

FTP Series Marine Anti-corrosion Connector

Description

- Quick bayonet coupling
- Termination: soldered
- Five key orientation to blindly mate and avoid mis-mating
- High reliable hyperboloid wire spring socket make connector soft insertion and separation and small contact resistance
- Plug and receptacle loaded with either pin or socket
- Rain proof
- Enterprise standard: Q/21EJ531



Main technical characteristic

[Mechanical]

- Shell: stainless steel passive, copper alloy satin nickel plating or aluminum alloy electroless nickel plating
- Insulator: thermosetting material
- Grommet and sealing ring: silicon rubber
- Contact: copper alloy, gold plating
- Vibration: frequency 10~2000Hz, acceleration: 196m/s²
- Shock: acceleration 980 m/s²
- Constant acceleration: 980 m/s²
- Endurance: 1000 cycles

[Electrical]

—Contact resistance and rated current

Contact size (mm)	Contact resistance (mΩ)	Rated current (A)	Inner dia. of solder cup (mm)
φ0.635	25	1	φ0.8
φ1.0	5	5	φ1.3
φ1.5	2.5	10	φ1.8
φ2	1.25	20	φ2.5
φ3.0	0.75	40	φ3.4
φ3.5	0.7	50	φ4

—Rated voltage, withstanding voltage and insulation resistance:

Operating condition	Rated voltage (V)	Withstanding voltage (V)	Insulation resistance (MΩ)
Normal	500	1500	≥5000
Heat & damp	500	1125	≥100
Altitude (1Kpa)	250	300	-

—EMI shielding: the minimum attenuation should be 45dB at 100MHz~1GHz

[Environmental]

—Operating environment: -55°C~+200°C

—Relative humidity: 95% at 60°C

—Salt spray: stainless steel-1000h; copper alloy-500h; aluminum alloy-48 h

—Fungus and dust resistance

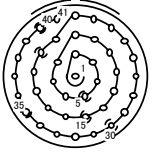
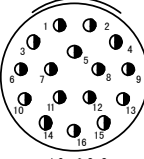
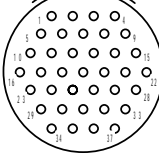
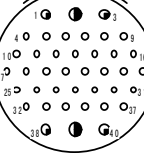
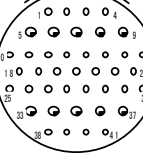
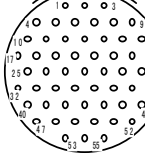
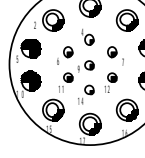
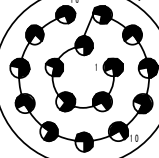
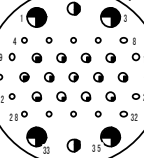
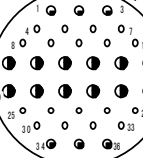
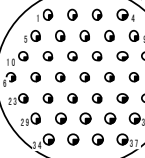
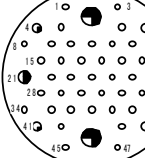
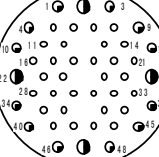
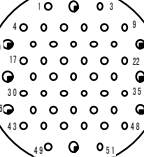
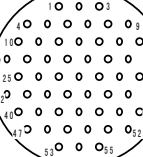
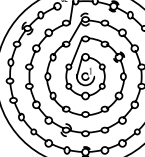
Ordering information

[Plug]

Basic series	FTP	16	T	3	K₁	P	40	
Shell size (9 sizes)								
16-18-20-22-24-27-30-33-36-39								
Shell type								
T - plug								
Contact number	See the insert arrangement							
Contact style								
Z ₁ - pin, gold plating		K ₁ - socket, gold plating						
Shell structure								
P - thread termination, with accessory								
Material and plating								
1 - aluminum alloy, electroless nickel plating								
11 - copper alloy, electroless nickel plating								
12 - copper alloy, satin nickel plating								
40 - stainless steel, passive								
Polarization (5 keys)								
Blank—N, (W) —W, (X) —X, (Y) —Y, (Z) —Z								

[Receptacle]

Basic series	FTP	16	F	3	Z₁	D	40	(W)
Shell size (9 sizes)								
16-18-20-22-24-27-30-33-36-39								
Shell type								
F- square flange receptacle								
N-jam nut sealed receptacle								
Contact number	See the insert arrangement							
Contact style								
Z ₁ - pin, gold plating		K ₁ - socket, gold plating						
Shell structure								
D - no thread termination, without accessory								
P - thread termination, with accessory								

