

轮辐式传感器

Spoke Load Cell

本公司自主研发生产的轮辐式拉压力传感器采用轮辐式弹性体结构利用剪切应力原理，具有低外形、抗偏载、精度高强度好、安装方便，拉压输出对称性好等特点。
(仅展示部分常规品，支持非标定制。)

Spoke Load Cell:

Our company's independently developed and manufactured spoke-type tension and compression sensors employ a spoke-type elastic structure based on the principle of shear stress. They feature a low profile, resistance to off-centre loading, high precision and strength, ease of installation, and excellent symmetry in tension and compression output.
(Please note that the products showcased represent only a portion of our standard offerings, as we also support OEM&ODM.)



主要应用于:

工业系统中力的测量和天车秤、轨道衡、料斗秤、地磅、伺服压机等各种称重、测力的工业自动化测量控制系统。

Applications:

Force measurement in industrial systems and industrial automation measurement and control systems for various weighing and force measurement applications, including overhead crane scales, rail scales, hopper scales, weighbridges, and servo presses.

专业生产传感器

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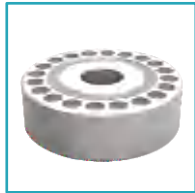
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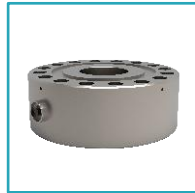
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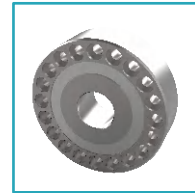
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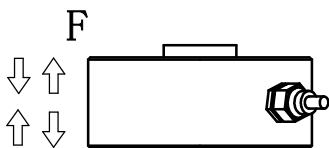


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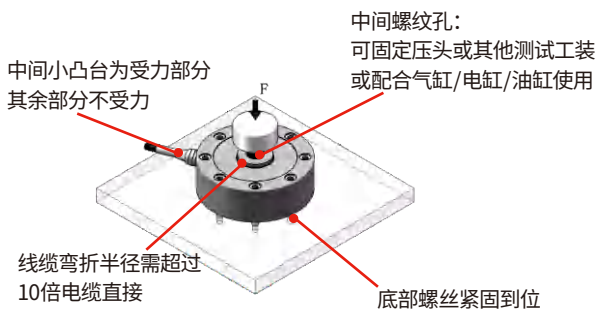
轮辐式传感器

受力方向 Load Direction

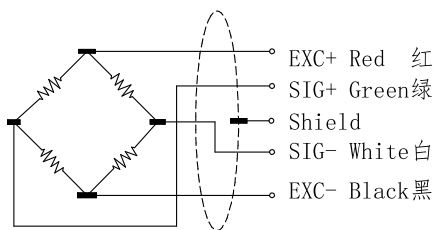


安装方式 Installation

● 轮辐式安装



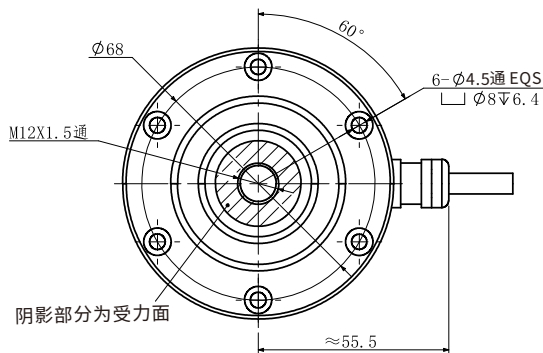
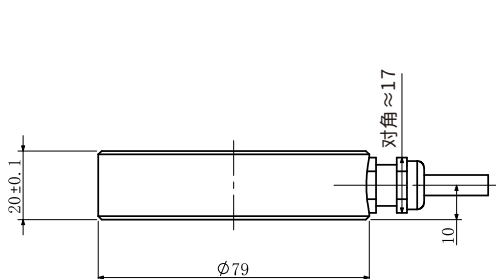
接线图 Wiring



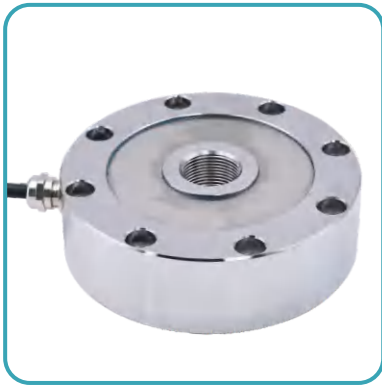
技术参数 Specifications

传感器物理参数 Sensor Physical Parameters		
额定量程 Nominal Capacity	kg	200,300,500,100,2000kg
满量程位移量 Deflection at Full Scale	mm	<0.049
固有频率 Natural Frequency	Hz	>3K
过载能力 Safe Overload	%	120
工作温度 Operating Temperature	°C	-10~60
防护等级 Ingress Protection (IP)	IP	65
电缆长度 Cable	M	φ5×3m
弹性体材料 Spring Element Material	-	17-4PH
测量方向 Loading Direction	-	拉压双向
传感器精度参数 Sensor Accuracy Parameters		
综合精度 Combined Error	%	≤0.2
线性误差 Non-linearity	%	≤0.2
相对滞后 Hysteresis	%	≤0.2
重复误差 Repeatability	%	≤0.05
负载蠕变 Creep (30 min)	%	≤0.05
温度漂移 Temperature Effect on Output	%	0.1%/10°C
传感器电气参数 Electrical Parameters		
满量程输出 Rated Output	mV/V	2.0±10%
激励电压 Excitation Voltage	V(DC)	5~12
绝缘电阻 Insulation Resistance	MΩ/VDC	≥5000/100

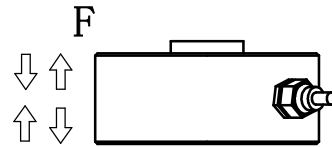
安装尺寸 Dimensions



FA196B



受力方向 Load Direction

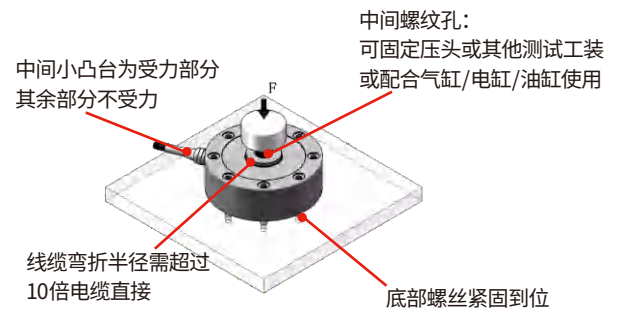


技术参数 Specifications

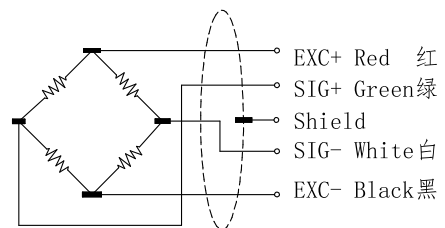
传感器物理参数 Sensor Physical Parameters		
额定量程 Nominal Capacity	t	1,2,3,5,7t
满量程位移量 Deflection at Full Scale	mm	<0.071
固有频率 Natural Frequency	Hz	>4K
过载能力 Safe Overload	%	150
工作温度 Operating Temperature	°C	-10~60
防护等级 Ingress Protection (IP)	IP	65
电缆长度 Cable	M	φ5×3m
弹性体材料 Spring Element Material	-	17-4PH
测量方向 Loading Direction	-	拉压双向
传感器精度参数 Sensor Accuracy Parameters		
综合精度 Combined Error	%	≤0.1
线性误差 Non-linearity	%	≤0.05
相对滞后 Hysteresis	%	≤0.1
重复误差 Repeatability	%	≤0.05
负载蠕变 Creep (30 min)	%	≤0.05
温度漂移 Temperature Effect on Output	%	0.1%/10°C
传感器电气参数 Electrical Parameters		
满量程输出 Rated Output	mV/V	2.0±10%
激励电压 Excitation Voltage	V(DC)	5~12
绝缘电阻 Insulation Resistance	MΩ/VDC	≥5000/100

