



## Q Series

### Instrumentation Quick Connectors



#### Applications

- Gauge Calibration
- Sampling System
- Portable Test Equipment
- Laboratory Equipment
- Gas Distribution
- Biopharmaceutical

#### Design and Engineering

- End Connection Size from 1/4" ~ 1/2" (6mm~12mm)
- Working pressure up to 3,000psig (206bar)
- Temperature up to 400°F (204°C) with Viton O-Ring
- Long Life cycle.

### Operation of Hy-Lok Quick Connectors

- Use filters in front of quick connectors.
- Protect uncoupled body and stem with body and stem protectors or dust caps.
- Keep body and stem aligned when coupling and uncoupling.
- Couple and uncouple the quick connectors at room temperature.
- Couple and uncouple the quick connectors during system cleaning operation.
- Support hanging hoses or other equipments to prevent side load.
- Re-lubricate stem seal o-ring periodically.

### Pressure-Temperature Ratings

Temperature °F (°C)	316 SS			Brass		
	Q1	Q2	Q3	Q1	Q2	Q3
Pressure Rating, psig(bar)						
Coupled						
70(20)	3000 (206)	1500 (103)	750 (52)	2000 (137)	1000 (69)	500 (34)
400 (204)	250 (17)					
Uncoupled and When Coupling and Uncoupling						
70 (20)	250 (17)					

### Option of O-Ring Materials

Various O-ring materials, available whose temperature ratings are shown below.

Material	Temperature Rating
NBR	-10°F to 250°F (-23°C to 121°C)
Kalrez	-10°F to 600°F (-23°C to 315°C)
Neoprene	-40°F to 250°F (-40°C to 121°C)
Ethylene Propylene	-50°F to 300°F (-46°C to 149°C)

### Features & Benefits

- Easy to use
- Minimum equipment shutdown.
- No tools required to make or break a connection.
- No probability of cross threading, galling, under or over-tightening.
- Interchangeable with same type of Swagelok, Parker, Hoke and TOMCO components.
- Single End shut-Off : This type of quick connector offers body shut-off valve function instead of stem shut-off.
- Double End shut-Off : This type of quick connector has same function with single End shut-off but, it has a small poppet valve in the stem. The pressure is automatically shut-off when the stem is removed from the body. It minimizes a spillage.

### Spillage and Air Inclusion

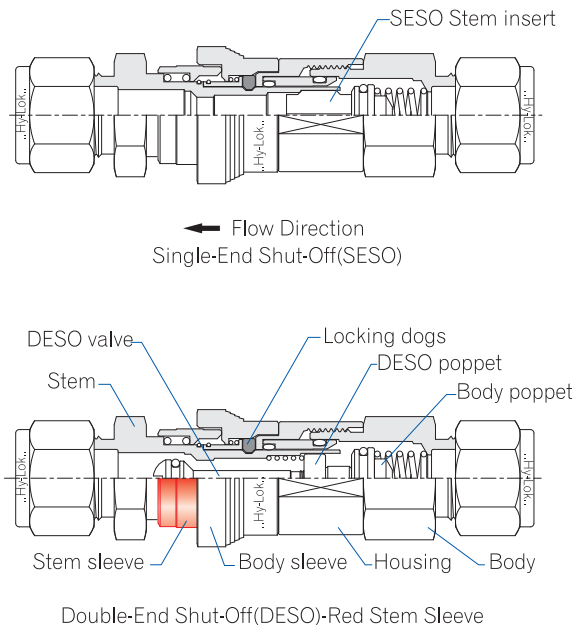
Series	Spillage cm <sup>3</sup>	Air Inclusion cm <sup>3</sup>
Q1	0.3	0.3
Q2	1.0	1.0
Q3	3.0	3.0

**Spillage** - Spillage is the amount of system fluid that emit when a quick connector is uncoupled(DES0 only)

**Air Inclusion** - Air inclusion is the amount of air trapped between the body and stem that enter the system when a quick connect is coupled(DES0 only)

### Maximum Flow Cv Rate at 70 °F(20 °C)

Series	Water Flow u.s. gal/min (L/min)
Q1	4 (15.1)
Q2	6 (22.7)
Q3	10 (37.8)