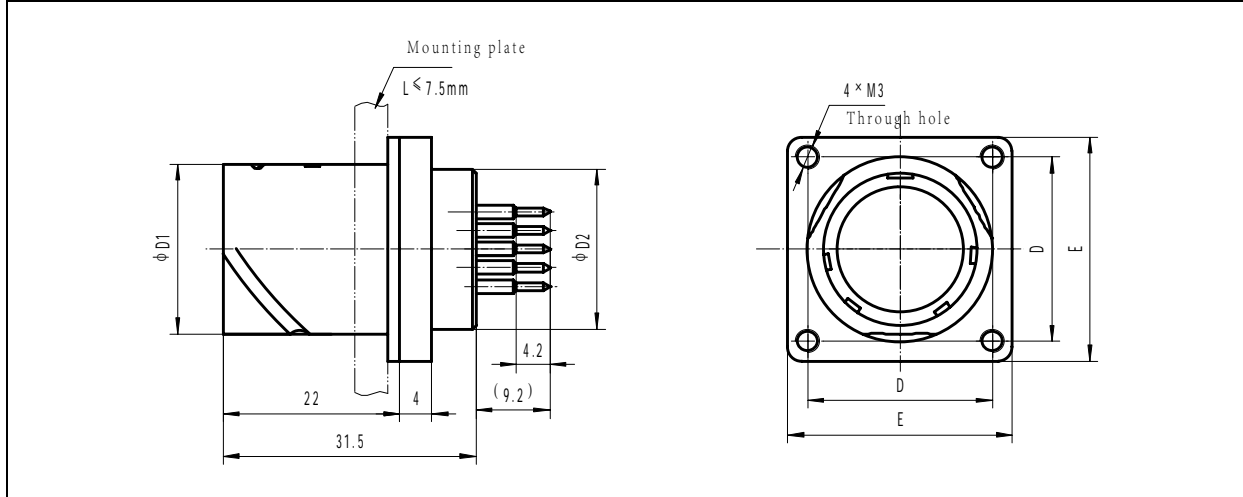
33	<p>33-41</p>  <p>41-Φ1.0</p>	<p>33-16</p>  <p>16-Φ2.0</p>			
36	<p>36-37</p>  <p>37-Φ1.0</p>	<p>36-40</p>  <p>34-Φ1.0, 4-Φ1.5 2-Φ2.0</p>	<p>36-41</p>  <p>31-Φ1.0, 10-Φ1.5</p>	<p>36-55</p>  <p>55-Φ1.0</p>	<p>36-17</p>  <p>7-Φ1.5, 4-Φ3.0 6-Φ3.5</p>
39	<p>39-16</p>  <p>16-Φ3.0</p>	<p>39-35</p>  <p>16-Φ1.0, 13-Φ1.5 2-Φ2.0, 4-Φ3.0</p>	<p>39-36</p>  <p>18-Φ1.0, 6-Φ1.5 12-Φ2.0</p>	<p>39-37</p>  <p>37-Φ1.5</p>	<p>39-47</p>  <p>39-Φ1.0, 4-Φ1.5 2-Φ2.0, 2-Φ3.0</p>
	<p>39-48</p>  <p>32-Φ1.0, 12-Φ1.5 4-Φ2.0</p>	<p>39-51</p>  <p>43-Φ1.0, 8-Φ1.5</p>	<p>39-55</p>  <p>55-Φ1.0</p>	<p>39-62</p>  <p>62-Φ1.0</p>	

 Φ 1.0 Contact
  Φ 1.5 Contact
  Φ 2.0 Contact
  Φ 3.0 Contact
  Φ 3.5 Contact

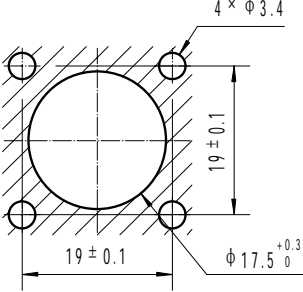
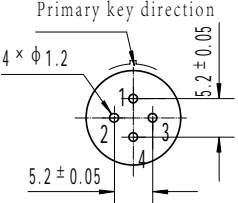
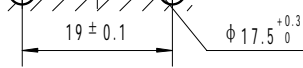
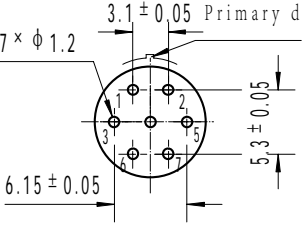

