

FTQ Series Straight Mating Connector

Description

- Straight mating with locking, blind mating
- Vibration and shock resistance, bump resistance
- Applicable to high current transmission under the severe condition
- Termination : solder
- Plug and receptacle loaded with either pin or socket
- Dust and rain proof, anti-corrosion
- Enterprise standard: Q/21EJ927



Main technical characteristic

Mechanical:

- Shell: stainless steel
- Contact: copper alloy, gold plating
- Vibration: frequency 10~2000Hz
Acceleration: 196m/s²
- Shock: acceleration 980 m/s²
- Constant acceleration: 980 m/s²
- Endurance: 500 cycles

Environmental:

- Operating temperature: -55~+200℃
- Relative humidity: 95% at 40℃
- Operating altitude: 30000 m

Electrical:

—Contact resistance and rated current:

Contact size	Contact dia. (mm)	Contact resistance (mΩ)	Rated current (A)
16	Φ1.59	≤5	13
12	Φ2.39	≤2.5	23
10	Φ3.18	≤1.5	33
8	Φ3.61	≤1	46
6	Φ4.52	≤0.8	60
4	Φ5.72	≤0.5	90
-	Φ7.5	≤0.4	100
0	Φ9.07	≤0.3	150
-	Φ10	≤0.3	200
-	Φ12	≤0.2	250

—Rated voltage, withstanding voltage and insulation resistance:

Operating condition	Rated voltage (V)	Withstanding voltage (V)	Insulation resistance (MΩ)
Normal	500	2300	≥5000
Damp heat	500	750	≥100
Altitude	250	300	≥20