安装方式 Installation

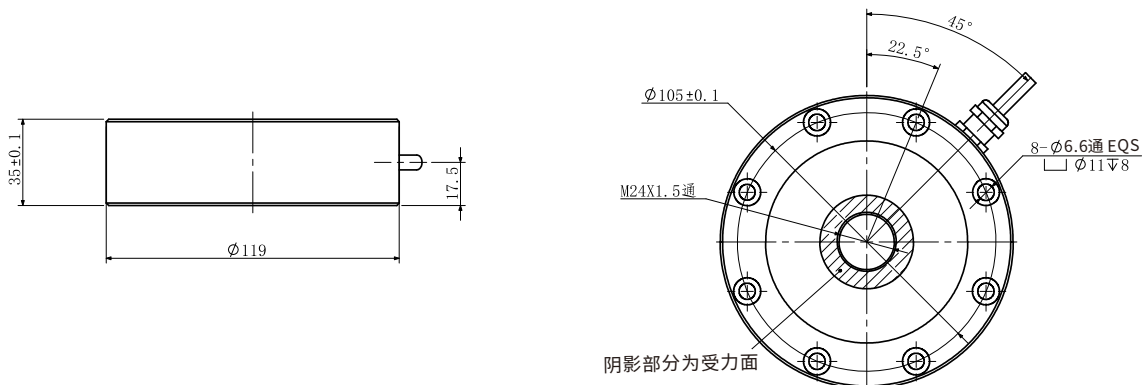
● 轮辐式安装



接线图 Wiring



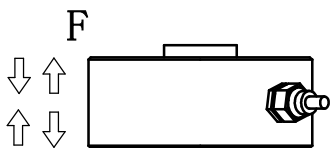
安装尺寸 Dimensions



FA196C

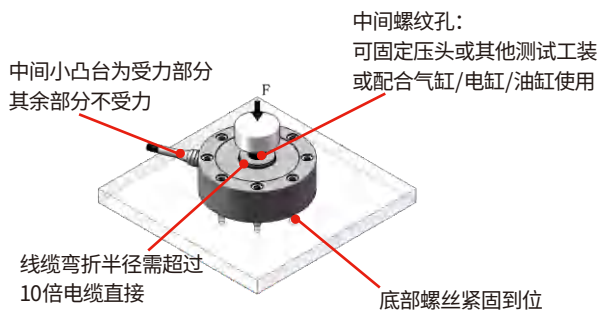
轮辐式传感器

受力方向 Load Direction

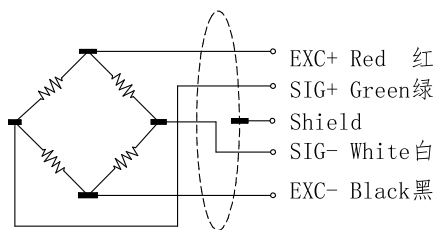


安装方式 Installation

● 轮辐式安装



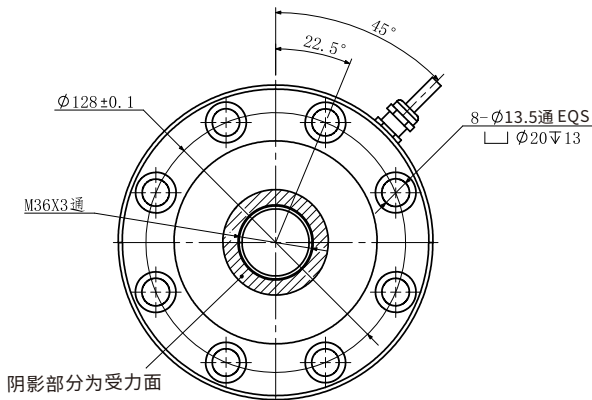
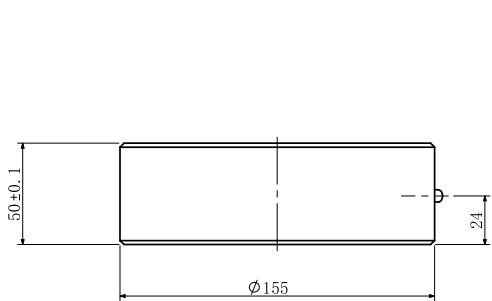
接线图 Wiring



技术参数 Specifications

传感器物理参数 Sensor Physical Parameters		
额定量程 Nominal Capacity	t	10,15,20t
满量程位移量 Deflection at Full Scale	mm	<0.088
固有频率 Natural Frequency	Hz	>5K
过载能力 Safe Overload	%	150
工作温度 Operating Temperature	°C	-10~60
防护等级 Ingress Protection (IP)	IP	65
电缆长度 Cable	M	φ5×3m
弹性体材料 Spring Element Material	-	17-4PH
测量方向 Loading Direction	-	拉压双向
传感器精度参数 Sensor Accuracy Parameters		
综合精度 Combined Error	%	≤0.2
线性误差 Non-linearity	%	≤0.1
相对滞后 Hysteresis	%	≤0.2
重复误差 Repeatability	%	≤0.05
负载蠕变 Creep (30 min)	%	≤0.1
温度漂移 Temperature Effect on Output	%	0.1%/10°C
传感器电气参数 Electrical Parameters		
满量程输出 Rated Output	mV/V	2.0±10%
激励电压 Excitation Voltage	V(DC)	5~12
绝缘电阻 Insulation Resistance	MΩ/VDC	≥5000/100

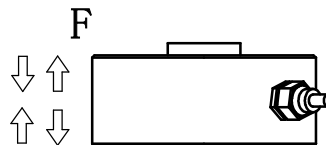
安装尺寸 Dimensions



FA120A

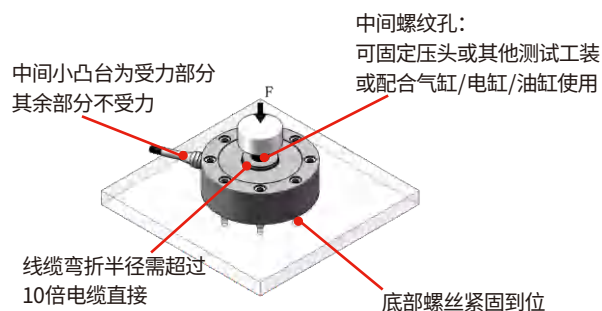


受力方向 Load Direction

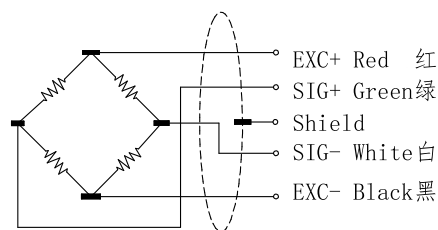


安装方式 Installation

● 轮辐式安装



接线图 Wiring



技术参数 Specifications

传感器物理参数 Sensor Physical Parameters

额定量程 Nominal Capacity	kg/t	50,100,200,500kg/1t
满量程位移量 Deflection at Full Scale	mm	<0.048
固有频率 Natural Frequency	Hz	>1K
过载能力 Safe Overload	%	150
工作温度 Operating Temperature	°C	-20~70
防护等级 Ingress Protection (IP)	IP	65
电缆长度 Cable	M	φ6×3m
弹性体材料 Spring Element Material	-	合金钢
测量方向 Loading Direction	-	拉压双向

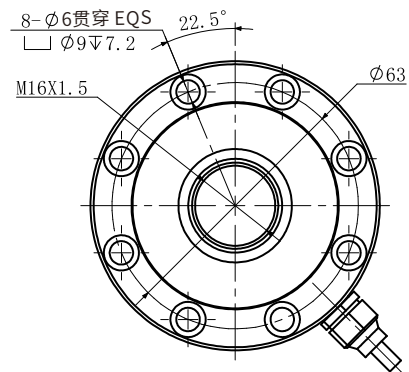
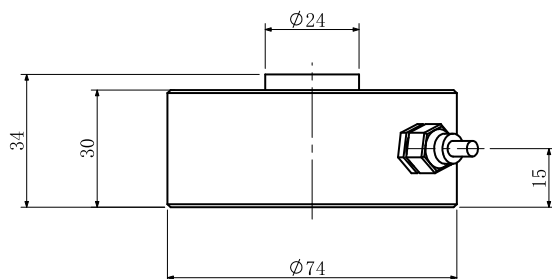
传感器精度参数 Sensor Accuracy Parameters

综合精度 Combined Error	%	≤0.05
线性误差 Non-linearity	%	≤0.05
相对滞后 Hysteresis	%	≤0.05
重复误差 Repeatability	%	≤0.03
负载蠕变 Creep (30 min)	%	≤0.03
温度漂移 Temperature Effect on Output	%	0.05%/10°C

传感器电气参数 Electrical Parameters

满量程输出 Rated Output	mV/V	2.0±1%
激励电压 Excitation Voltage	V(DC)	5~12
绝缘电阻 Insulation Resistance	MΩ/VDC	≥5000/100

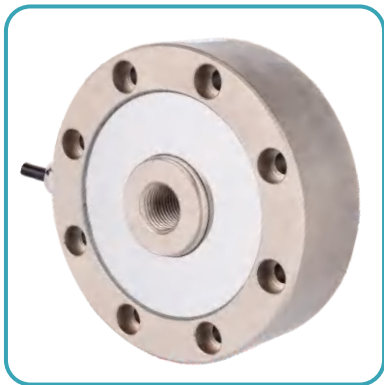
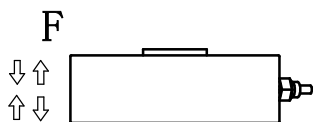
安装尺寸 Dimensions



FA120B

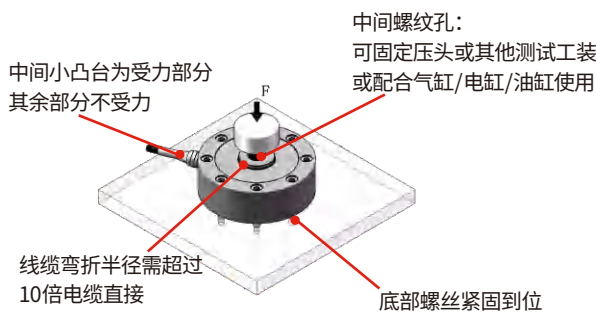
轮辐式传感器

受力方向 Load Direction

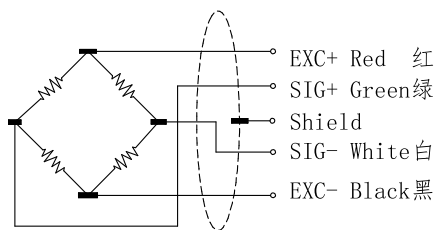


安装方式 Installation

● 轮辐式安装



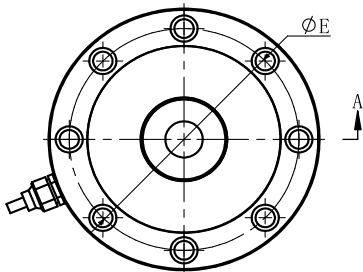
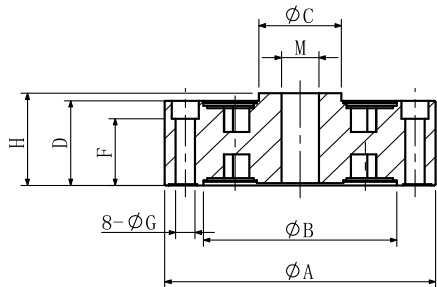
接线图 Wiring



