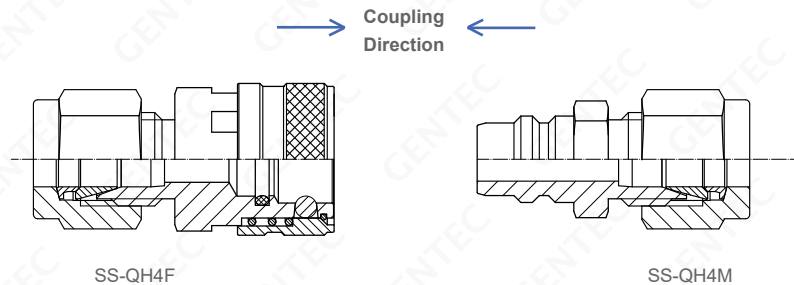
## Pressure-Temperature Ratings

Temperature	QH4, QH6, QH8	QH10
<b>When Coupling</b>		
-4°F (-20°C)	6000 psi (414 bar)	4000 psi (276 bar)
400°F (204°C)	100 psi (6.9 bar)	100 psi (6.9 bar)

Pressure ratings are limited by connection fittings



## Materials of Construction

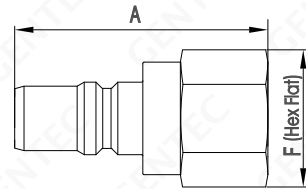


Component	Material	Component	Material	Component	Material
Snap Ring	304	Sleeve	316	Stem	316
Locking Balls	9Cr18Mo	O-ring	Fluororubber	Body	304
Spring	316				

### Dimensions

Dimensions are for reference only and are subject to change.

### Stems



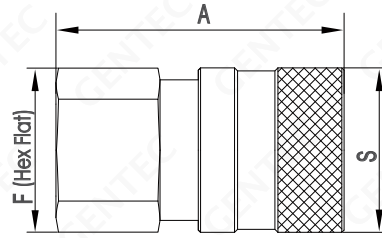
Model No	Connection	CV	Dimensions in. (mm)	
			Length A	F
SS-QH4M-FNT2	1/8" Female NPT	2.2	1.52" (38.5)	S19
SS-QH4M-TF4	1/4" GENLOK	2.2	1.52" (38.5)	S14
SS-QH4M-TF6M	6 mm GENLOK	2.2	1.52" (38.5)	S14
SS-QH6M-FGS4	G 1/4"	2.8	1.60" (40.5)	S19
SS-QH6M-FNT4	1/4" Female NPT	2.8	1.60" (40.5)	S19
SS-QH6M-FRT4	Rc 1/4"	2.8	1.60" (40.5)	S19
SS-QH6M-NT4	1/4" NPT	2.8	1.66" (42.0)	/
SS-QH6M-RT4	R 1/4"	2.8	1.66" (42.0)	/
SS-QH6M-S14	M14*1.5RH	2.8	1.66" (42.0)	/
SS-QH6M-TF6	3/8" GENLOK	2.8	1.58" (40.0)	S18
SS-QH8M-NT6	3/8" NPT	13	1.66" (42.0)	
SS-QH8M-FNT6	3/8" Female NPT	13	1.61" (41.0)	S28.6
SS-QH8M-FRT6	R c3/8"	13	1.61" (41.0)	S28.6
SS-QH8M-TF8	1/2" GENLOK	13	1.58" (40.0)	S22
SS-QH8M-TF12M	12mm GENLOK	13	1.58" (40.0)	S22
SS-QH10M-FGS8	G 1/2"	20	1.61" (41.0)	S28.6
SS-QH10M-FNT8	1/2" Female NPT	20	1.61" (41.0)	S28.6
SS-QH10M-NT8	1/2" NPT	20	1.66" (42.0)	/
SS-QH10M-RT8	R 1/2"	20	1.66" (42.0)	/

