

FQ 型系列圆形电连接器

FQ series connector FQ 系列连接器



FQ 防水型系列圆形电连接器符合电子工业部元器件工业管理局批准DZ4Q/RE008-84制造，产品结构先进，可靠性高，体积小，重量轻，卡口快速连接，防水性能优良，操作使用简便。结构先进，电连接性能优良，价格低廉，性价比高。插针、插孔引线采用焊接式，产品被广泛用于各种电子仪器、电子、电气设备间有防水要求的电连接中。产品针、孔可以根据您的要求互换。

FQ series of waterproof circular electric connectors accord with the standard DZ4Q/RE008-84, which is certificated by Ministry of the electronics industry administrative bureau office. The product owns advanced structure, high dependability, small volume, light weight, excellent waterproof, and the bayonets are connected quickly. The pins and the down-lead of jacks are made by welding. As these characteristics, it's easy to operate and it make a low price which is more reasonable. O fall these these characteristics it was widely used in electric connection among various kinds of electric equipments, and the pin and jack would changed as your requirement.

(1) 使用条件

工作温度: $-55^{\circ}\text{C} \sim +85^{\circ}\text{C}$
 相对湿度: 温度为 40°C 达 $93 \pm 3\%$
 振动: 频率 $10 \sim 200\text{Hz}$, 加速度 150m/s^2
 碰撞: 加速度 490m/s^2
 恒加速度振动: 加速度达 245m/s^2

大气压力: 达 4.4KPa
 机械寿命: 500次
 连接器应在1米深的水中受30分钟的试验而连接器内部不进水

Service environmental condition

Working temperature: $-55^{\circ}\text{C} \sim +85^{\circ}\text{C}$
 Relative humidity: It can reach $93 \pm 3\%$ at 40°C centigrade
 Vibration Frequency $10 \sim 200\text{Hz}$, acceleration 150m/s^2
 Collision Acceleration 490m/s^2
 Permanent acceleration vibration: The acceleration reaches 245m/s^2

Atmospheric pressure Reach 4.4KPa
 Mechanical life-span: 500 times
 The connector should be dipped one meter in water for 30 minutes test without the water drop in

(2) 工作电压、电流、电阻 Main technical parameters

接触件直径 Diameter of contact (mm)	接触件电阻 Contact resistance (Ω)	工作电流 Working current (A)	电压 Voltage ($\leq 400\text{Hz}$)	
			接点中心距 (mm) Contact centre distance	
			≥ 3.5	2.8
0.8	0.01	2	500	400
1	0.05	3	500	400
1.5	0.0025	10	500	400
2.5	0.001	25	500	400

注: 根据连接器接触对数量, 其每一接触对的额定电流规定如下:

接触对数目: 1-20, 为额定工作电流的100%
 接触对数目: 21-32, 为额定工作电流的80%
 接触对数目: 33-55, 为额定工作电流的70%
 Attention: according to connectors of the contact amount, the rated current of each contact are following:
 The amount of contact 1-20, the rated current is 100%
 The amount of contact 21-32, the rated current is 80%
 The amount of contact 33-55, the rated current is 70%

(3) 试验电压 (50HZ) Experimental voltage (50HZ)

接触对中心距 Contact centre distance (mm)	正常条件下 Normal (V)	潮湿试验后 Moisture test (V)
≥ 3.5	1500	1000
2.8	1200	800

(4) 低气压条件下的试验电压 (50HZ) Experimental voltage under low pressure

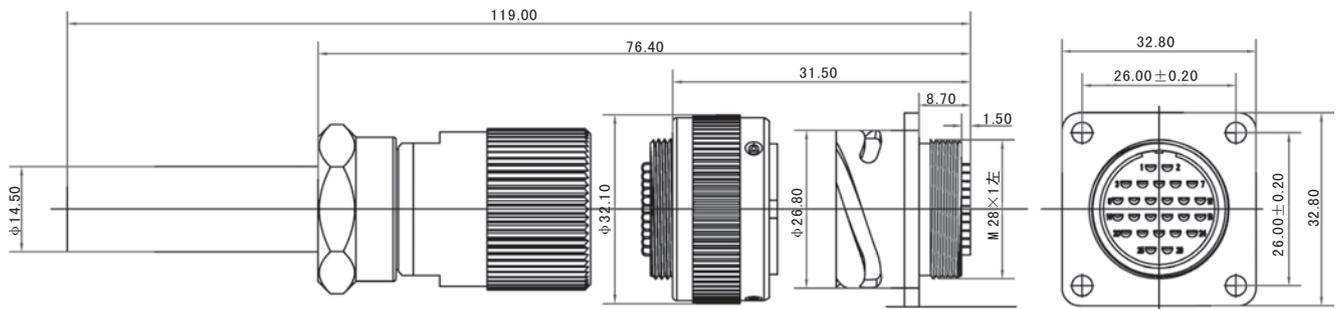
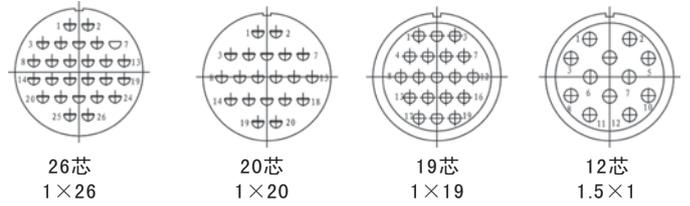
大气压力 Atmospheric pressure (kPa)	接触对中心距 Contact centre distance (mm)	
	≥ 3.5	≥ 2.8
46.7	1000V	730V
8.5	500V	400V
4.4	400V	300V