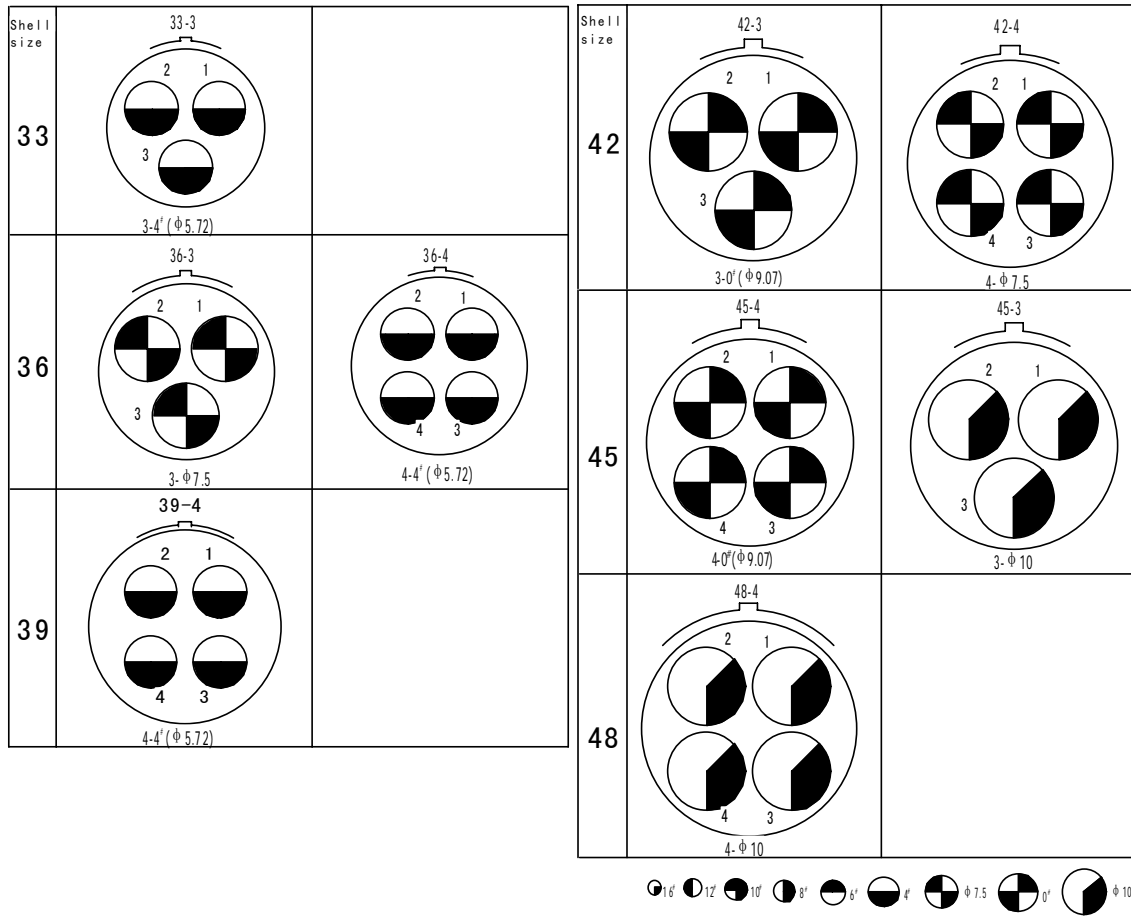
Ordering information

Basic series	FTQ	45	T	4	K ₁	P ₄₀	...
	FTQ- straight mating circular connector						
Shell size	18-22-24-27-30-33-36-39-45-48						
Shell type	T-Plug F-square flange receptacle						
Insert arrangement	See the insert arrangement drawing						
Contact style	Z ₁ - pin, gold plating K ₁ - socket, gold plating						
Notes	D ₄₀ short shell, no thread termination, stainless steel passive (only for receptacle) P ₄₀ stainless steel passive, thread termination, with accessory						
Polarization (5 keys)	Blank—N, (W) —W, (X) —X, (Y) —Y, (Z) —Z						

Insert arrangement (Mating face of pin inserts)

Shell size 18	18-4 4-12 [#] (φ 2.39)	18-7 7-16 [#] (φ 1.59)		
	22-1 1-φ 7.5	22-3 3-10 [#] (φ 3.18)	22-7 7-12 [#] (φ 2.39)	
24	24-1 1-0 [#] (φ 9.07)	24-2 2-6 [#] (φ 4.52)	24-3 3-8 [#] (φ 3.61)	24-4 4-10 [#] (φ 3.18)
	27-1 1-φ 10	27-3 3-6 [#] (φ 4.52)		
30	30-4 4-6 [#] (φ 4.52)	30-4-1 2-φ 7.5 2-10 [#] (φ 3.18)		



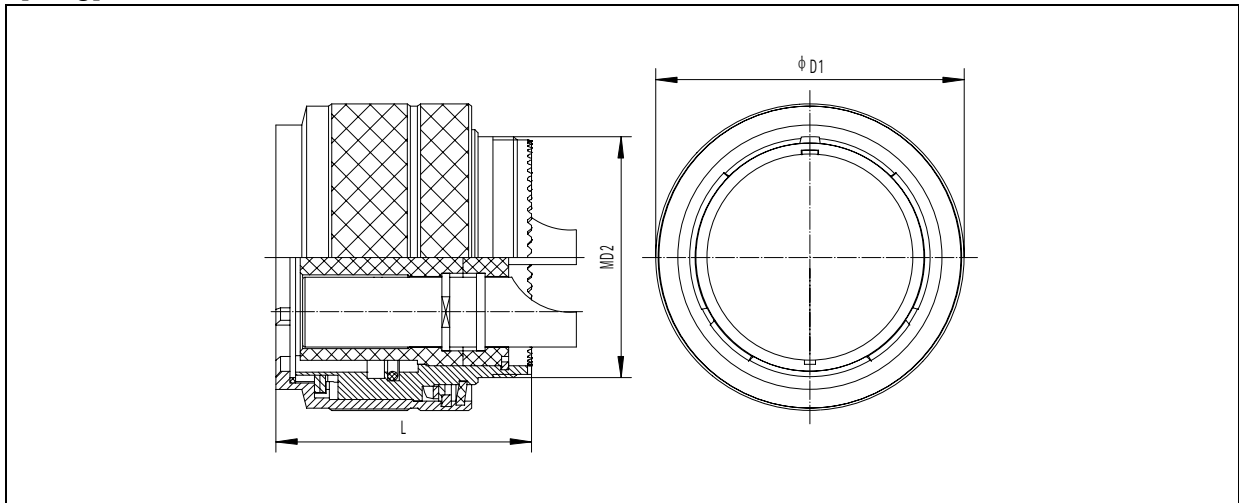


Dimension of soldered contacts (mm)