### Technical Data

#### Materials of Construction

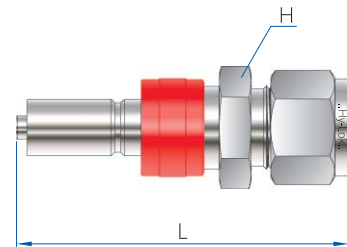
Description	Material	
	316 SS	Brass
Locking dogs	PTFE -coated 316SS powdered metal	
SESO stem sleeve	316 SS	Brass
DESO stem sleeve	Polyurethane enamel coated 316	Polyurethane enamel coated brass
Body sleeve	316 SS powdered metal	Brass
Snap rings	Stainless Steel	
Springs*	Stainless Steel	
O-rings*	Viton	
SESO stem insert*	316 SS	Brass
Body poppet, Body insert, DESO valve, DESO poppet*	316 SS	Brass
Body, housing, stem*	316 SS	Brass

Note : "\*" marked are wetted parts, Lubricant is silicone based.

Stems

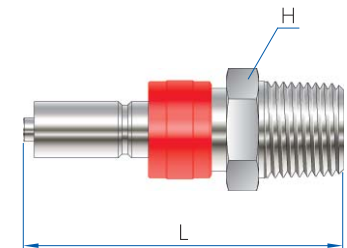
Hy-Lok Tube Ends

Part number		Tube O.D	Series	Flow Coefficient(Cv)		Dimensions					
SESO	DESO			SESO	DESO	L				H	
						Width across flat		mm		in.	
Q1SSH- 2T	Q1DSH- 2T	1/8"	Q1	0.08	0.08	58.9	2.32	60.4	2.77	15.8	5/8
Q1SSH- 4T	Q1DSH- 4T	1/4"	Q1	0.30	0.20	59.9	2.36	61.5	2.42	15.8	5/8
Q2SSH- 6T	Q2DSH- 6T	3/8"	Q2	1.00	0.50	64.0	2.52	67.1	2.64	19.1	3/4
Q3SSH- 8T	Q3DSH- 8T	1/2"	Q3	2.40	1.50	75.2	2.96	80.3	3.16	23.8	15/16
Q1SSH- 6M	Q1DSH- 6M	6mm	Q1	0.30	0.20	59.9	2.36	61.5	2.42	15.8	5/8
Q2SSH-10M	Q2DSH-10M	10mm	Q2	1.00	0.50	67.3	2.65	70.4	2.79	19.1	3/4
Q3SSH-12M	Q3DSH-12M	12mm	Q3	2.40	1.50	75.2	2.96	80.3	3.16	23.8	15/16



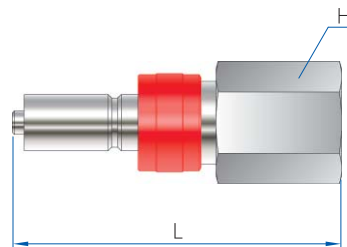
Male Pipe

Part number		Pipe Size	Series	Flow Coefficient(Cv)		Dimensions					
SESO	DESO			SESO	DESO	L				H	
						Width across flat		mm		in.	
Q1SSM-2N	Q1DSM-2N	1/8"NPT	Q1	0.3	0.2	52.6	2.07	54.1	2.13	15.8	5/8
Q1SSM-4N	Q1DSM-4N	1/4"NPT	Q1	0.3	0.2	56.4	2.22	57.9	2.28	15.8	5/8
Q2SSM-4N	Q2DSM-4N	1/4"NPT	Q2	0.9	0.5	58.9	2.32	61.9	2.44	19.1	3/4
Q2SSM-6N	Q2DSM-6N	3/8"NPT	Q2	0.8	0.5	59.7	2.35	62.7	2.47	19.1	3/4
Q3SSM-8N	Q3DSM-8N	1/2"NPT	Q3	2.0	1.3	72.1	2.84	77.2	3.04	23.8	15/16
Q1SSM-4R	Q1DSM-4R	1/4"PT	Q1	0.3	0.2	56.4	2.22	57.9	2.28	15.8	5/8
Q2SSM-6R	Q2DSM-6R	3/8"PT	Q2	0.8	0.5	59.7	2.35	62.7	2.47	19.1	3/4
Q3SSM-8R	Q3DSM-8R	1/2"PT	Q3	2.0	1.3	72.1	2.84	77.2	3.04	23.8	15/16