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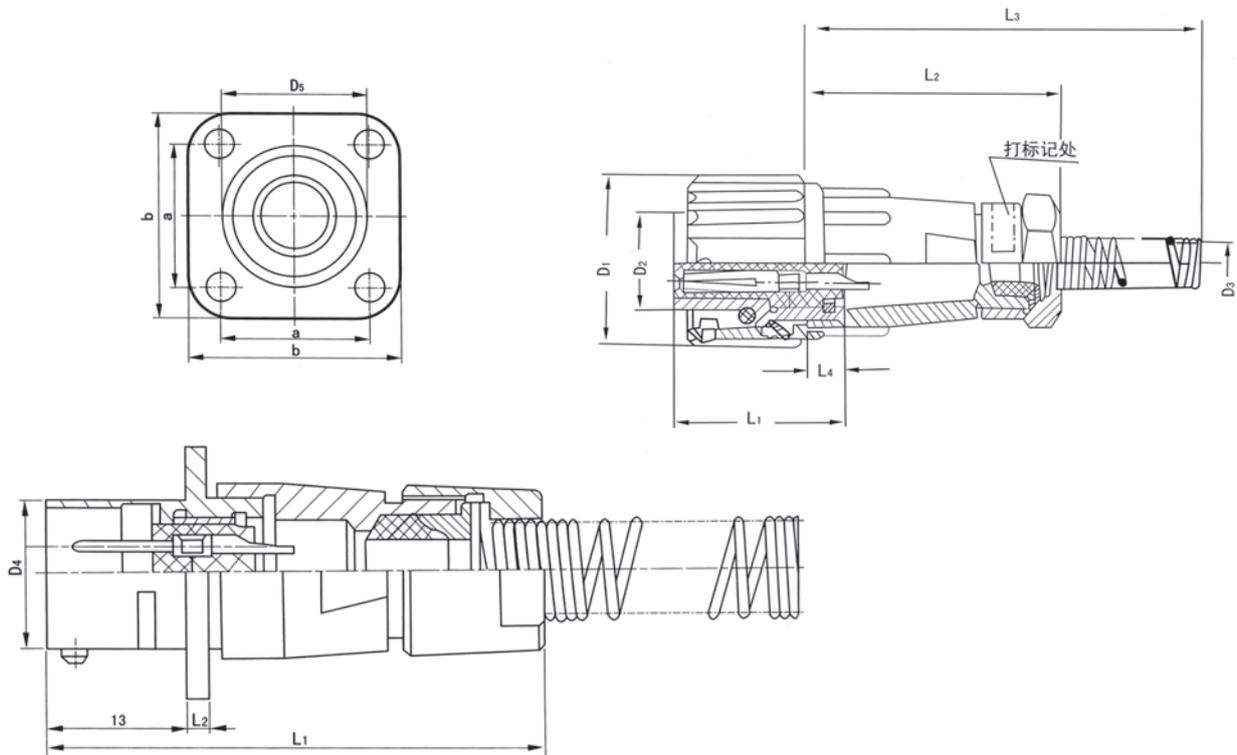
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(5) 绝缘电阻 Insulation resistance

正常条件下 Normal(V)	高温条件下 High temperature	潮湿试验后 Moisture test(V)
≥500M Ω	≥500M Ω	≥100M Ω