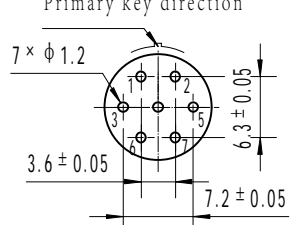
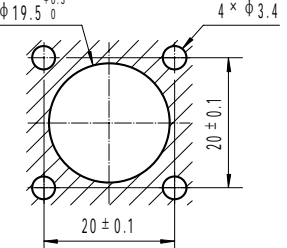
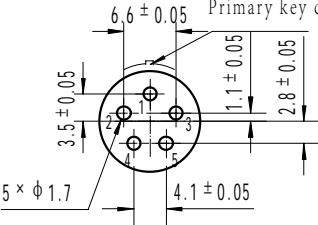

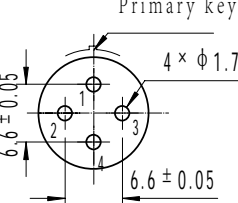
Ordering information

Basic series	FTPB	20	F	10	K₁	D	40	W	-02
Shell size (10 sizes)									
16-18-20-22-24-27-30-33-36-39									
Type									
T - plug F- square flange receptacle N- jam nut receptacle									
Contact number marked with figures									
Contact style									
Z ₁ - pin, gold plating K ₁ - socket, gold plating									
Shell structure									
D –no thread termination									
Material and plating									
1 - aluminum alloy, electroless nickel plating									
11 –copper alloy, electroless nickel plating									
40 - stainless steel, passive									
Polarization (5 keys)									
Blank—N, (W) —W, (X) —X, (Y) —Y, (Z) —Z									
Modification identification									

Outline dimensions



Shell size	D1	D2	D	E
16	17.2	16	19	25
18	19.2	18	20	27
20	21.2	20.5	21.5	28
24	25.2	24	24.6	32
27	28.2	27	27	34.5
30	31.2	30	29.4	36
33	34.2	33	31	39

Shell size and contacts	Recommended panel cut-out dimensions	Recommended PCB cut-out dimensions (Mating face of pin inserts)
16-4		
16-7		
18-7		
18-5		
18-4		

20-7		<p>Primary key direction</p> <p>$7 \times \phi 1.7^{+0.1}_0$</p> <p>$7.3 \pm 0.05$</p> <p>$8.5 \pm 0.05$</p> <p>$4.2 \pm 0.05$</p>
20-10	<p>$4 \times \phi 3.4$</p> <p>21.5 ± 0.1</p> <p>$\phi 21.5^{+0.3}_0$</p>	<p>Primary direction</p> <p>$10 \times \phi 1.2^{+0.1}_0$</p> <p>$9 \pm 0.05$</p> <p>$3.3 \pm 0.05$</p> <p>$7 \pm 0.05$</p>
20-11	<p>21.5 ± 0.1</p> <p>$\phi 21.5^{+0.3}_0$</p>	<p>Primary key direction</p> <p>$11 \times \phi 1.2$</p> <p>$\phi 9.75 \pm 0.05$</p> <p>9孔EQS</p> <p>3.25 ± 0.05</p>
20-10-1		<p>Primary key direction</p> <p>$6 \times \phi 1.2$</p> <p>$4 \times \phi 1.7$</p> <p>9.8 ± 0.05</p> <p>6.3 ± 0.05</p> <p>9.7 ± 0.05</p> <p>3.25 ± 0.05</p> <p>6.5 ± 0.05</p>
24-14		<p>Primary key direction</p> <p>$14 \times \phi 1.2$</p> <p>12 ± 0.05</p> <p>11 ± 0.05</p> <p>4 ± 0.05</p> <p>8 ± 0.05</p> <p>4 ± 0.05</p>

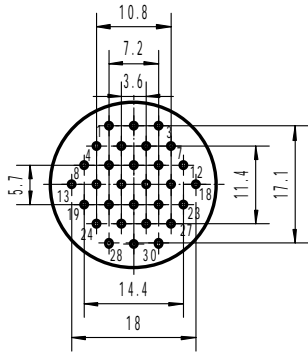
24-19		
24-8		
27-26		
27-14		
27-19		

<p>30-15</p>		
<p>33-30</p>		
<p>33-41</p>		

FTPB dimensions

<p>30-12</p>	<p>30-22</p>	<p>30-24</p>
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30-30



30-12-1