技术参数 Specifications

传感器物理参数 Sensor Physical Parameters		
额定量程 Nominal Capacity	t	0.1,0.2,1,2,3,5,7,10,15,20,30t
满量程位移量 Deflection at Full Scale	mm	<0.12
固有频率 Natural Frequency	Hz	>4K
过载能力 Safe Overload	%	150
工作温度 Operating Temperature	°C	-10~70
防护等级 Ingress Protection (IP)	IP	66
电缆长度 Cable	M	φ6x5m
弹性体材料 Spring Element Material	-	合金钢
测量方向 Loading Direction	-	拉压双向
传感器精度参数 Sensor Accuracy Parameters		
综合精度 Combined Error	%	≤0.05
线性误差 Non-linearity	%	≤0.05
相对滞后 Hysteresis	%	≤0.05
重复误差 Repeatability	%	≤0.03
负载蠕变 Creep (30 min)	%	≤0.05
温度漂移 Temperature Effect on Output	%	0.05%/10°C
传感器电气参数 Electrical Parameters		
满量程输出 Rated Output	mV/V	2.0±1%
激励电压 Excitation Voltage	V(DC)	5~12
绝缘电阻 Insulation Resistance	MΩ/VDC	≥5000/100

安装尺寸 Dimensions



Cap(t)	A	B	C	D	E	F	G	H	M
0.1,0.2,1,2,3,5,7	105	75	32	34	89	26.8	7.5	37	M16*1.5
10,15,20	120.6	83	39	41	101.8	30.5	8.5	53.5	M32*1.5
30	141	96.9	50.4	50.8	116.8	39.8	11	57.2	M40*1.5

FA120C



受力方向 Load Direction

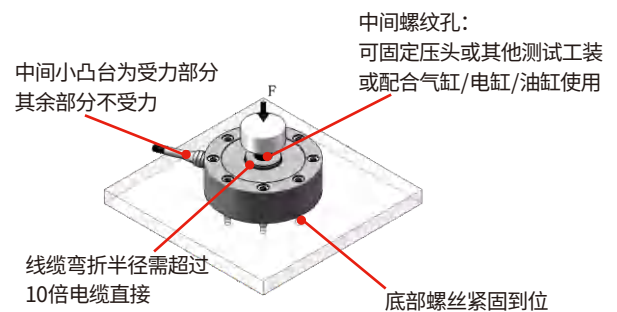


技术参数 Specifications

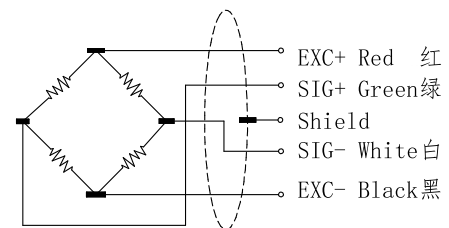
传感器物理参数 Sensor Physical Parameters		
额定量程 Nominal Capacity	t	50,70t
满量程位移量 Deflection at Full Scale	mm	<0.09
固有频率 Natural Frequency	Hz	>5K
过载能力 Safe Overload	%	150
工作温度 Operating Temperature	°C	-10~70
防护等级 Ingress Protection (IP)	IP	66
电缆长度 Cable	M	φ6x5m
弹性体材料 Spring Element Material	-	合金钢
测量方向 Loading Direction	-	拉压双向
传感器精度参数 Sensor Accuracy Parameters		
综合精度 Combined Error	%	≤0.1
线性误差 Non-linearity	%	≤0.1
相对滞后 Hysteresis	%	≤0.1
重复误差 Repeatability	%	≤0.05
负载蠕变 Creep (30 min)	%	≤0.1
温度漂移 Temperature Effect on Output	%	0.05%/10°C
传感器电气参数 Electrical Parameters		
满量程输出 Rated Output	mV/V	2.0±1%
激励电压 Excitation Voltage	V(DC)	5~12
绝缘电阻 Insulation Resistance	MΩ/VDC	≥5000/100

安装方式 Installation

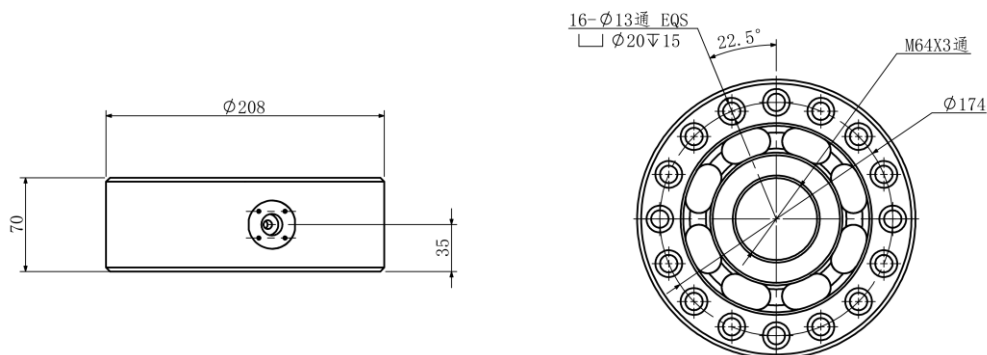
● 轮辐式安装



接线图 Wiring



安装尺寸 Dimensions



FA120D

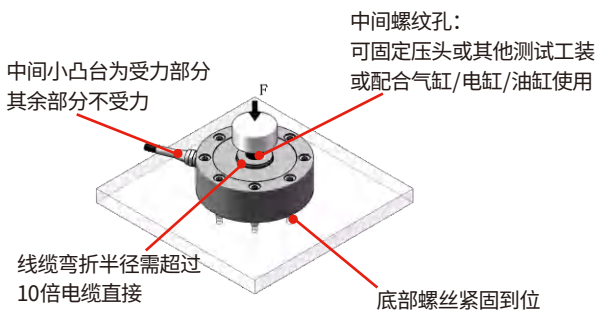
轮辐式传感器

受力方向 Load Direction

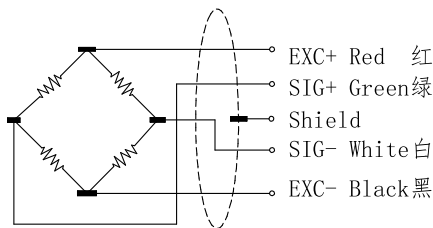


安装方式 Installation

● 轮辐式安装



接线图 Wiring



技术参数 Specifications

传感器物理参数 Sensor Physical Parameters

额定量程 Nominal Capacity	t	100,150t
满量程位移量 Deflection at Full Scale	mm	<0.12
固有频率 Natural Frequency	Hz	>5K
过载能力 Safe Overload	%	150
工作温度 Operating Temperature	°C	-10~70
防护等级 Ingress Protection (IP)	IP	66
电缆长度 Cable	M	φ6x5m
弹性体材料 Spring Element Material	-	合金钢
测量方向 Loading Direction	-	拉压双向

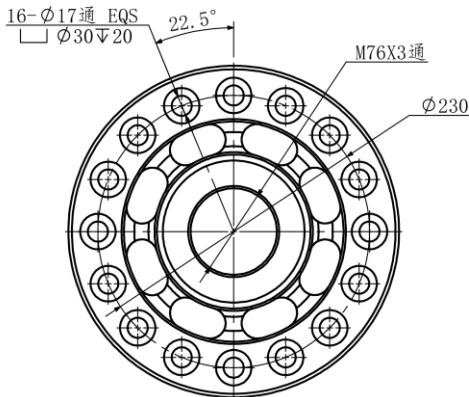
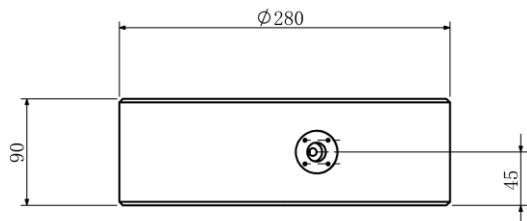
传感器精度参数 Sensor Accuracy Parameters

综合精度 Combined Error	%	≤0.1
线性误差 Non-linearity	%	≤0.1
相对滞后 Hysteresis	%	≤0.4
重复误差 Repeatability	%	≤0.05
负载蠕变 Creep (30 min)	%	≤0.1
温度漂移 Temperature Effect on Output	%	0.05%/10°C

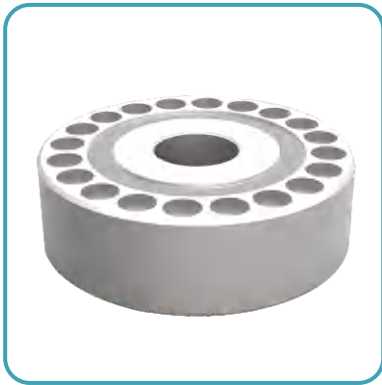
传感器电气参数 Electrical Parameters

满量程输出 Rated Output	mV/V	2.0 ± 1%
激励电压 Excitation Voltage	V(DC)	5~12
绝缘电阻 Insulation Resistance	MΩ/VDC	≥5000/100