Contact size	Contact diameter	Inner diameter of solder cup	Outer diameter of solder cup
16	Φ1.59	Φ1.8	Φ2.4
12	Φ2.39	Φ2.2	Φ3.2
10	Φ3.18	Φ3.5	Φ4.4
8	Φ3.61	Φ4.8	Φ5.7
6	Φ4.52	Φ5.8	Φ6.7
4	Φ5.72	Φ7.2	Φ9.2
—	Φ7.5	Φ8	Φ10 (Φ9.3)
0	Φ9.07	Φ10	Φ12
—	Φ10	Φ11	Φ13
—	Φ12	Φ13	Φ15

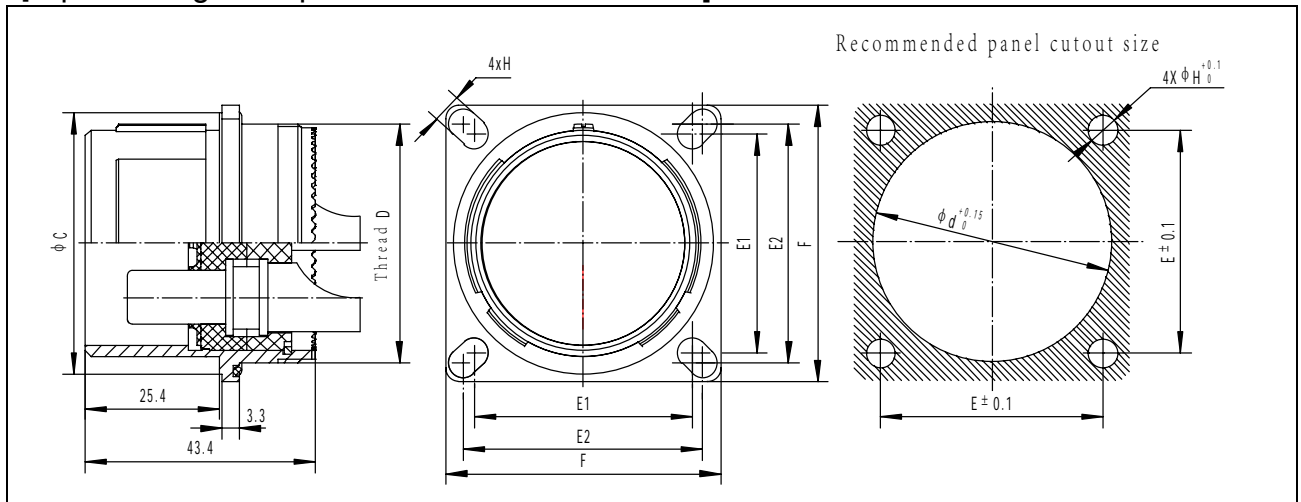
Outline dimensions

[Plug]