Female Pipe

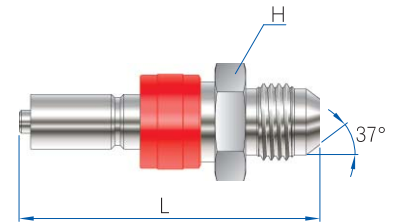
Part number		Pipe Size	Series	Flow Coefficient(Cv)		Dimensions					
SESO	DESO			SESO	DESO	L				H	
						Width across flat		mm		in.	
Q1SSF2N	Q1DSF-2N	1/8"NPT	Q1	0.3	0.2	51.1	2.01	52.6	2.07	15.8	5/8
Q1SSF-4N	Q1DSF-4N	1/4"NPT	Q1	0.3	0.2	57.4	2.26	58.9	2.32	19.1	3/4
Q2SSF-4N	Q2DSF-4N	1/4"NPT	Q2	0.9	0.5	59.7	2.35	62.7	2.47	19.1	3/4
Q2SSF-6N	Q2DSF-6N	3/8"NPT	Q2	0.8	0.5	59.7	2.35	62.7	2.47	22.2	7/8
Q3SSF-8N	Q3DSF-8N	1/2"NPT	Q3	2.0	1.3	71.6	2.82	76.7	3.02	26.9	1 1/16
Q1SSF-4R	Q1DSF-4R	1/4"PT	Q1	0.3	0.2	57.4	2.26	58.9	2.32	19.1	3/4
Q2SSF-6R	Q2DSF-6R	3/8"PT	Q2	0.8	0.5	59.7	2.35	62.7	2.47	22.2	7/8
Q3SSF-8R	Q3DSF-8R	1/2"PT	Q3	2.0	1.3	71.6	2.82	76.7	3.02	26.9	1 1/16



Red colored stem sleeve : DESO type.  
Dimensions are for reference only, subject to change.

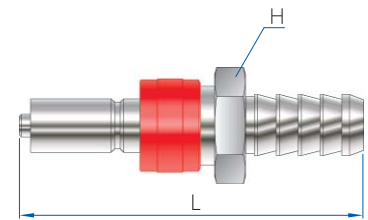
37° Flared Tube Ends

Part number		Tube O.D	Series	Flow Coefficient(Cv)		Dimensions					
SESO	DESO			SESO	DESO	L				H	
						mm	in.	mm	in.	Width across flat	
Q1SS3F-4T	Q1DS3F-4T	1/4"	Q1	0.3	0.2	56.1	2.21	57.7	2.27	15.8	5/8
Q2SS3F-6T	Q2DS3F-6T	3/8"	Q2	1.0	0.5	58.8	2.31	61.9	2.44	19.1	3/4
Q3SS3F-8T	Q3DS3F-8T	1/2"	Q3	2.4	1.5	70.1	2.76	75.2	2.96	23.8	15/16



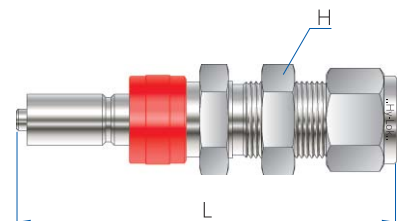
Hose Barb

Part number		Tube O.D	Series	Flow Coefficient(Cv)		Dimensions					
SESO	DESO			SESO	DESO	L				H	
						mm	in.	mm	in.	Width across flat	
Q1SSHB-4T	Q1DSHB-4T	1/4"	Q1	0.3	0.2	62.2	2.45	63.8	2.51	15.8	5/8
Q2SSHB-6T	Q2DSHB-6T	3/8"	Q2	1.0	0.5	66.8	2.63	69.9	2.75	19.1	3/4
Q3SSHB-8T	Q3DSHB-8T	1/2"	Q3	2.0	1.3	77.3	3.04	82.4	3.24	23.8	15/16



