

Quick**LOK**[®]

HAM-LET **QL** SERIES CONNECTORS



**Single handed operated, compact,
high flow rate versatile Quick Connectors**

QuickLOK

QL SERIES CONNECTORS

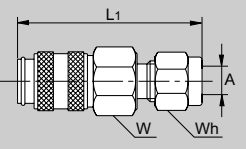
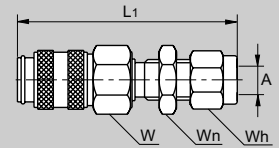
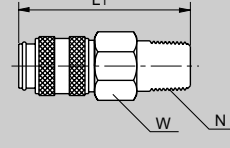
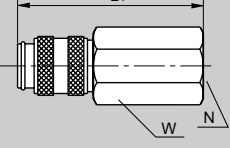
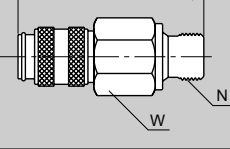
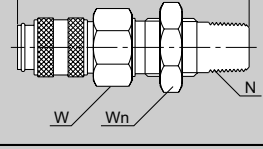
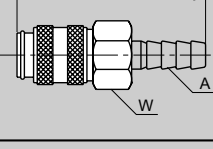
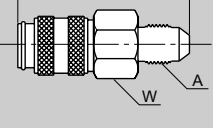


PLUGS	Series	A Tube O.D.	N Pipe Thread	Overall Length		D Minimum Opening		W Width Across Hex	Wn Width Across Hex	Wh Width Across Hex
				L Single & Double shut off	L Single & Double shut off	D Minimum Opening	D Minimum Opening			
Let-Lok & One-Lok 	21	in	in	in	mm	in	mm	in	in	in
		1/8	-	2.02	51.30	0.09	2.3	5/8	-	7/16
		1/4	-	2.13	54.05	0.19	4.8	5/8	-	9/16
		mm	in	in	mm	in	mm	mm	-	mm
6	-	2.13	54.05	0.19	4.8	16	-	14		
Let-Lok & One-Lok Bulkhead 	21	in	in	in	mm	in	mm	in	in	in
		1/4	-	2.51	63.65	0.19	4.8	5/8	5/8	9/16
		mm	in	in	mm	in	mm	mm	mm	mm
		6	-	2.51	63.65	0.19	4.8	16	16	14
Male NPT or ISO-7/1 (BSPT) 	21	in	in	in	mm	in	mm	in	in	in
		-	1/8	1.80	45.75	0.19	4.8	5/8	-	-
		-	1/4	1.98	50.25	0.20	5.0	5/8	-	-
Female NPT or ISO 228/1 Parallel (BSPP) 	21	in	in	in	mm	in	mm	in	in	in
		-	1/8	1.88	47.65	0.19	4.8	5/8	-	-
		-	1/4	2.09	53.00	0.20	5.0	3/4	-	-
Male ISO 228/1 Parallel (BSPP) 	21	in	in	in	mm	in	mm	in	in	in
		-	G1/8	1.76	44.65	0.16	4.0	5/8	-	-
		-	G1/4	1.94	49.25	0.20	5.0	3/4	-	-
Male NPT Bulkhead 	21	in	in	in	mm	in	mm	in	in / mm	in
		-	1/8	2.48	63.00	0.19	4.8	5/8	11/16	-
		-	1/4	2.63	66.85	0.20	5.0	3/4	22mm	-
Hose Connector 	21	in	in	in	mm	in	mm	in	mm	in
		1/8	-	1.82	46.25	0.08	2.0	5/8	-	-
		1/4	-	2.17	55.15	0.20	5.0	5/8	-	-
Flare 37° 	21	in	in	in	mm	in	mm	in	mm	in
		1/8	-	1.87	47.45	0.06	1.6	5/8	-	-
		1/4	-	1.97	50.05	0.17	4.4	5/8	-	-