# QH SERIES

QH Series Full Flow Quick Connectors

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## Bodies



Model No	Connection	CV	Dimensions in.(mm)			
			Length A	Outer Diameter	S	F
SS-QH4F-FNT2	1/8" Female NPT	2.2	1.58" (40.0)	0.87" (22.0)		S19
SS-QH4F-TF4	1/4" GENLOK	2.2	1.58" (40.0)	0.87" (22.0)		S18
SS-QH4F-TF6M	6 mm GENLOK	2.2	1.58" (40.0)	0.87" (22.0)		S18
SS-QH6F-FGS4	G 1/4"	2.8	1.52" (38.5)	0.87" (22.0)		S19
SS-QH6F-FNT4	1/4" Female NPT	2.8	1.52" (38.5)	0.87" (22.0)		S19
SS-QH6F-FRT4	Rc 1/4"	2.8	1.52" (38.5)	0.87" (22.0)		S19
SS-QH6F-NT4	1/4" NPT	2.8	1.61" (41.0)	0.87" (22.0)		/
SS-QH6F-RT4	R 1/4"	2.8	1.61" (41.0)	0.87" (22.0)		/
SS-QH6F-S14	M14*1.5RH	2.8	1.61" (41.0)	0.87" (22.0)		/
SS-QH6F-TF6	3/8" GENLOK	2.8	1.61" (41.5)	0.87" (22.0)		S18
SS-QH8F-NT6	3/8" NPT	13	1.83" (46.5)	1.30" (33.0)		/
SS-QH8F-FNT6	3/8" Female NPT	13	1.66" (42.0)	1.30" (33.0)		S28.6
SS-QH8F-FRT6	Rc 3/8"	13	1.66" (42.0)	1.30" (33.0)		S28.6
SS-QH8F-TF8	1/2" GENLOK	13	1.83" (46.5)	1.30" (33.0)		S27
SS-QH8F-TF12M	12mm GENLOK	13	1.83" (46.5)	1.30" (33.0)		S27
SS-QH10F-FGS8	G 1/2"	20	1.66" (42.0)	1.30" (33.0)		S28.6
SS-QH10F-FNT8	1/2" Female NPT	20	1.66" (42.0)	1.30" (33.0)		S28.6
SS-QH10F-NT8	1/2" NPT	20	1.83" (46.5)	1.30" (33.0)		/
SS-QH10F-RT8	R 1/2"	20	1.83" (46.5)	1.30" (33.0)		/

## Insertion Depth

Series	Insertion Depth in.(mm)
SS-QH4	0.78" (19.8)
SS-QH6	0.81" (20.5)
SS-QH8	0.81" (20.5)
SS-QH10	0.81" (20.5)

To calculate overall length in the coupled position, subtract the insertion depth from any overall stem and body combination length.

## Ordering Information

SS -	QH4	F -	FNT4
Body	Serial Number	Module	Connection
S4: 304	QH4, QH6 QH8, QH10	None: Stem+Body F: Body M: Stem	FNT4 FNT6 FNT8 FNT10

## Operation Information

- Use Body and stem protectors or dust caps on uncoupled bodies and stems
- Keep body and stem aligned when coupling or uncoupling
- Couple and uncouple quick-connectors at room temperature
- Do not uncouple under pressure
- Do not rotate quick-connectors while coupled
- Re-lubricate stem seal O-rings periodically





SS-QKF-FRT4

SS-QKM-FRT4

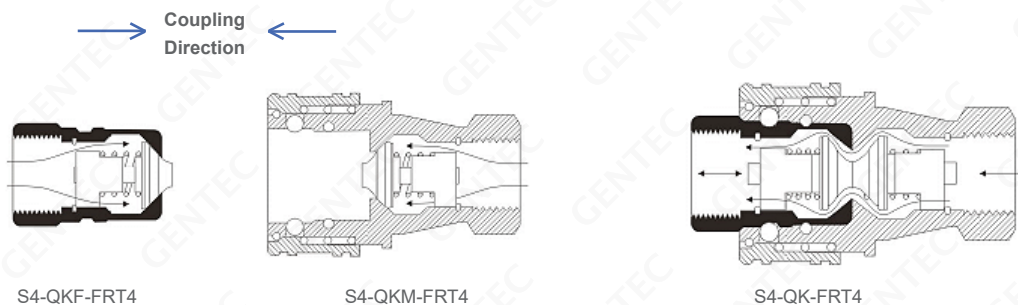
## Features

- Made of 304 stainless steel
- With double-end shutoff function, both the body and stem can be sealed independently
- Built-in valve shut activates when the stem and body are uncoupled to prevent fluid leakage
- Various sealing materials available for suitable media and working temperatures
- Reliable and durable

## Size-Working Pressure

Dimensions	Working Pressure	Maxmum Working Pressure	Remark
1/4", 3/8"	1060 psi (74 bar)	1420 psi (98 bar)	
1/2", 3/4", 1"	640 psi (44 bar)	920 psi (64 bar)	When the O-ring is made of FKM, the operating temperature range is 14°F to 356°F
1 1/4", 1 1/2"	430 psi (29 bar)	640 psi (44 bar)	When the O-ring is made of NBR, the operating temperature range is 14°F to 176°F
2"	280 psi (19 bar)	430 psi (29 bar)	

## Materials of Construction



S4-QKF-FRT4

S4-QKM-FRT4

S4-QK-FRT4

Component	Material	Component	Material	Component	Material
Snap Ring	304	Sleeve	316	Stem	304
Locking Balls	9Cr18Mo	O-ring	FKM, NBR*	Body	304
Spring	304				