安装尺寸 Dimensions



FA120E



受力方向 Load Direction

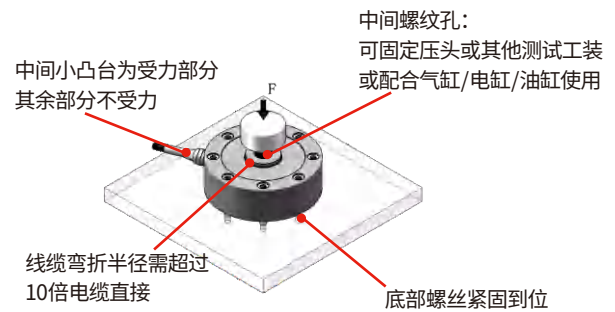


技术参数 Specifications

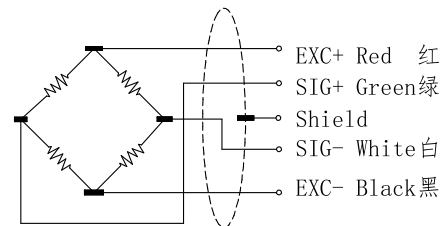
传感器物理参数 Sensor Physical Parameters		
额定量程 Nominal Capacity	t	200,250,300t
满量程位移 Deflection at Full Scale	mm	<0.15
固有频率 Natural Frequency	Hz	>5K
过载能力 Safe Overload	%	150
工作温度 Operating Temperature	°C	-20~70
防护等级 Ingress Protection (IP)	IP	66
电缆长度 Cable	M	φ6x5m
弹性体材料 Spring Element Material	-	合金钢
测量方向 Loading Direction	-	拉压双向
传感器精度参数 Sensor Accuracy Parameters		
综合精度 Combined Error	%	≤0.1
线性误差 Non-linearity	%	≤0.1
相对滞后 Hysteresis	%	≤0.1
重复误差 Repeatability	%	≤0.03
负载蠕变 Creep (30 min)	%	≤0.1
温度漂移 Temperature Effect on Output	%	0.05%/10°C
传感器电气参数 Electrical Parameters		
满量程输出 Rated Output	mV/V	2.0±1%
激励电压 Excitation Voltage	V(DC)	5~12
绝缘电阻 Insulation Resistance	MΩ/VDC	≥5000/100

安装方式 Installation

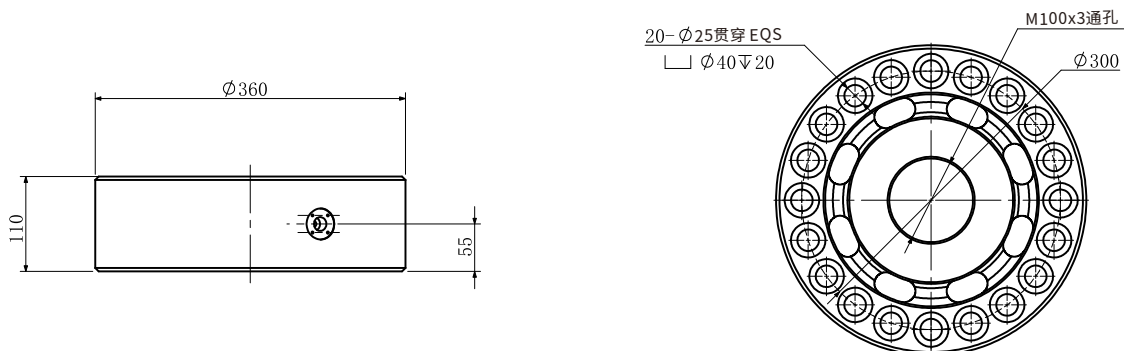
● 轮辐式安装



接线图 Wiring

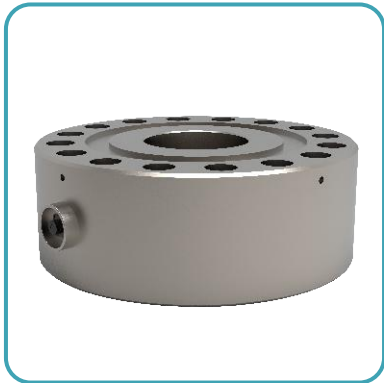


安装尺寸 Dimensions

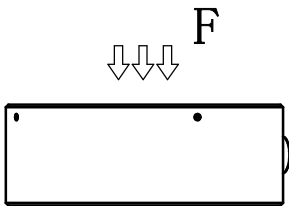


FA120F

轮辐式传感器

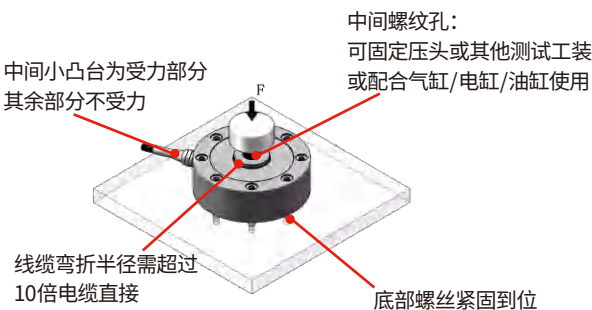


受力方向 Load Direction

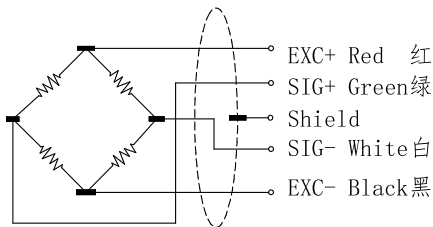


安装方式 Installation

● 轮辐式安装



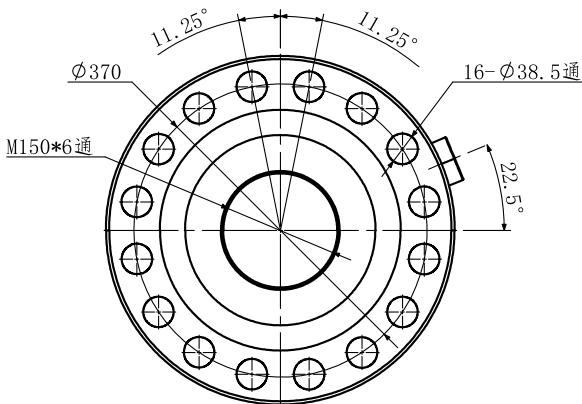
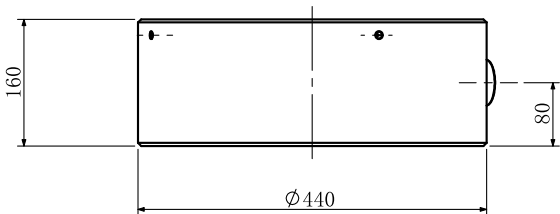
接线图 Wiring



技术参数 Specifications

传感器物理参数 Sensor Physical Parameters		
额定量程 Nominal Capacity	t	500t
过载能力 Safe Overload	%	150
工作温度 Operating Temperature	°C	-20~70
防护等级 Ingress Protection (IP)	IP	66
电缆长度 Cable	M	φ6x5m
弹性体材料 Spring Element Material		合金钢
测量方向 Loading Direction		拉压双向
传感器精度参数 Sensor Accuracy Parameters		
综合精度 Combined Error	%	≤0.3
线性误差 Non-linearity	%	≤0.3
相对滞后 Hysteresis	%	≤0.3
重复误差 Repeatability	%	≤0.3
负载蠕变 Creep (30 min)	%	≤0.1
温度漂移 Temperature Effect on Output	%	0.1%/10°C
传感器电气参数 Electrical Parameters		
满量程输出 Rated Output	mV/V	2.0±1%
激励电压 Excitation Voltage	V(DC)	5~12
绝缘电阻 Insulation Resistance	MΩ/VDC	≥5000/100

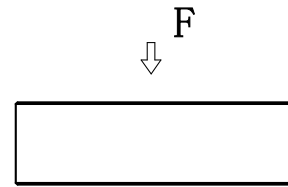
安装尺寸 Dimensions



FA120G

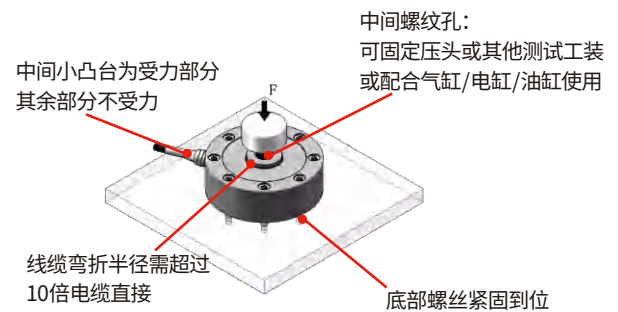


受力方向 Load Direction

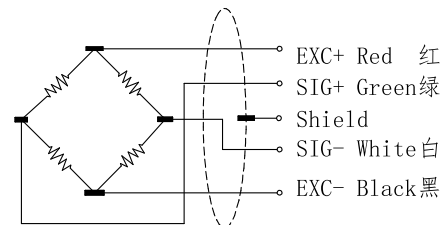


安装方式 Installation

● 轮辐式安装



接线图 Wiring



技术参数 Specifications

传感器物理参数 Sensor Physical Parameters

额定量程 Nominal Capacity	t	压向: 1200t
过载能力 Safe Overload	%	120
工作温度 Operating Temperature	°C	-20~80
防护等级 Ingress Protection (IP)	IP	66
电缆长度 Cable	M	3m
弹性体材料 Spring Element Material		合金钢
测量方向 Loading Direction		拉压双向

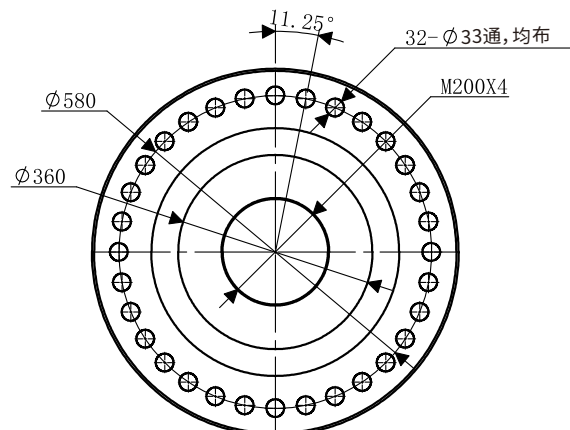
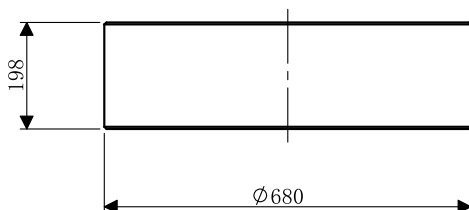
传感器精度参数 Sensor Accuracy Parameters

