



Series: FL - 316 Stainless Steel

Technical Features and Options

- Interchangeability: ISO 16028 (from size 6.3 to 25) HTMA (size 10)
- Valve system: Flat face
- Mechanical connection: Locking balls
- Connection system: Pushing to connect
- Disconnection system: Pushing back the sleeve of female
- Connection with residual pressure: Not allowed
- Disconnection with residual pressure: Not allowed
- Threads available: BSP, NPT
- Threads on request: SAE (J1926-1)
- Temperature range:
Standard seals VITON : from -15°C to +180°C (from +5°F to +356°F).
NBR (Nitrile) seals: from -20°C to +100°C (from -4°F to +212°F).
EPDM (Ethylene Propylene) seals: from -40°C to +150°C (from -40°F to +302°F).
KALREZ seals: from -25°C to +300°C (from -13°F to +572°F).
The couplings with Kalrez seals for high temperature use, can be used at max. operating pressure of 5 Mpa (725 psi).

How To Use

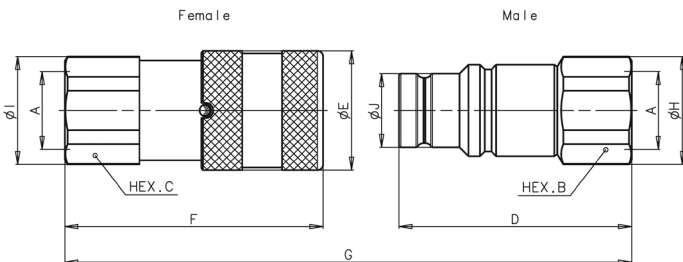
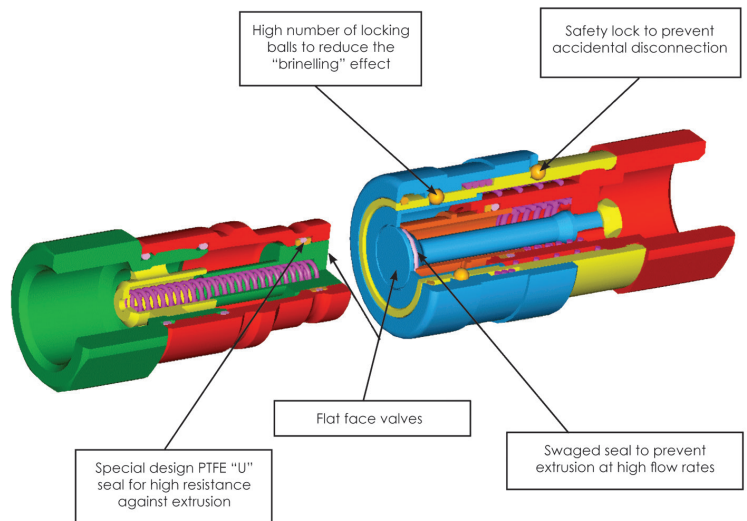
- Before connection clean the flat face surface of quick coupling to avoid inclusion of dirt into the circuit.
- To couple push the male half towards the female half or vice versa.
- Once connected, to prevent accidental disconnection, turn the external sleeve to engage lock function.
- To uncouple turn the external sleeve until the sleeve lock groove corresponds with the safety lock ball and pull back the sleeve.

Warning!

- Do not use the female coupling disconnected with impulse pressure.
- Do not couple-uncouple with flow and/or pressure in the circuit.
- Do not couple-uncouple when the temperature inside of the circuit is higher than 80°C (176°F).
- When the couplings are disconnected, it is suggested to use protection caps. The plastic caps of "FIRG-A" series are suitable for "FL" couplings. Stainless steel AISI 316 caps are available on request.

Materials

Construction material: Stainless steel AISI 316
 Springs: AISI 302
 Locking ball material: AISI 316
 Seals: Standard in VITON
 Seals on request: NBR (Nitrile), EPDM, KALREZ or others
 Anti-extrusion rings: PTFE
 Accessories on request: Caps in AISI 316