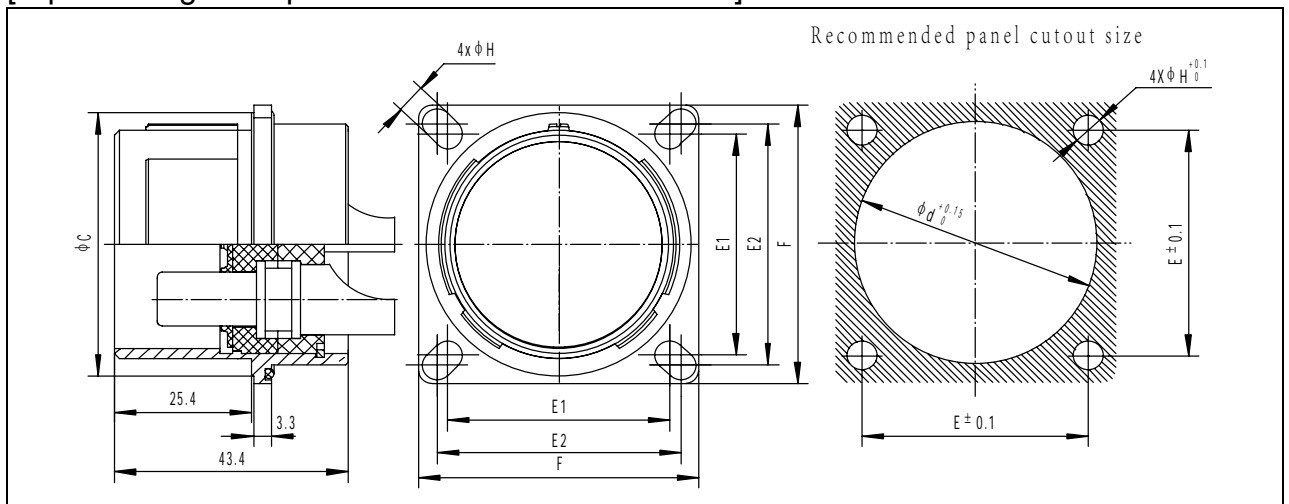


Shell size	L	D1	Thread D2
18	47.8	30.8	M18×1
22	47.8	34	M22×1
24	47.8	37.5	M24×1
27	47.8	40	M27×1
30	47.8	43.2	M30×1
33	47.8	46.5	M33×1
36	47.8	49.7	M36×1
39	47.8	53	M39×1
42	47.8	55	M42×1
45	47.8	57.4	M45×1
48	47.8	62.5	M48×1

[Square flange receptacle (thread on the rear)]



[Square flange receptacle (no thread on the rear)]



Shell size	C Max.	Thread D	E	E1	E2	F	H	d
18	22.5	M18×1	21.4	20.8	22	27	3.2	18.2
22	26.5	M22×1	24.5	23	26	31	3.2	22.2
24	30	M24×1	27	26	28	34	3.2	24.2
27	32.8	M27×1	29.5	28	31	38	3.2	27.2
30	36	M30×1	32	31	33	39	3.2	30.2
33	39	M33×1	34.5	33	36	42	3.2	33.2
36	41.7	M36×1	37.5	36	39	45	3.2	36.2
39	45	M39×1	40	39	41	48	3.2	39.2
42	46.2	M42×1	42	41	43	53	5.5	42.2
45	49.2	M45×1	42	42	—	52	5.5	45.2
48	55.3	M48×1	48	48	—	59.6	5.5	48.2