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QL SERIES CONNECTORS



COUPLINGS		Series	A Tube O.D.	N Thread	L1 Overall Length		D Minimum Opening		W Width Across Hex	Wn Width Across Hex	Wh Width Across Hex
Let-Lok & One-Lok 	21	in	in	in	mm	in	mm	in	in	in	
		1/8	-	1.87	47.40	0.09	2.3	5/8	-	7/16	
		1/4	-	1.97	50.15	0.19	4.8	5/8	-	9/16	
		mm	in	in	mm	in	mm	mm	in	mm	
6	-	2.13	54.05	0.19	4.8	16	-	14			
Let-Lok & One-Lok Bulkhead 	21	in	in	in	mm	in	mm	in	in	in	
		1/4	-	2.35	59.75	0.19	4.8	5/8	5/8	9/16	
		mm	in	in	mm	in	mm	mm	mm	mm	
		6	-	2.35	59.75	0.19	4.8	16	16	14	
Male NPT or ISO-7/1 (BSPT) 	21	in	in	in	mm	in	mm	in	in	in	
		-	1/8	1.65	41.85	0.19	4.8	5/8	-	-	
		-	1/4	1.82	46.35	0.20	5.0	5/8	-	-	
Female NPT or ISO 228/1 Parallel (BSPP) 	21	in	in	in	mm	in	mm	in	in	in	
		-	1/8	1.72	43.75	0.19	4.8	5/8	-	-	
		-	1/4	1.93	49.15	0.25	5.0	3/4	-	-	
Male ISO 228/1 Parallel (BSPP) 	21	in	in	in	mm	in	mm	in	in	in	
		-	G1/8	1.60	40.75	1.65	42.05	5/8	-	-	
		-	G1/4	1.79	45.35	0.20	5.0	3/4	-	-	
Male NPT Bulkhead 	21	in	in	in	mm	in	mm	in	in / mm	in	
		-	1/8	2.33	59.10	0.19	4.8	5/8	11/16	-	
		-	1/4	2.48	62.95	0.20	5.0	3/4	22mm	-	
Hose Connector 	21	in	in	in	mm	in	mm	in	in	in	
		1/8	-	1.67	42.35	0.08	2.0	5/8	-	-	
		1/4	-	2.02	51.25	0.19	4.8	5/8	-	-	
Flare 37° 	21	in	in	in	mm	in	mm	in	in	in	
		1/8	-	1.71	43.55	0.06	1.60	5/8	-	-	
		1/4	-	1.82	46.15	0.17	4.4	5/8	-	-	

Quick Connectors/Technical Specifications

Description:

The series **21QL** is a double shut-off coupling in which both couplings and plugs are fitted with valves. The valves in both the coupling and the plug are opened when connected. Both valves close virtually simultaneously when disconnected, ensuring minimum leakage loss.

The coupling offers a single handed operation, extremely compact dimensions and high flow rate with a multitude of connecting possibilities e.g. with air tools, pneumatic, medical engineering, breathing air, diving equipment, measuring and control equipment, laboratory installations, chemistry, analysis and dosage engineering.

The series **21QL** is a standard quick connect coupling with single-hand operation. The coupling allows high flow-rate and small dimensions. The coupling allows a high flow rate in small design. The series allows numerous connecting possibilities options and is thus versatile, e.g. at air-pressure tools, medical engineering, laboratory installations, chemistry, measuring and control equipment, mechanical engineering etc.

Double shut-Off

Working pressure (static): AISI 316 - 0 up to 1500 psi
Brass - 0 up to 1000 psi

Working temperature: -20°C up to +100°C (depending on the seal material and medium)

5. Materials: Non Plated Brass and 316 Stainless Steel.

Components	Brass Body	Stainless Steel Body
Back body	Brass	AISI 316
Valve body	Brass	AISI 316 TI
Sleeve	Brass	AISI 316 TI
Valve	Brass	AISI 316 TI
Spring	AISI 301	AISI 316 TI
Locking Balls / Pins	AISI 420	AISI 316
Seals	Buna N	Viton
Plug	Brass	AISI 316 TI

Versions/special features (in part not for all versions, others upon request):

Seal material: Buna N, Viton, Kalrez, Ethylen-Propylen; Surface nikel plated, Chrome plated, Durnicoat

Special service: oil and grease free, silicon free; dry break version; thermoplastic-version;

Safety feature: Locking coupling system.