Dimensions

Description	A	unit	B	C	D	E	F	G	H	I	J	Weight	Male	Female
FL4 1/8 BSP	1/8	mm	17	19	36.3	20	40	68.4	18.5	20.5	11.6	Kg	0.037	0.074
FL7 1/4 BSP	1/4	mm	22	22	49.4	28	48.3	86.7	23.8	23.8	16.1	Kg	0.098	0.142
FL9 3/8 BSP	3/8	mm	24	27	59.9	32	64.2	108.6	26	29	19.7	Kg	0.124	0.245
FL9 1/2 BSP	1/2	mm	27	27	62.4	32	69.2	116.1	29	29	19.7	Kg	0.120	0.242
FL13 1/2 BSP	1/2	mm	32	32	70.5	38	73.8	127	33.8	33.8	24.5	Kg	0.259	0.378
FL13 3/4 BSP	3/4	mm	36	36	70.5	38	80.8	134	38.5	38.5	24.5	Kg	0.255	0.375
FL15 3/4 BSP	3/4	mm	36	36	70.5	42	80.9	133.8	38.5	38.5	27	Kg	0.282	0.492
FL17 1 BSP	1	mm	46	46	82.2	48	92.9	153.3	49.5	49.5	30	Kg	0.432	0.795
FL21 1-1/4 BSP	1-1/4	mm	55	55	90	55	106.2	173	59.8	59.8	36	Kg	0.672	1.226
FL27 1-1/2 BSP	1-1/2	mm	70	65	111	80	132.4	214.8	76	72	57	Kg	1.890	2.908
FL45 2 BSP	2	mm	75	80	123.8	100	156.6	241.5	83.5	88.5	73	Kg	2.290	5.230

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Performance

	Size	ISO Size	Max. flow suggested		Connect force		Disconnect force		Spillage*
	Inch	mm	l/min	GPM	N	lbf	N	lbf	ml
FL4	1/8	-	6	1.59	140	31.50	30	6.75	0.005
FL7	1/4	6.3	24	6.36	160	36.00	45	10.13	0.006
FL9	3/8	10.0	46	12.19	160	36.00	45	10.13	0.012
FL13	1/2	12.5	90	23.85	200	45.00	60	13.50	0.020
FL15	5/8	16.0	148	39.22	200	45.00	60	13.50	0.026
FL17	3/4	19.0	200	53.00	200	45.00	60	13.50	0.032
FL21	1	25.0	378	100.17	280	63.00	90	20.25	0.035
FL27	1-1/2	-	750	198.75	580	130.50	160	36.00	0.050
FL45	2	-	1000	265.00	490	110.25	70	15.75	0.100

* Spillage is an indicative value of the fluid loss per couple-uncouple cycle.

	Max. operating pressure						Burst pressure					
	Coupled		Male		Female		Coupled		Male		Female	
	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi
FL4	35	5075	35	5075	33	4785	140	20300	140	20300	120	17400
FL7	35	5075	35	5075	12	1740	140	20300	120	17400	48	6960
FL9	35	5075	35	5075	15	2175	140	20300	120	17400	60	8700
FL13	35	5075	35	5075	15	2175	120	17400	110	15950	60	8700
FL15	35	5075	30	4350	12	1740	120	17400	100	14500	48	6960
FL17	33	4785	28	4060	12	1740	100	14500	80	11600	48	6960
FL21	28	4060	28	4060	12	1740	90	13050	80	11600	48	6960
FL27	23	3335	23	3335	8	1160	80	11600	70	10150	32	4640
FL45	15	2175	15	2175	7	1015	60	8700	60	8700	28	4060

Article no.	Description
BSP THREAD	
802400122	F. FL4 1/8 BSP
802400123	M. FL4 1/8 BSP
802400100	F. FL7 1/4 BSP
802400101	M. FL7 1/4 BSP
802400102	F. FL9 3/8 BSP
802400103	M. FL9 3/8 BSP
802400104	F. FL9 1/2 BSP
802400105	M. FL9 1/2 BSP
802400106	F. FL13 1/2 BSP
802400107	M. FL13 1/2 BSP
802400108	F. FL13 3/4 BSP
802400109	M. FL13 3/4 BSP
802400110	F. FL15 3/4 BSP
802400111	M. FL15 3/4 BSP
802400112	F. FL17 1' BSP
802400113	M. FL17 1' BSP
802400114	F. FL21 1-1/4 BSP
802400115	M. FL21 1-1/4 BSP
802400116	F. FL27 1-1/2 BSP
802400117	M. FL27 1-1/2 BSP
802400118	F. FL45 2' BSP
802400119	M. FL45 2' BSP

Article no.	Description
NPT THREAD	
802401118	F. FL4 1/8 NPT
802401119	M. FL4 1/8 NPT
802401100	F. FL7 1/4 NPT
802401101	M. FL7 1/4 NPT
802401102	F. FL9 3/8 NPT
802401103	M. FL9 3/8 NPT
802401104	F. FL9 1/2 NPT
802401105	M. FL9 1/2 NPT
802401106	F. FL13 1/2 NPT
802401107	M. FL13 1/2 NPT
802401108	F. FL13 3/4 NPT
802401109	M. FL13 3/4 NPT
802401110	F. FL15 3/4 NPT
802401111	M. FL15 3/4 NPT
802401112	F. FL17 1' NPT
802401113	M. FL17 1' NPT
802401114	F. FL21 1-1/4 NPT
802401115	M. FL21 1-1/4 NPT
802401116	F. FL27 1-1/2 NPT
802401117	M. FL27 1-1/2 NPT
802401120	F. FL45 2' NPT
802401121	M. FL45 2' NPT