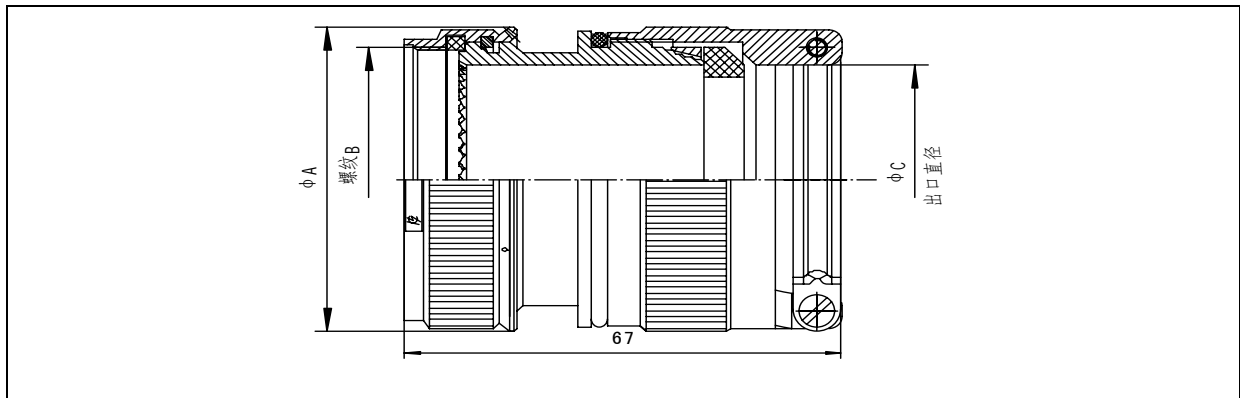
FTQ Series Cable Clamp

Features

1. Tensile strength, vibration and shock resistance
2. Hermetic, rain and dust proof

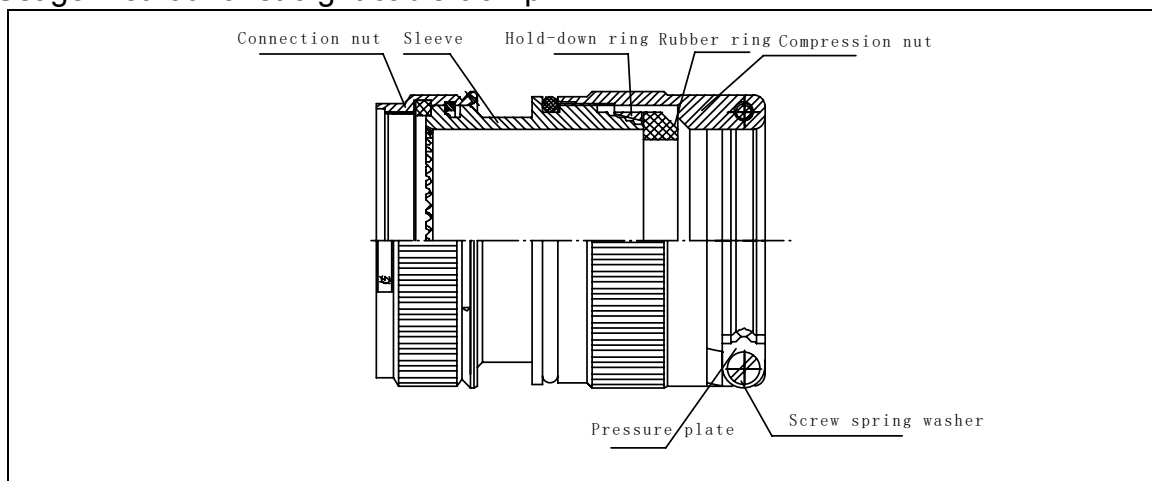
Outline dimensions

FTQ-FS



P/N	A	Thread B	C
FTQ18FS	25.1	M18×1	9.5~12
FTQ22FS	29.1	M22×1	13.5~16
FTQ24FS	31.1	M24×1	15.5~18
FTQ27FS	34.1	M27×1	18.5~21
FTQ30FS	37.1	M30×1	21.5~24
FTQ33FS	40.1	M33×1	24.5~27
FTQ36FS	43.1	M36×1	27.5~30
FTQ39FS	46.1	M39×1	30.5~33
FTQ42FS	49.1	M42×1	33.5~36
FTQ45FS	52.1	M45×1	36.5~39
FTQ48FS	55.1	M48×1	39.5~42

Usage method for straight cable clamp



[Procedure]

- 1、 The following parts are installed on the cable:1 locking nut; 2 rubber ring; 3 locking ring; 4 sleeve and coupling nut
- 2、 Strip the insulation to the length of 20~30mm
- 3、 Solder the contacts of plug and receptacle
- 4、 Tighten the sleeve and coupling nut on the plug or receptacle. Before tightening, the red color code of the back shell is aligned with that of the plug or receptacle to be against the teeth.
- 5、 Push the locking ring and rubber ring to the specified position.
- 6、 Tighten the locking screw cap.
- 7、 The laminated plate, the bolt and spring washer are installed on the locking screw cap. Tighten the bolt and clamp the cable.
- 8、 Complete the installation