Hy-Lok Bulkhead Tube Ends

Part number		Tube O.D	Series	Dimensions									
SESO	DESO			L				Min Panel Hole Dia		Max Panel Thickness		H	
				SESO		DESO		mm	in.	mm	in.	Width across flat	
				mm	in.	mm	in.					mm	in.
Q1SSBH- 4T	Q1DSBH- 4T	1/4"	Q1	69.6	2.74	71.1	2.80	11.9	15/32	6.4	0.25	15.8	5/8
Q2SSBH- 6T	Q2DSBH- 6T	3/8"	Q2	74.2	2.92	78.0	3.27	15.1	19/32	6.9	0.27	19.1	3/4
Q3SSBH- 8T	Q3DSBH- 8T	1/2"	Q3	87.1	3.43	92.2	3.63	19.8	25/32	6.6	0.26	23.8	15/16
Q1SSBH- 6M	Q1DSBH- 6M	6mm	Q1	69.6	2.74	71.1	2.80	11.9	29/64	6.4	0.25	16.0	-
Q2SSBH-10M	Q2DSBH-10M	10mm	Q2	77.7	3.06	78.7	3.10	16.7	21/32	6.9	0.27	22.0	-
Q3SSBH-12M	Q3DSBH-12M	12mm	Q3	87.1	3.43	92.2	3.63	19.6	49/64	6.6	0.26	24.0	-

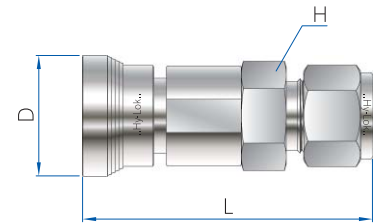


Red colored stem sleeve : DESO type.  
Dimensions are for reference only, subject to change.

Bodies

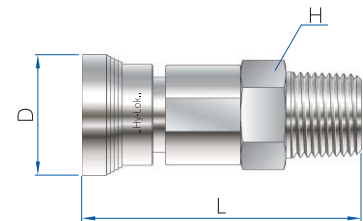
Hy-Lok Tube Ends

Part number	Tube O.D	Series	L		D		H Width across flat	
			mm	in.	mm	in.	mm	in.
Q1BH - 2T	1/8"	Q1	57.4	2.26	23.1	0.91	15.8	5/8
Q1BH - 4T	1/4"	Q1	58.4	2.30	23.1	0.91	15.8	5/8
Q2BH - 6T	3/8"	Q2	65.5	2.58	26.2	1.03	19.1	3/4
Q3BH - 8T	1/2"	Q3	78.5	3.09	30.7	1.21	23.8	15/16
Q1BH - 6M	6mm	Q1	58.4	2.30	23.1	0.91	15.8	5/8
Q2BH - 10M	10mm	Q2	68.1	2.68	26.2	1.03	19.1	3/4
Q3BH - 12M	12mm	Q3	78.5	3.09	30.7	1.21	23.8	15/16



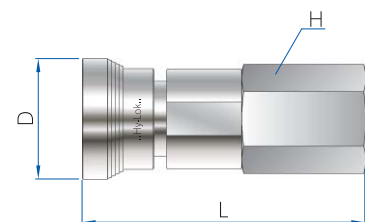
Male Pipe

Part number	Pipe Size	Series	L		D		H Width across flat	
			mm	in.	mm	in.	mm	in.
Q1BM - 2N	1/8" NPT	Q1	51.1	2.01	23.1	0.91	15.8	5/8
Q1BM - 4N	1/4" NPT	Q1	54.9	2.16	23.1	0.91	15.8	5/8
Q2BM - 4N	1/4" NPT	Q2	60.5	2.38	26.2	1.03	19.1	3/4
Q2BM - 6N	3/8" NPT	Q2	60.5	2.38	26.2	1.03	19.1	3/4
Q3BM - 8N	1/2" NPT	Q3	75.4	2.97	30.7	1.21	23.8	15/16
Q1BM - 4R	1/4" PT	Q1	54.9	2.16	23.1	0.91	15.8	5/8
Q2BM - 6R	3/8" PT	Q2	60.5	2.38	26.2	1.03	19.1	3/4
Q3BM - 8R	1/2" PT	Q3	75.4	2.97	30.7	1.21	23.8	15/16