Test value at 20°C (depending on the version):

Flow-rate air: 310 l/min at 6 bars inlet pressure and 0.5 bar pressure drop.

Flow-rate water: 3.1 l/min at 0.5 bar pressure drop.

Connecting force: w/o pressure app. 35 N at 6 bar inlet pressure app. 60N

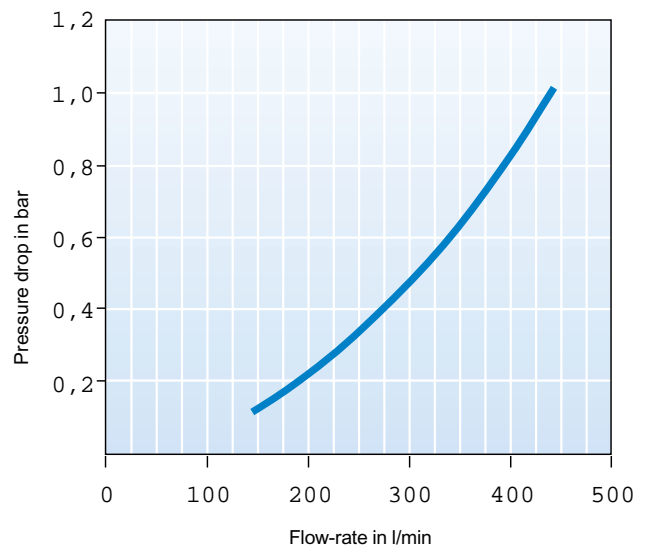
Disconnecting force: w/o pressure app 10 N at 6 bar inlet pressure app. 15 N

Safety factor: AISI 316: at least 4 times Burst-pressure: at least 6000 psi.

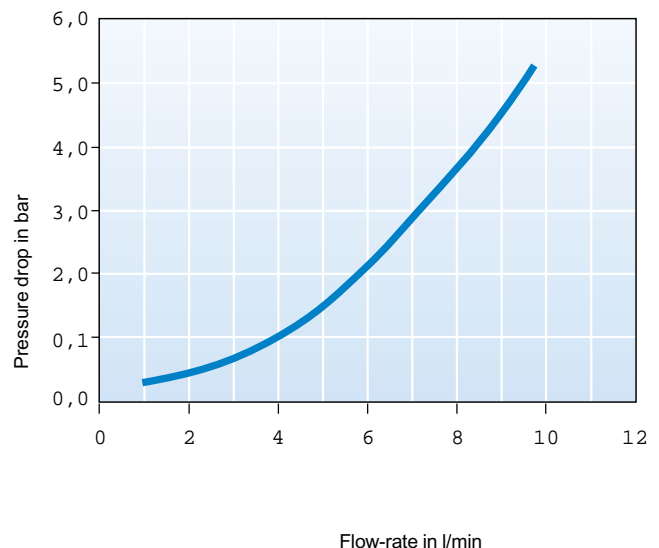
Brass: at least 4 times Burst-pressure: at least 4000 psi.

Fatigue: 5000 cycles connecting/disconnecting: tightness and function O.K. when Quick connector is used from 0 to 500 psi

Flow-chart air
6 bar inlet pressure



Flow-chart water



Single shut-Off

Working pressure (static): AISI 316 - 0 up to 1500 psi
 Brass - 0 up to 1000 psi

Working temperature: -20°C up to +100°C (depending on the seal material and medium)

5. Materials: Non Plated Brass and 316 Stainless Steel.

Material	Brass Body	Stainless Steel Body
Back body	Brass	St.St. 316
Valve body	Brass	St.St. 316 TI
Sleeve	Brass	St.St. 316 TI
Valve	Brass	St.St. 316 TI
Spring	AISI 301	AISI 316 TI
Locking Balls / Pins	AISI 420	AISI 316
Seals	Buna N	Viton
Plug	Brass	AISI 316 TI

Versions/special equipment (in part not for all versions, others upon request):

Seal material: Viton, Kalrez, Ethylen-Proylen;

Special Services: oil and grease free, silicon free; dry break version; thermolastic-version; vacuum-version;

Safety Features: Locking coupling system.