\*: FKM is standard, NBR is optional

# QK SERIES

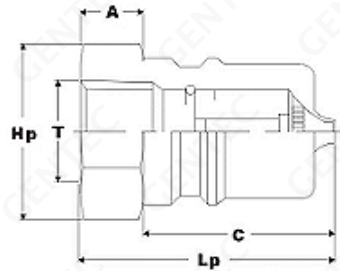
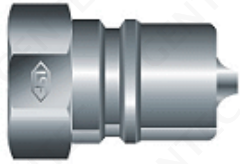
QK Series Double-End Large-Caliber Quick Connectors

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## Dimensions

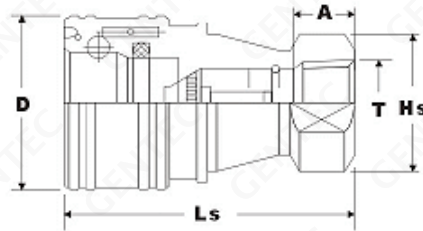
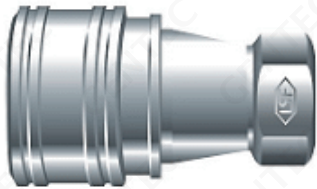
Dimensions are for reference only and are subject to change.

### Stems



Model No	Connection	Dimensions in. (mm)				
		Lp	C	A	Hp	T
S4-QKM-FRT4	1/4 PT	1.42" (36)	0.87" (22)	0.55" (14)	Hex. 17	1/4 PT
S4-QKM-FRT6	3/8 PT	1.57" (40)	0.82" (25)	0.59" (15)	Hex. 21	3/8 PT
S4-QKM-FRT8	1/2 PT	1.73" (44)	1.10" (28)	0.63" (16)	Hex. 27	1/2 PT
S4-QKM-FRT12	3/4 PT	2.13" (54)	1.42" (36)	0.71" (18)	Hex. 35	3/4 PT
S4-QKM-FRT16	1" PT	2.44" (62)	1.57" (40)	0.79" (20)	Hex. 41	1" PT
S4-QKM-FRT20	1 1/4" PT	2.76" (70)	1.77" (45)	0.94" (24)	*1Hex. 54	1 1/4" PT
S4-QKM-FRT24	1 1/2" PT	2.95" (75)	1.93" (49)	0.94" (24)	*2Hex. 63	1 1/2" PT
S4-QKM-FRT32	2" PT	3.15" (80)	2.05" (52)	1.06" (27)	2Hex. 77*84 φ	2" PT

### Bodies



Model No	Connection	Dimensions in. (mm)				
		Ls	C	A	Hs	T
S4-QKF-FRT4	1/4 PT	2.28" (58)	1.10" (28)	0.55" (14)	2Hex. 17*22 φ	1/4 PT
S4-QKF-FRT6	3/8 PT	2.56" (65)	1.38" (35)	0.59" (15)	2Hex. 22*25 φ	3/8 PT
S4-QKF-FRT8	1/2 PT	2.83" (72)	1.77" (45)	0.59" (15)	2Hex. 26*32 φ	1/2 PT
S4-QKF-FRT12	3/4 PT	3.54" (90)	2.17" (55)	0.75" (19)	2Hex. 33*39 φ	3/4 PT
S4-QKF-FRT16	1" PT	4.02" (102)	2.56" (65)	0.79" (20)	2Hex. 41*48 φ	1" PT
S4-QKF-FRT20	1 1/4" PT	4.53" (115)	3.05" (77.5)	0.94" (24)	2Hex. 54*59 φ	1 1/4" PT
S4-QKF-FRT24	1 1/2" PT	4.88" (124)	3.44" (87.5)	0.94" (24)	2Hex. 63*69 φ	1 1/2" PT
S4-QKF-FRT32	2" PT	5.20" (132)	4.29" (109)	1.06" (27)	2Hex. 77*86 φ	2" PT

## Operation Information

### When uncoupling

- Instant coupling between stem and body, built-in valve closes automatically to prevent fluid leakage

### When Coupling

- When coupling, the built-in valve automatically opens, allowing the fluid medium to flow freely. The stem and body connection is sealed with an O-ring to prevent any leakage
- Dust, foreign matter or damage during use may cause leakage

## Ordering Information

S4 - Body	QK Serial Number	F - Module	FRT4 Connection
S4: 304	QK	None: Stem+Body F: Body M: Stem	FRT4 FRT6 FRT8 FRT12 FRT16 FRT20 FRT24 FRT32



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