Female Pipe

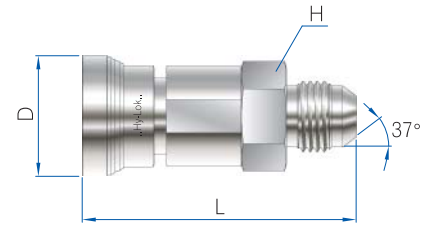
Part number	Pipe Size	Series	L		D		H Width across flat	
			mm	in.	mm	in.	mm	in.
Q1BF - 2N	1/8" NPT	Q1	54.9	2.16	23.1	0.91	15.8	5/8
Q1BF - 4N	1/4" NPT	Q1	61.5	2.42	23.1	0.91	19.1	3/4
Q2BF - 4N	1/4" NPT	Q2	64.5	2.54	26.2	1.03	19.1	3/4
Q2BF - 6N	3/8" NPT	Q2	65.3	2.57	26.2	1.03	22.2	7/8
Q3BF - 8N	1/2" NPT	Q3	81.8	3.22	30.7	1.21	26.9	1 1/16
Q1BF - 4R	1/4" PT	Q1	61.5	2.42	23.1	0.91	19.1	3/4
Q2BF - 6R	3/8" PT	Q2	65.3	2.57	26.2	1.03	22.2	7/8
Q3BF - 8R	1/2" PT	Q3	81.8	3.22	30.7	1.21	26.9	1 1/16



Dimensions are for reference only, subject to change.

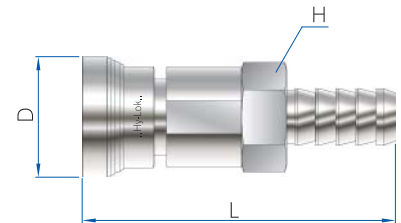
**37° Flared Tube Ends**

Part number	Tube O.D	Series	L		D		H Width across flat	
			mm	in.	mm	in.	mm	in.
Q1B3F-4T	1/4"	Q1	54.6	2.15	23.1	0.91	15.8	5/8
Q2B3F-6T	3/8"	Q2	60.3	2.37	26.2	1.03	19.1	3/4
Q3B3F-8T	1/2"	Q3	73.4	2.89	30.7	1.21	23.8	15/16



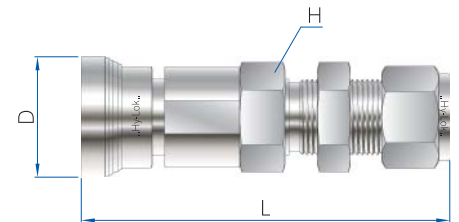
**Hose Barb**

Part number	Tube O.D	Series	L		D		H Width across flat	
			mm	in.	mm	in.	mm	in.
Q1BHB-4T	1/4"	Q1	60.7	2.39	23.1	0.91	15.8	5/8
Q2BHB-6T	3/8"	Q2	68.3	2.69	26.2	1.03	19.1	3/4
Q3BHB-8T	1/2"	Q3	80.6	3.17	30.7	1.21	23.8	15/16



**Hy-Lok Bulkhead Tube Ends**

Part number	Tube O.D	Series	L		D		Min Panel Hole Dia		Max Panel Thickness		H Width across flat	
			mm	in.	mm	in.	mm	in.	mm	in.	mm	in.
Q1BBH - 4T	1/4"	Q1	67.8	2.67	23.1	0.91	11.9	15/32	6.4	0.25	15.8	5/8
Q2BBH - 6T	3/8"	Q2	75.7	2.98	26.2	1.03	15.1	19/32	6.9	0.27	19.1	3/4
Q3BBH - 8T	1/2"	Q3	90.4	3.56	30.7	1.21	19.8	25/32	6.6	0.26	23.8	15/16
Q1BBH - 6M	6mm	Q1	67.8	2.67	23.1	0.91	11.9	29/64	6.4	0.25	16.0	-
Q2BBH - 10M	10mm	Q2	75.9	2.99	26.2	1.03	16.7	21/32	6.9	0.27	22.0	-
Q3BBH - 12M	12mm	Q3	90.4	3.56	30.7	1.21	19.6	49/64	6.6	0.26	24.0	-