Test value at 20°C (depending on the version):

Flow-rate air: 550 l/min at 6 bars inlet pressure and 0.5 bar pressure drop.

Flow-rate water: 5.5 l/min at 0.5 bar pressure drop.

Connecting force: w/o pressure app. 35 N at 6 bar inlet pressure app. 60N

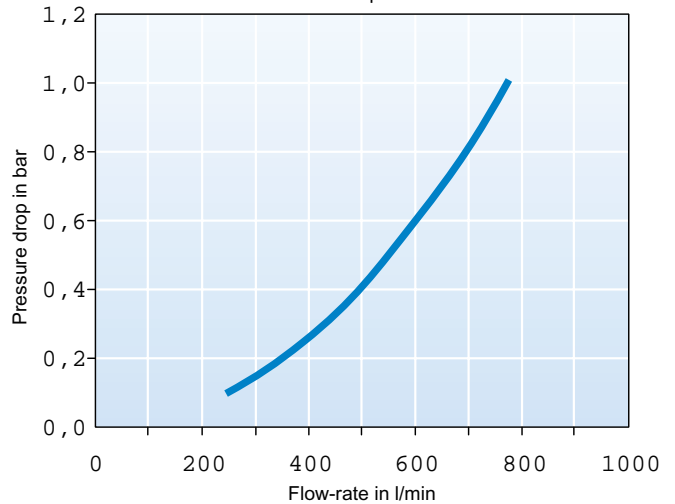
Disconnecting force: w/o pressure app 10 N at 6 bar inlet pressure app. 15 N

Safety factor: AISI 316: at least 4 times Burst-pressure: at least 6000 psi.
 Brass: at least 4 times Burst-pressure: at least 4000 psi.

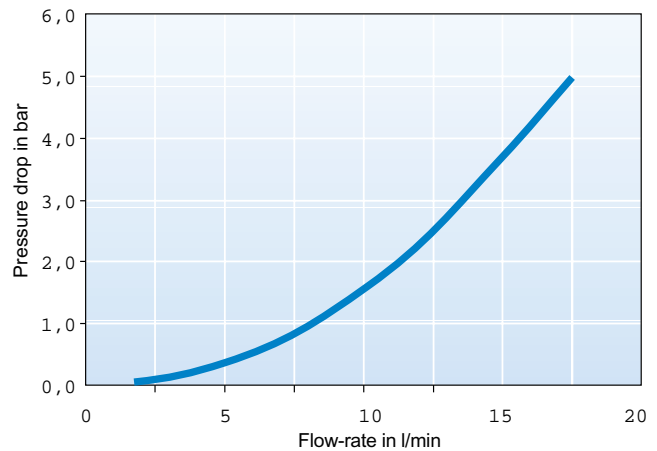
Fatigue: 5000 cycles connecting/disconnecting: tightness and function O.K. when Quick connector is used from 0 to 500 psi

Flow-chart air

6 bar inlet pressure



Flow-chart water



How to Order:*

Series	End Connection	Material	Size	Connector	Color	Relief Configuration	O-ring
21QL	L = Let-Lok (Tube) LB = Let-Lok Bulkhead NB = NPT Bulkhead MN = Male NPT FN = Female NPT MG = Male BSPP FG = Female BSPP MR = Male BSPT FR = Female BSPT H = Hose Connector HL = One-Lok** HF = Flare 37 _i	SS = 316L B = Brass	See Tables (Pages 140-141)	P = Plug C = Coupling	R = Red BL = Blue BR = Brown G = Green	S = Single shut-off D = Double shut-off	E = EPDN K = Kalrez

* Overall length of Assembled Quick-Lok - Use the following formula:
Overall length = L + L1 - 13.6

Examples: 21QL - L - SS - 1/4 -P- S - R - E - K