综合精度 Combined Error	%	≤0.3
线性误差 Non-linearity	%	≤0.3
相对滞后 Hysteresis	%	≤0.3
重复误差 Repeatability	%	≤0.2
负载蠕变 Creep (30 min)	%	≤0.1
温度漂移 Temperature Effect on Output	%	0.05%/10°C

传感器电气参数 Electrical Parameters

满量程输出 Rated Output	mV/V	2.0 ± 1%
激励电压 Excitation Voltage	V(DC)	5~12
绝缘电阻 Insulation Resistance	MΩ/VDC	≥5000/100

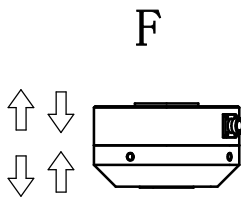
安装尺寸 Dimensions



FA1141

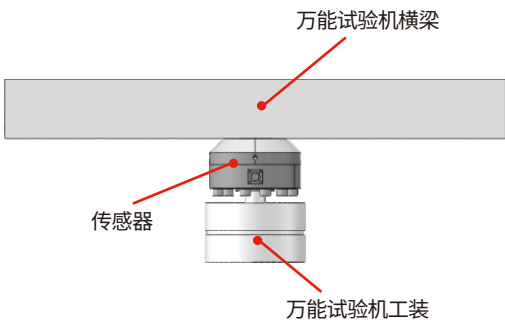
轮辐式传感器

受力方向 Load Direction

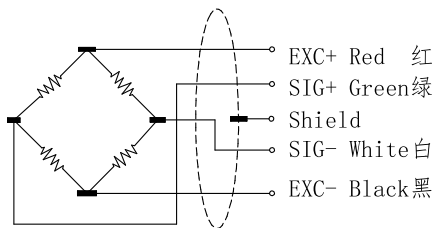


安装方式 Installation

● 轮辐式安装



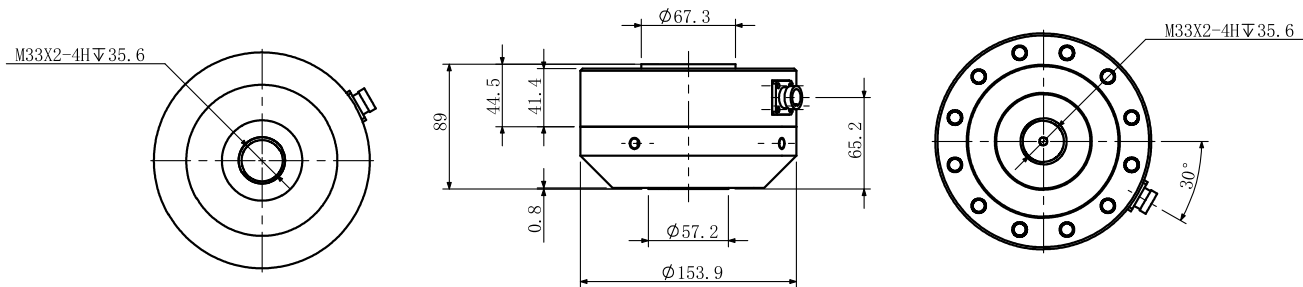
接线图 Wiring



技术参数 Specifications

传感器物理参数 Sensor Physical Parameters			
额定量程 Nominal Capacity	kN	100,250kN	
满量程位移量 Deflection at Full Scale	mm	<0.12	
固有频率 Natural Frequency	Hz	>5K	
过载能力 Safe Overload	%	150	
工作温度 Operating Temperature	°C	-20~70	
防护等级 Ingress Protection (IP)	IP	66	
电缆长度 Cable	M	3m	
弹性体材料 Spring Element Material	-	合金钢	
测量方向 Loading Direction	-	拉压双向	
传感器精度参数 Sensor Accuracy Parameters			
综合精度 Combined Error	%	≤0.03	
线性误差 Non-linearity	%	≤0.03	
相对滞后 Hysteresis	%	≤0.03	
重复误差 Repeatability	%	≤0.02	
负载蠕变 Creep (30 min)	%	≤0.02	
温度漂移 Temperature Effect on Output	%	0.15%/10°C	
传感器电气参数 Electrical Parameters			
满量程输出 Rated Output	mV/V	2.0 ± 1%	
激励电压 Excitation Voltage	V(DC)	5~12	
绝缘电阻 Insulation Resistance	MΩ/VDC	≥5000/100	

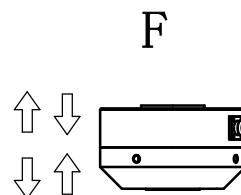
安装尺寸 Dimensions



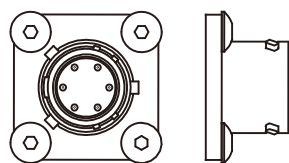
FI10系列-小量程



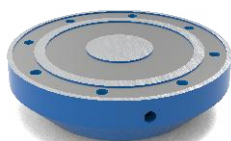
受力方向 Load Direction



产品机械接口 Product Mechanical Interface



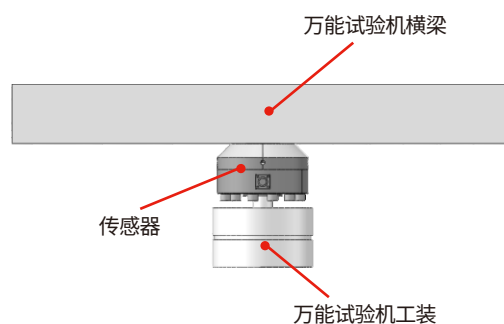
ACK 卡扣式连接器



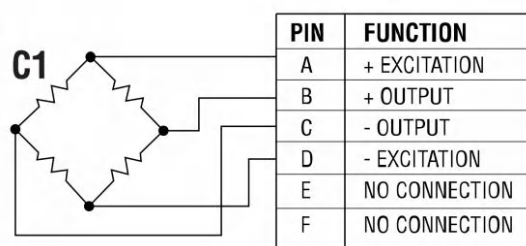
底座

安装方式 Installation

● 轮辐式安装



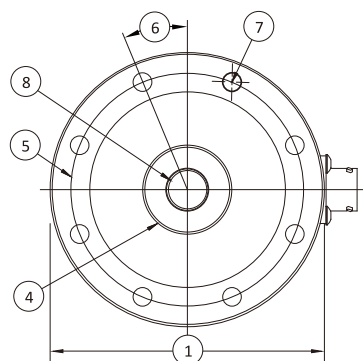
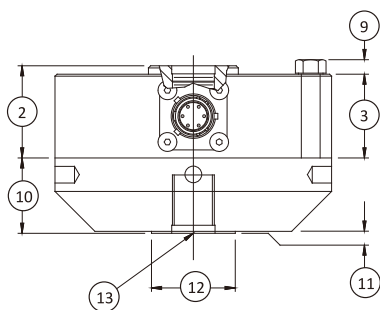
接线图 Wiring



线缆长度: 默认3m

安装尺寸参数 Installation Dimensions

参数表见下页



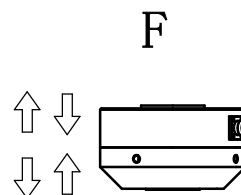
安装尺寸参数 Installation Dimensions

型号	FI-1010A	FI-1010B	FI-1020	FI-1032
量程	1.25,2.5,5kN	12.5,25kN	50,125kN	225kN
1	φ104.8	φ104.8	φ153.9	φ203.2
2	34.9	34.9	44.5	63.5
3	31.7	31.7	41.4	57.2
4	φ34.0	φ34.0	φ67.3	φ95.2
5	φ88.9	φ88.9	φ130.3	φ165.1
6	22.5°C	22.5°C	15°C	11.25°C
7	8-φ7.1	8-φ7.1	12-φ10.4	16-φ13.5
8	M16x2-4H ↓ 28.4mm	M16x2-4H ↓ 28.4mm	M33x2-4H ↓ 35.6mm	M42x2-4H ↓ 54.6mm
9	5.1	5.1	7.6	10.2
10	28.6	28.6	44.5	50.8
11	0.8	0.8	0.8	0.80
12	φ31.8	φ31.8	φ57.2	φ76.2
13	M16x2-4H ↓ 22.1mm	M16x2-4H ↓ 22.1mm	M33x2-4H ↓ 35.6mm	M42x2-4H ↓ 44.5mm
非线性	±0.05%FS	±0.05%FS	±0.05%FS	±0.05%FS
滞后性	±0.03%FS	±0.04%FS	±0.05%FS	±0.05%FS
重复性	±0.02%RO	±0.02%RO	±0.02%RO	±0.02%RO
测量力影响	±0.25%	±0.25%	±0.25%	±0.25%
温度补偿范围	-20~70°C	-20~70°C	-20~70°C	-20~70°C
工作温度	-30~70°C	-30~70°C	-30~70°C	-30~70°C
零点漂移	±0.005%RO/°C	±0.005%RO/°C	±0.005%RO/°C	±0.005%RO/°C
灵敏度	1.0mV/V	1.0mV/V	1.0mV/V	1.0mV/V
激励电压	15VDC	15VDC	15VDC	15VDC
典型桥路电阻	350Ohm	350Ohm	350Ohm	350Ohm
零点输出	±3.0%RO	±3.0%RO	±3.0%RO	±3.0%RO
绝缘电阻	≥2000MΩ	≥2000MΩ	≥2000MΩ	≥2000MΩ
安全过载	±150%CAP	±150%CAP	±150%CAP	±150%CAP
底座(可选底座)	B(具体见尺寸图)	B(具体见尺寸图)	B(具体见尺寸图)	B(具体见尺寸图)
连接方式	ACK	ACK	ACK	ACK
标定方式	拉力&压力	拉力&压力	拉力&压力	拉力&压力
材质	铝合金	合金钢	合金钢	合金钢

