



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

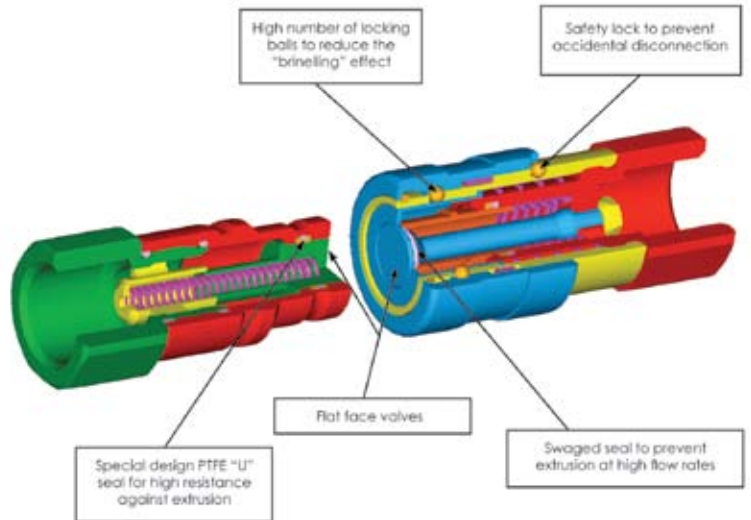
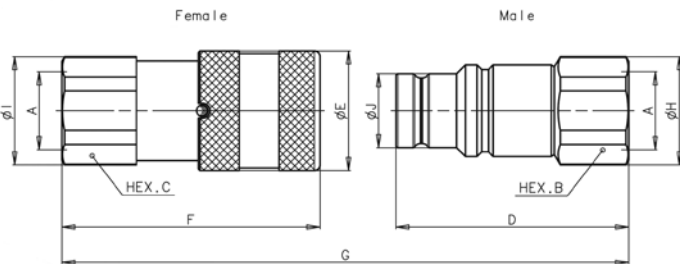
- Before connection clean the flat face surface of quick coupling to avoid inclusion of dirt into the circuit.
- To couple push the male half towards the female half or vice versa.
- Once connected, to prevent accidental disconnection, turn the external sleeve to engage lock function.
- To uncouple turn 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 | Price £ | Price € |
|-------------------|-------------------|-----------|-----------|
| BSP THREAD | | | |
| 802400122 | F. FL4 1/8 BSP | £286.40 | €300.70 |
| 802400123 | M. FL4 1/8 BSP | £198.90 | €208.80 |
| 802400100 | F. FL7 1/4 BSP | £164.90 | €173.10 |
| 802400101 | M. FL7 1/4 BSP | £112.00 | €117.60 |
| 802400102 | F. FL9 3/8 BSP | £199.90 | €209.90 |
| 802400103 | M. FL9 3/8 BSP | £126.00 | €132.30 |
| 802400104 | F. FL9 1/2 BSP | £202.00 | €212.10 |
| 802400105 | M. FL9 1/2 BSP | £112.00 | €117.60 |
| 802400106 | F. FL13 1/2 BSP | £201.10 | €211.20 |
| 802400107 | M. FL13 1/2 BSP | £122.50 | €128.60 |
| 802400108 | F. FL13 3/4 BSP | £201.10 | €211.20 |
| 802400109 | M. FL13 3/4 BSP | £122.50 | €128.60 |
| 802400110 | F. FL15 3/4 BSP | £260.60 | €273.60 |
| 802400111 | M. FL15 3/4 BSP | £148.70 | €156.20 |
| 802400112 | F. FL17 1' BSP | £342.90 | €360.00 |
| 802400113 | M. FL17 1' BSP | £153.10 | €160.80 |
| 802400114 | F. FL21 1-1/4 BSP | £544.70 | €571.90 |
| 802400115 | M. FL21 1-1/4 BSP | £262.90 | €276.00 |
| 802400116 | F. FL27 1-1/2 BSP | £954.60 | €1,002.30 |
| 802400117 | M. FL27 1-1/2 BSP | £556.90 | €584.70 |
| 802400118 | F. FL45 2' BSP | £3,040.00 | €3,192.00 |
| 802400119 | M. FL45 2' BSP | £2,240.00 | €2,352.00 |

| Article no. | Description | Price £ | Price € |
|-------------------|-------------------|-----------|-----------|
| NPT THREAD | | | |
| 802401118 | F. FL4 1/8 NPT | £294.40 | €309.10 |
| 802401119 | M. FL4 1/8 NPT | £206.80 | €217.20 |
| 802401100 | F. FL7 1/4 NPT | £173.20 | €181.80 |
| 802401101 | M. FL7 1/4 NPT | £117.60 | €123.50 |
| 802401102 | F. FL9 3/8 NPT | £210.00 | €220.50 |
| 802401103 | M. FL9 3/8 NPT | £132.30 | €138.90 |
| 802401104 | F. FL9 1/2 NPT | £212.00 | €222.60 |
| 802401105 | M. FL9 1/2 NPT | £134.50 | €141.20 |
| 802401106 | F. FL13 1/2 NPT | £241.40 | €253.50 |
| 802401107 | M. FL13 1/2 NPT | £146.90 | €154.30 |
| 802401108 | F. FL13 3/4 NPT | £267.60 | €280.90 |
| 802401109 | M. FL13 3/4 NPT | £160.60 | €168.60 |
| 802401110 | F. FL15 3/4 NPT | £312.80 | €328.40 |
| 802401111 | M. FL15 3/4 NPT | £178.50 | €187.40 |
| 802401112 | F. FL17 1' NPT | £411.40 | €432.00 |
| 802401113 | M. FL17 1' NPT | £183.70 | €192.90 |
| 802401114 | F. FL21 1-1/4 NPT | £571.90 | €600.50 |
| 802401115 | M. FL21 1-1/4 NPT | £276.00 | €289.80 |
| 802401116 | F. FL27 1-1/2 NPT | £994.40 | €1,044.10 |
| 802401117 | M. FL27 1-1/2 NPT | £676.20 | €710.00 |
| 802401120 | F. FL45 2' NPT | £4,057.10 | €4,260.00 |
| 802401121 | M. FL45 2' NPT | £2,863.80 | €3,007.00 |



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