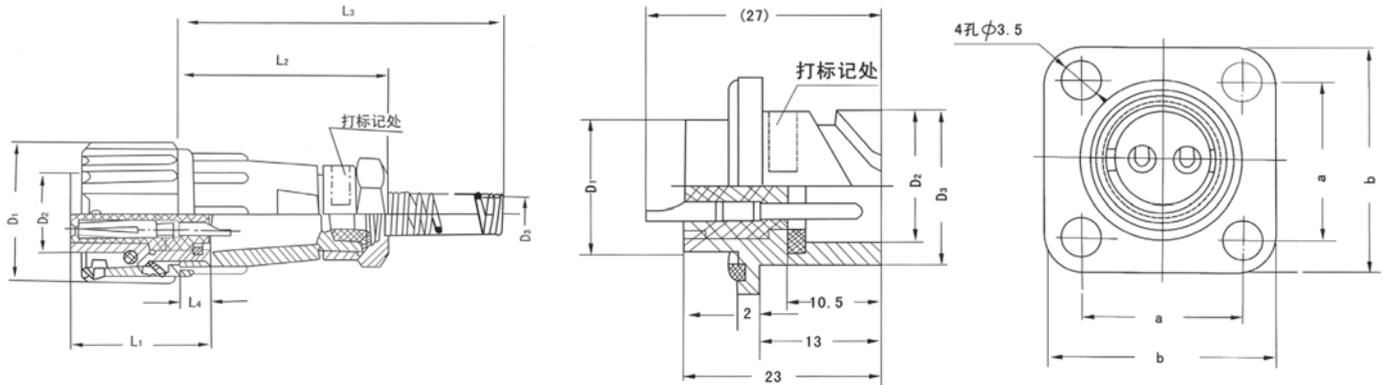
外型及安装尺寸 Shell setting dimension



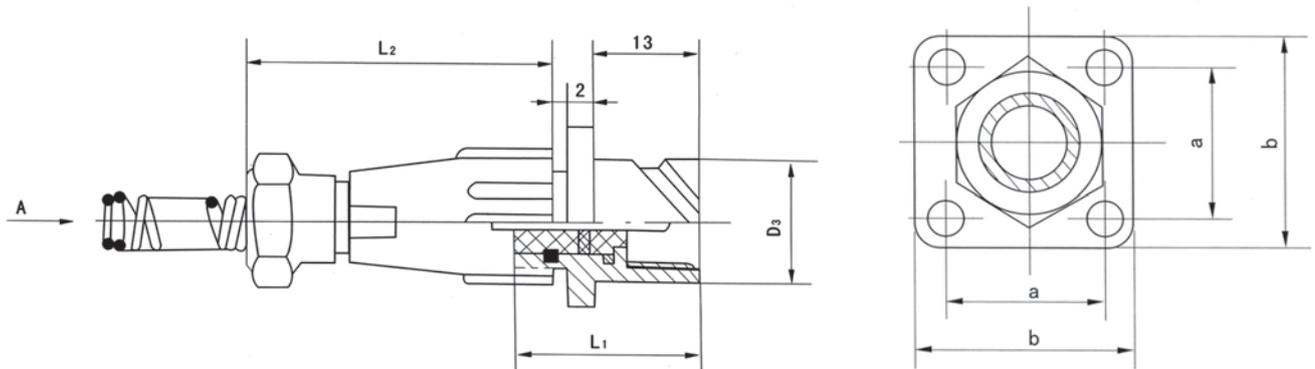
插头类型 Plug type	外型及结构尺寸 Exterior and structure dimension				电缆直径 Diameter of cable	外型及结构尺寸 Exterior and structure dimension		
	D 1	D 2	L 1	L 4		D 3	L 2	L 3
FQ 14	φ 21	φ 12.2	21	5.4	φ 6	φ 6	35	60
FQ 18	φ 27	φ 16.6	21	5.4	φ 10	φ 10	38	69

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类型 Type	安装及外型尺寸 Exterior and fixing dimension				
	a	b	D1	D2	D3
FQ 14	17±0.2	24	φ14	φ12.2	φ16.8
FQ 18	20±0.2	27	φ18	φ16.6	φ21.2



插座类型 Receptacle type	安装尺寸 Fixing dimension				电缆直径 Diameter of cable	外型结构尺寸 Features and structure size
	D3	a	b	L1		L2
FQ 14	16.8	17	24	21	6	35
FQ 18	21.2	20	27	21	10	38

型号及相配关系 Models and accessories relations		接触直径 Diameter of contact	电流 Current
插头 Plug	插座 Receptacle		
FQ 14-2T-6	FQ 14-2Z	φ1.5	10A
FQ 14-3T-6	FQ 14-3Z	φ1.0	3A
FQ 14-4T-6	FQ 14-4Z	φ1.0	3A
FQ 14-5T-6	FQ 14-5Z	φ1.0	3A
FQ-7T-6	FQ 14-7Z	φ1.0	3A
FQ-9T-6	FQ 14-9Z	φ0.8	2A