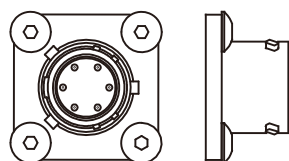
FI10系列-大量程



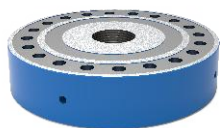
受力方向 Load Direction



产品机械接口 Product Mechanical Interface



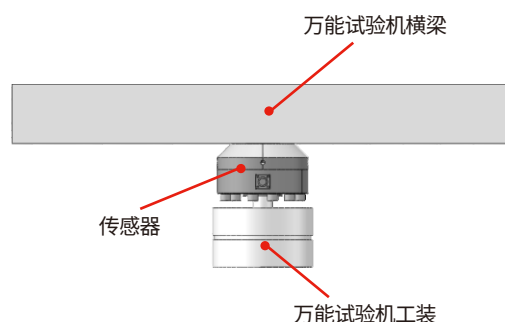
ACK 卡扣式连接器



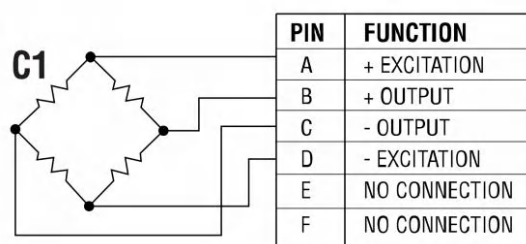
底座

安装方式 Installation

● 轮辐式安装



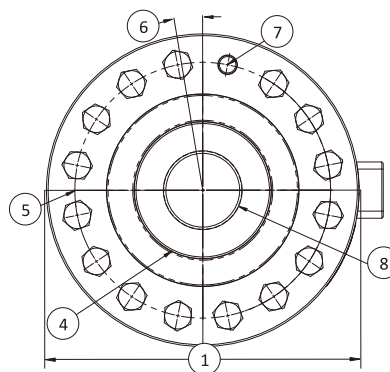
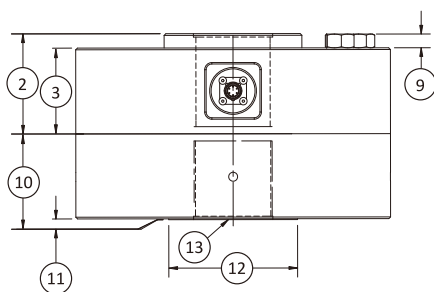
接线图 Wiring



线缆长度: 默认3m

安装尺寸参数 Installation Dimensions

参数表见下页



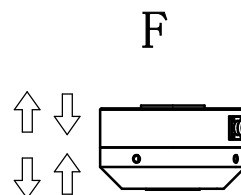
安装尺寸参数 Installation Dimensions

型号	FI-1040	FI-1044	FI-1052	FI-1060	FI-1080	FI-1090
量程	450kN	600kN	900kN	1500kN	2250kN	4500kN
1	φ279.0	φ279.0	φ304.8	φ393.7	φ520.7	φ660.4
2	88.9	101.6	114.3	139.7	158.8	196.9
3	76.2	82.6	108.0	127.0	152.4	190.5
4	φ122.2	φ122.2	φ114.3	φ196.3	φ267.9	φ350.3
5	φ228.6	φ222.2	φ250.8	φ322.1	φ419.1	φ520.7
6	11.25°C	11.25°C	9.00°C	7.50°C	6.43°C	5.63°C
7	16-φ16.5	16-φ20.1	20-φ21.0	24-φ23.9	28-φ27.0	32-φ33.3
8	M72x2-4H ⊥ 82.6mm	M72x2-4H ⊥ 96.3mm	M90x3-4H ⊥ 95.3mm	M120x4-4H ⊥ 108.0mm	M150x4-4H ⊥ 130.0mm	M200x4-4H ⊥ 178.0mm
9	12.7	12.7	15	17.5	5.1	31.3
10	76.2	101.6	114.3	127.0	28.6	228.6
11	0.8	0.8	0.8	0.8	0.8	2.5
12	φ114.3	φ114.3	φ152.4	φ196.9	φ31.8	φ355.6
13	M72x2-4H ⊥ 69.8mm	M72x2-4H ⊥ 95.3mm	M90x3-4H ⊥ 95.3mm	M120x4-4H ⊥ 108.0mm	M150x4-4H ⊥ 162.0mm	M200x4-4H ⊥ 184.0mm
非线性	±0.06%FS	±0.07%FS	±0.09%FS	±0.10%FS	±0.15%FS	±0.20%FS
滞后性	±0.06%FS	±0.08%FS	±0.09%FS	±0.10%FS	±0.15%FS	±0.20%FS
重复性	±0.06%RO	±0.08%RO	±0.09%RO	±0.10%RO	±0.15%RO	±0.20%RO
测量力影响	±0.1%	±0.25%	±0.25%	±0.25%	±0.25%	±0.25%
温度补偿范围	-20~70°C	-20~70°C	-20~70°C	-20~70°C	-20~70°C	-20~70°C
工作温度	-30~70°C	-30~70°C	-30~70°C	-30~70°C	-30~70°C	-30~70°C
零点漂移	±0.005%RO/°C	±0.005%RO/°C	±0.005%RO/°C	±0.005%RO/°C	±0.005%RO/°C	±0.005%RO/°C
灵敏度	1.0mV/V	1.0mV/V	1.0mV/V	1.0mV/V	1.0mV/V	1.0mV/V
激励电压	15VDC	15VDC	15VDC	15VDC	15VDC	15VDC
典型桥路电阻	350Ohm	350Ohm	350Ohm	350Ohm	350Ohm	350Ohm
零点输出	±3.0%RO	±3.0%RO	±3.0%RO	±3.0%RO	±3.0%RO	±3.0%RO
绝缘电阻	≥2000MΩ	≥2000MΩ	≥2000MΩ	≥2000MΩ	≥2000MΩ	≥2000MΩ
安全过载	±150%CAP	±150%CAP	±150%CAP	±150%CAP	±150%CAP	±150%CAP
底座(可选底座)	B(具体见尺寸图)	B(具体见尺寸图)	B(具体见尺寸图)	B(具体见尺寸图)	B(具体见尺寸图)	B(具体见尺寸图)
连接方式	ACK	ACK	ACK	ACK	ACK	ACK
标定方式	拉力&压力	拉力&压力	拉力&压力	拉力&压力	拉力&压力	拉力&压力
材质	合金钢	合金钢	合金钢	合金钢	合金钢	合金钢

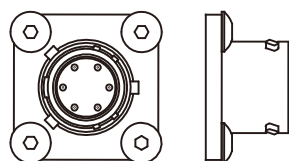
FI11系列高精度



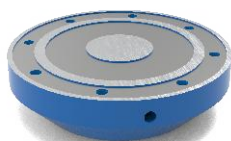
受力方向 Load Direction



产品机械接口 Product Mechanical Interface



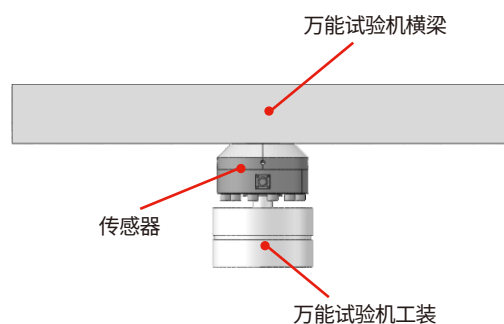
ACK 卡扣式连接器



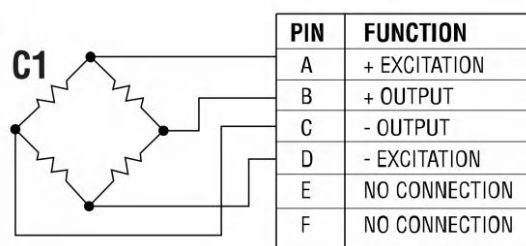
底座

安装方式 Installation

● 轮辐式安装



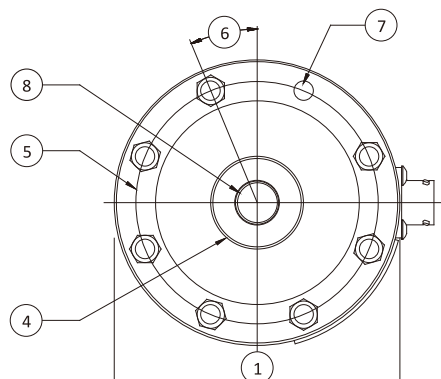
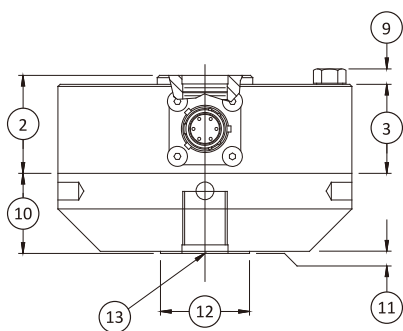
接线图 Wiring