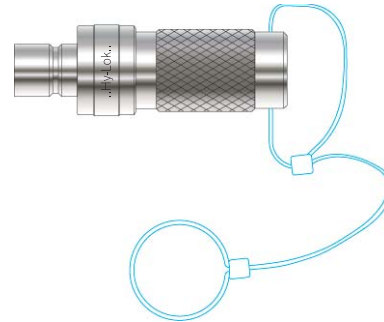
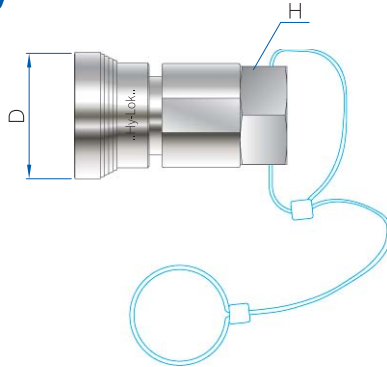
Dimensions are for reference only, subject to change.

**Insertion Depth**

Series	Depth, mm(in)			
	SESO		DESO	
	mm	in.	mm	in.
Q1	27.7	1.09	29.2	1.15
Q2	30.0	1.18	33.0	1.30
Q3	37.6	1.48	42.7	1.68

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

**Accessory**



**Stem Protectors**

Part number	Series	D		H Width across flat	
		mm	in.	mm	in.
		Q1SP	Q1	23.1	0.91
Q2SP	Q2	26.2	1.03	19.1	3/4
Q3SP	Q3	30.7	1.21	23.8	15/16

**Body Protectors**

Part number	Series
Q1BP	Q1
Q2BP	Q2
Q3BP	Q3

**Installation Instruction**

**Warning :**

System pressure must not exceed 250psig (17.2bar) at 70°F (20°C) when coupling and uncoupling the product. When uncoupling single-end shutoff quick-connectors, system pressure on stem side will be vent to atmosphere.

**To couple :**



Align stem and body.



Push the stem into the body.



Connections is complited when it "clicks"

**To uncouple :**



Pull the body sleeve toward the stem.

**Caution :**

- Do not rotate quick connectors while coupled.
- Do not insert a foreign objects into the uncoupled bodies or stems.



## Ordering Informations

**Q1**

**Series Designator**

- Q1 - 1/4"
- Q2 - 3/8"
- Q3 - 1/2"

**B**

**Component Designator**

- B - Body
- SS - SESO Stems
- DS - DESO Stems
- SP - Stem Protectors
- BP - Body Protectors

**H**

**End Connection Designator**

- H - Hy-Lok Tube Ends
- M - Male Pipe
- F - Female Pipe
- 3F - 37Flared Tube Ends
- HB - Hose Barb
- BH - Hy-Lok Bulkhead Tube Ends

**4T**

**Size Designator**

**EP**

**O-ring Material Designator**

- BU - NBR(Buna N)
- KA - Kalez
- NE - Neoprene
- EP - Ethylene Propylene

**S316**

**Body Material Designator**

- S316 - 316 Stainless Steel
- BRAS - Brass

**Tube**

Fractional Tube	O.D.(in.)	1/8	1/4	3/8	1/2
	Designator	2T	4T	6T	8T
Metric Tube	O.D.(in.)	6	8	10	12
	Designator	6M	8M	10M	12M

**Thread**

Thread	1/8" NPT	1/4" NPT	3/8" NPT	1/2" NPT
Designator	2N	4N	6N	8N
Thread	1/8" PT	1/4" PT	3/8" PT	1/2" PT
Designator	2R	4R	6R	8R
Thread	1/8" PF	1/4" PF	3/8" PF	1/2" PF
Designator	2G	4G	6G	8G