线缆长度: 默认3m

安装尺寸参数 Installation Dimensions

参数表见下页



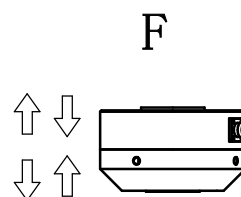
安装尺寸参数 Installation Dimensions

型号	FI-1110A	FI-1110B	FI-1120	FI-1132	FI-1140
量程	1.5,2.5,5,10kN	25,50kN	100,250kN	450kN	900kN
1	φ104.8	φ104.8	φ153.9	φ203.2	φ279.0
2	34.9	34.9	44.5	63.5	88.9
3	31.7	31.7	41.4	57.2	76.2
4	φ34.0	φ34.0	φ67.3	φ95.2	φ122.2
5	φ88.9	φ88.9	φ130.3	φ165.1	φ228.6
6	22.5°C	22.5°C	15°C	11.25°C	11.25°C
7	φ7.1	φ7.1	φ10.4	φ13.5	φ16.5
8	M16x2-4H ↓ 28.4mm	M16x2-4H ↓ 28.4mm	M33x2-4H ↓ 35.6mm	M42x2-4H ↓ 54.6mm	M72x2-4H ↓ 82.6mm
9	5.10	5.1	7.60	5.1	12.7
10	28.6	28.6	44.5	28.6	76.2
11	0.8	0.8	0.8	0.8	0.8
12	φ31.8	φ31.8	φ57.2	φ76.2	φ114.3
13	M16x2-4H ↓ 22.1mm	M16x2-4H ↓ 22.1mm	M33x2-4H ↓ 35.6mm	M42x2-4H ↓ 44.5mm	M72x2-4H ↓ 69.8mm
非线性	±0.03%FS	±0.035%FS	±0.035%FS	±0.05%FS	±0.06%FS
滞后性	±0.02%FS	±0.04%FS	±0.045%FS	±0.04%FS	±0.06%FS
重复性	±0.01%RO	±0.01%RO	±0.01%RO	±0.01%RO	±0.01%RO
测量力影响	±0.25%	±0.25%	±0.25%	±0.25%	±0.25%
温度补偿范围	-20~70°C	-20~70°C	-20~70°C	-20~70°C	-20~70°C
工作温度	-30~70°C	-30~70°C	-30~70°C	-30~70°C	-30~70°C
零点漂移	±0.005%RO/°C	±0.005%RO/°C	±0.005%RO/°C	±0.005%RO/°C	±0.005%RO/°C
灵敏度	1.0mV/V	1.0mV/V	1.0mV/V	1.0mV/V	1.0mV/V
激励电压	15VDC	15VDC	15VDC	15VDC	15VDC
典型桥路电阻	350Ω	350Ω	350Ω	350Ω	350Ω
零点输出	±3.0%RO	±3.0%RO	±3.0%RO	±3.0%RO	±3.0%RO
绝缘电阻	≥2000MΩ	≥2000MΩ	≥2000MΩ	≥2000MΩ	≥2000MΩ
安全过载	±150%CAP	±150%CAP	±150%CAP	±150%CAP	±150%CAP
底座(可选底座)	B(具体见尺寸图)	B(具体见尺寸图)	B(具体见尺寸图)	B(具体见尺寸图)	B(具体见尺寸图)
连接方式	ACK	ACK	ACK	ACK	ACK
标定方式	拉力&压力	拉力&压力	拉力&压力	拉力&压力	拉力&压力
材质	铝合金	合金钢	合金钢	合金钢	合金钢

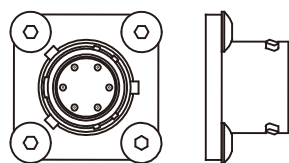
FI12系列-小量程



受力方向 Load Direction



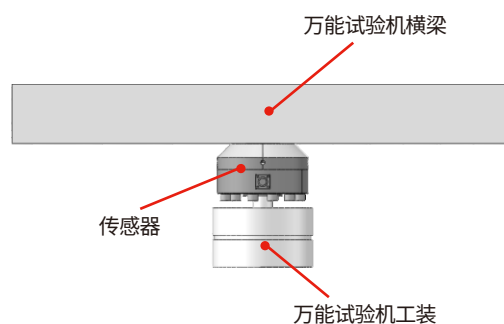
产品机械接口 Product Mechanical Interface



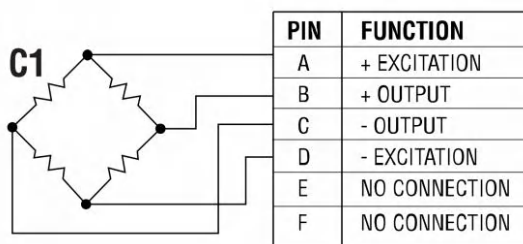
ACK 卡扣式连接器

安装方式 Installation

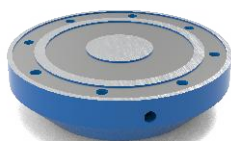
● 轮辐式安装



接线图 Wiring



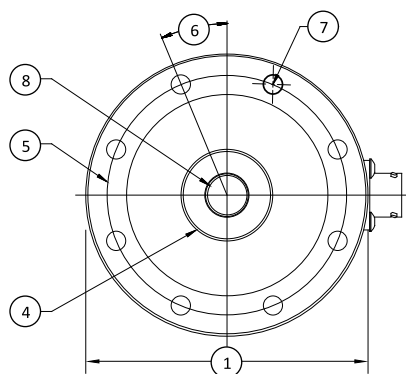
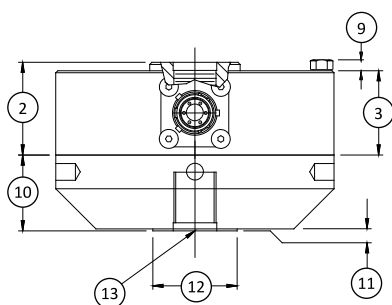
线缆长度: 默认3m



底座

安装尺寸参数 Installation Dimensions

参数表见下页



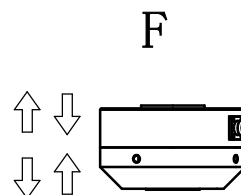
安装尺寸参数 Installation Dimensions

型号	FI-1210A	FI-1210B	FI-1220	FI-1232
量程	1.5,2.5,5,10kN	25,50kN	100,250kN	450kN
1	φ104.8	φ104.8	φ153.9	φ203.2
2	34.9	34.9	44.5	63.5
3	31.7	31.7	41.4	57.2
4	φ34.0	φ34.0	φ67.3	φ95.2
5	φ88.9	φ88.9	φ130.3	φ165.1
6	22.5°C	22.5°C	15°C	11.25°C
7	8-φ7.1	8-φ7.1	12-φ10.4	16-φ13.5
8	M16x2-4H ↓ 28.4mm	M16x2-4H ↓ 28.4mm	M33x2-4H ↓ 35.6mm	M42x2-4H ↓ 54.6mm
9	5.1	5.1	7.6	10.2
10	28.6	28.6	44.5	50.8
11	0.8	0.8	0.8	0.80
12	φ31.8	φ31.8	φ57.2	φ76.2
13	M16x2-4H ↓ 22.1mm	M16x2-4H ↓ 22.1mm	M33x2-4H ↓ 35.6mm	M42x2-4H ↓ 44.5mm
非线性	±0.05%FS	±0.05%FS	±0.05%FS	±0.05%FS
滞后性	±0.05%FS	±0.05%FS	±0.05%FS	±0.05%FS
重复性	±0.05%RO	±0.05%RO	±0.05%RO	±0.05%RO
测量力影响	±0.25%	±0.25%	±0.25%	±0.25%
温度补偿范围	-10~45°C	-10~45°C	-10~45°C	-10~45°C
工作温度	-30~70°C	-30~70°C	-30~70°C	-30~70°C
零点漂移	±0.005%RO/°C	±0.005%RO/°C	±0.005%RO/°C	±0.005%RO/°C
灵敏度	2.0mV/V	2.0mV/V	2.0mV/V	2.0mV/V
激励电压	15VDC	15VDC	15VDC	15VDC
典型桥路电阻	350Ω	350Ω	350Ω	350Ω
零点输出	±3.0%RO	±3.0%RO	±3.0%RO	±3.0%RO
绝缘电阻	≥2000MΩ	≥2000MΩ	≥2000MΩ	≥2000MΩ
安全过载	±150%CAP	±150%CAP	±150%CAP	±150%CAP
底座(可选底座)	B(具体见尺寸图)	B(具体见尺寸图)	B(具体见尺寸图)	B(具体见尺寸图)
连接方式	ACK	ACK	ACK	ACK
标定方式	拉力&压力	拉力&压力	拉力&压力	拉力&压力
材质	铝合金	合金钢	合金钢	合金钢

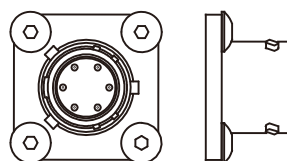
FI12系列-大量程



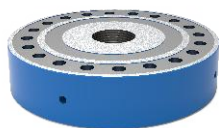
受力方向 Load Direction



产品机械接口 Product Mechanical Interface



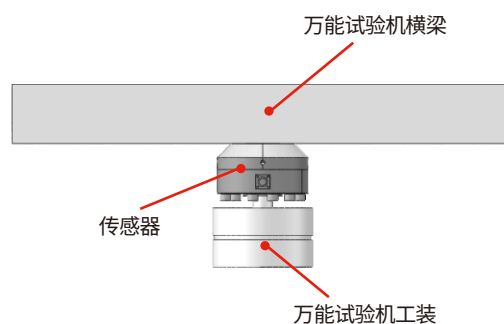
ACK 卡扣式连接器



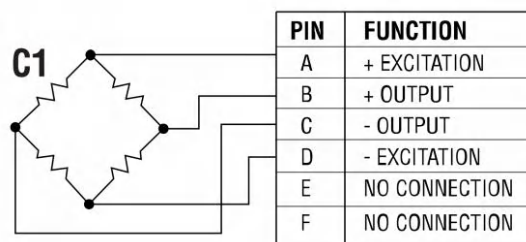
底座

安装方式 Installation

● 轮辐式安装



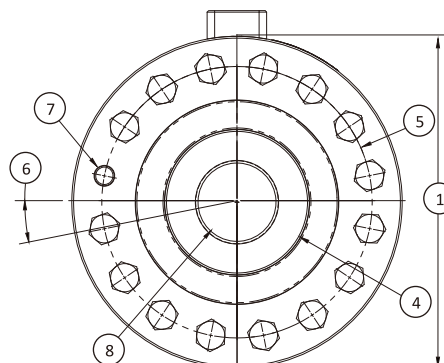
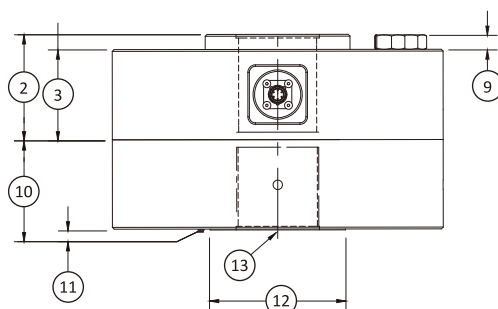
接线图 Wiring



线缆长度: 默认3m

安装尺寸参数 Installation Dimensions

参数表见下页



安装尺寸参数 Installation Dimensions

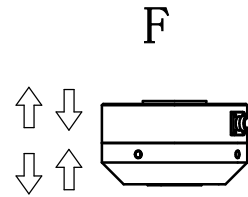
型号	FI-1240	FI-1244	FI-1252	FI-1260	FI-1280	FI-1290
量程	900kN	1200kN	1800kN	2700kN	4500kN	9000kN
1	φ279.0	φ279.0	φ304.8	φ393.7	φ520.7	φ660.4
2	88.9	101.6	114.3	139.7	158.8	196.9
3	76.2	82.6	108.0	127.0	152.4	190.5
4	φ122.2	φ122.2	φ114.3	φ196.3	φ267.9	φ350.3
5	φ228.6	φ222.2	φ250.8	φ322.1	φ419.1	φ520.7
6	11.25°C	11.25°C	9.00°C	7.50°C	6.43°C	5.63°C
7	16-φ16.5	16-φ20.1	20-φ21.0	24-φ23.9	28-φ27.0	32-φ33.3
8	M72x2-4H ± 70mm	M72x2-4H ± 95.3mm	M90x3-4H ± 104.9mm	M120x4-4H ± 108.0mm	M150x4-4H ± 143.0mm	M200x4-4H ± 178.0mm
9	12.7	12.7	15	17.5	25.4	31.3
10	76.2	101.6	114.3	127.0	177.8	228.6
11	0.8	0.8	0.8	0.8	0.8	2.5
12	φ114.3	φ114.3	φ152.4	φ196.9	φ267.9	φ355.6
13	M72x2-4H ± 69.8mm	M72x2-4H ± 69.8mm	M90x3-4H ± 95.3mm	M120x4-4H ± 108.0mm	M150x4-4H ± 162.0mm	M200x4-4H ± 184.0mm
非线性	± 0.07%FS	± 0.08%FS	± 0.10%FS	± 0.12%FS	± 0.15%FS	± 0.20%FS
滞后性	± 0.01%FS	± 0.08%FS	± 0.10%FS	± 0.12%FS	± 0.15%FS	± 0.20%FS
重复性	± 0.01%RO	± 0.02%RO	± 0.02%RO	± 0.02%RO	± 0.02%RO	± 0.02%RO
测量力影响	± 0.25%	± 0.25%	± 0.25%	± 0.25%	± 0.25%	± 0.25%
温度补偿范围	-20~70°C	-20~70°C	-20~70°C	-20~70°C	-20~70°C	-20~70°C
工作温度	-30~70°C	-30~70°C	-30~70°C	-30~70°C	-30~70°C	-30~70°C
零点漂移	± 0.005%RO/°C	± 0.005%RO/°C	± 0.005%RO/°C	± 0.005%RO/°C	± 0.005%RO/°C	± 0.005%RO/°C
灵敏度	2.0mV/V	2.0mV/V	2.0mV/V	2.0mV/V	2.0mV/V	2.0mV/V
激励电压	15VDC	15VDC	15VDC	15VDC	15VDC	15VDC
典型桥路电阻	350Ohm	350Ohm	350Ohm	350Ohm	350Ohm	350Ohm
零点输出	± 3.0%RO	± 3.0%RO	± 3.0%RO	± 3.0%RO	± 3.0%RO	± 3.0%RO
绝缘电阻	≥ 2000MΩ	≥ 2000MΩ	≥ 2000MΩ	≥ 2000MΩ	≥ 2000MΩ	≥ 2000MΩ
安全过载	± 150%CAP	± 150%CAP	± 150%CAP	± 150%CAP	± 150%CAP	± 150%CAP
底座(可选底座)	B(具体见尺寸图)	B(具体见尺寸图)	B(具体见尺寸图)	B(具体见尺寸图)	B(具体见尺寸图)	B(具体见尺寸图)
连接方式	ACK	ACK	ACK	ACK	ACK	ACK
标定方式	拉力&压力	拉力&压力	拉力&压力	拉力&压力	拉力&压力	拉力&压力
材质	合金钢	合金钢	合金钢	合金钢	合金钢	合金钢

FA1588

轮辐式传感器



受力方向 Load Direction



技术参数 Specifications

传感器物理参数 Sensor Physical Parameters

额定量程 Nominal Capacity	kN	1.25,2.5,5,12.5,25,50,125,250,500,1250
满量程位移量 Deflection at Full Scale	mm	<0.1
固有频率 Natural Frequency	Hz	>3.8KHZ
过载能力 Safe Overload	%	150
工作温度 Operating Temperature	°C	-20~80
防护等级 Ingress Protection (IP)	IP	65
电缆长度 Cable	M	φ6x5m
弹性体材料 Spring Element Material	-	17-4PH
测量方向 Loading Direction	-	拉压双向

传感器精度参数 Sensor Accuracy Parameters

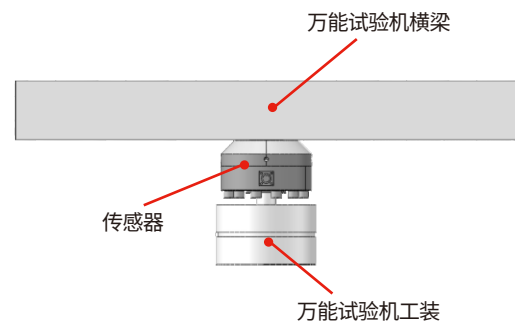
综合精度 Combined Error	%	≤±0.05
线性误差 Non-linearity	%	≤±0.05
相对滞后 Hysteresis	%	≤±0.05
重复误差 Repeatability	%	≤±0.05
负载蠕变 Creep (30 min)	%	≤±0.05(30min)
温度漂移 Temperature Effect on Output	%	≤±0.05/10°C

传感器电气参数 Electrical Parameters

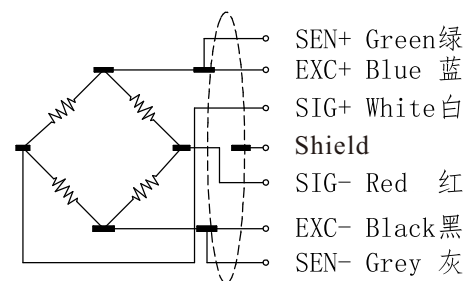
满量程输出 Rated Output	mV/V	2.0±10%
激励电压 Excitation Voltage	V(DC)	1~15
绝缘电阻 Insulation Resistance	MΩ/VDC	≥5000/100

安装方式 Installation

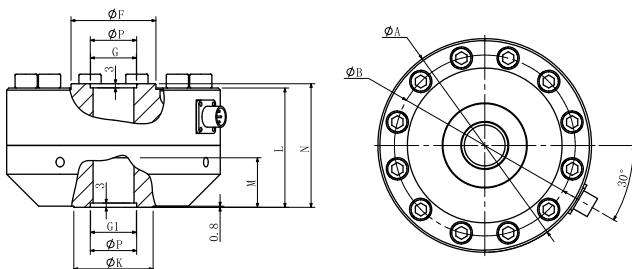
● 轮辐式安装



接线图 Wiring



安装尺寸 Dimensions



Cap(kN)	φA	φB	φF	G	G1	φP ₁₈	φK	L	M	N
1.25~5kN	104.8	88.9	30.4	M16X2-4H	M16X2-4H深度22.1	16.5	31.8	60.3	22	63.5
12.5~25kN	104.8	88.9	31.5	M16X2-4H	M16X2-4H深度22.1	16.5	31.8	60.3	22	63.5
50kN	153.9	130.3	61.2	M33X2-4H	M33X2-4H深度35.6	33.5	57.2	85.9	35.5	89
125kN	153.9	130.3	67.3	M33X2-4H	M33X2-4H深度35.6	33.5	57.2	85.9	35.5	89
250kN	203.2	165.1	95.5	M42X2-4H	M42X2-4H深度54.6	43	76.2	108	44	114.3
500kN	279	229	122.2	M72X2-4H	M72X2-4H深度82.6	73	114	152.4	69.5	165.1
1.25MN	390	322	190	M120X4-4H	M120X4-4H深度125	123	190	239	112	254