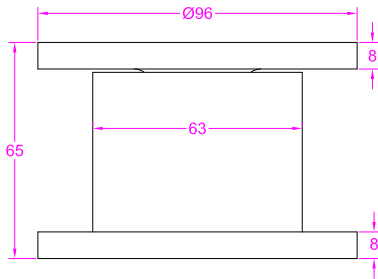
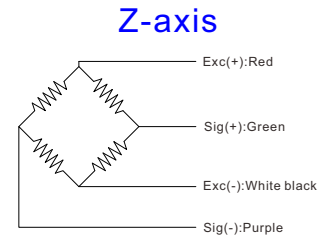
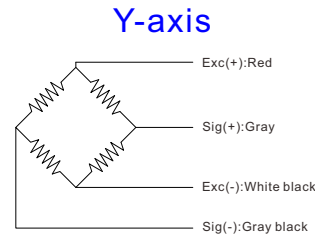
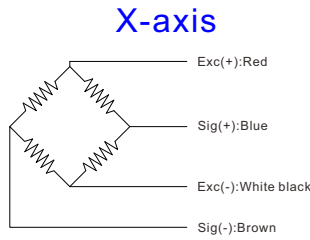
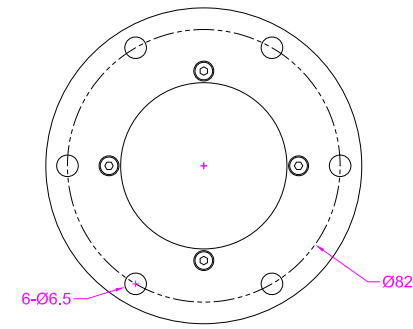


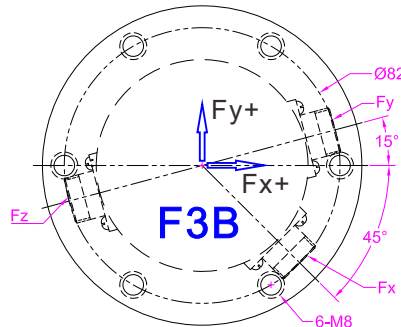
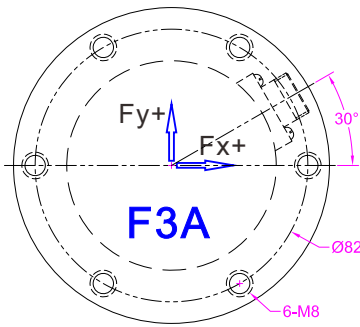
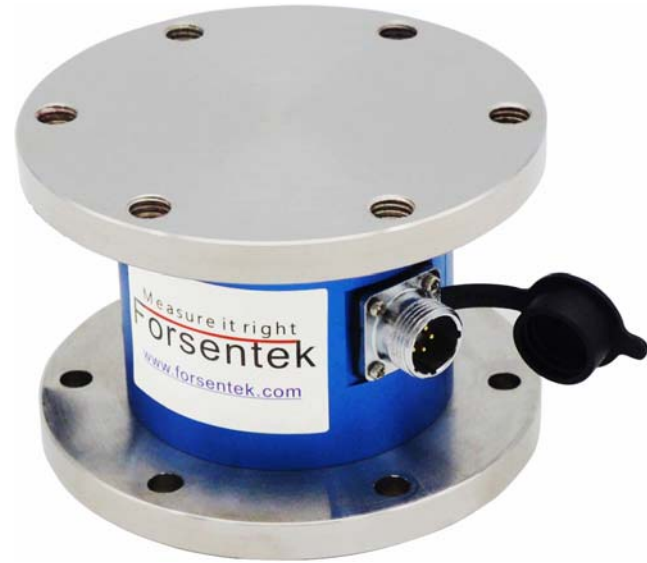
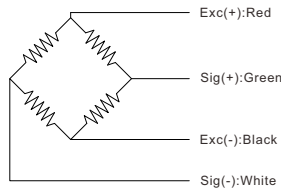
Dimensions in "mm"

Wiring Diagram of Model F3A



Wiring Diagram of Model F3B

X/Y/Z-axis



--- Specifications / 规格参数 ---

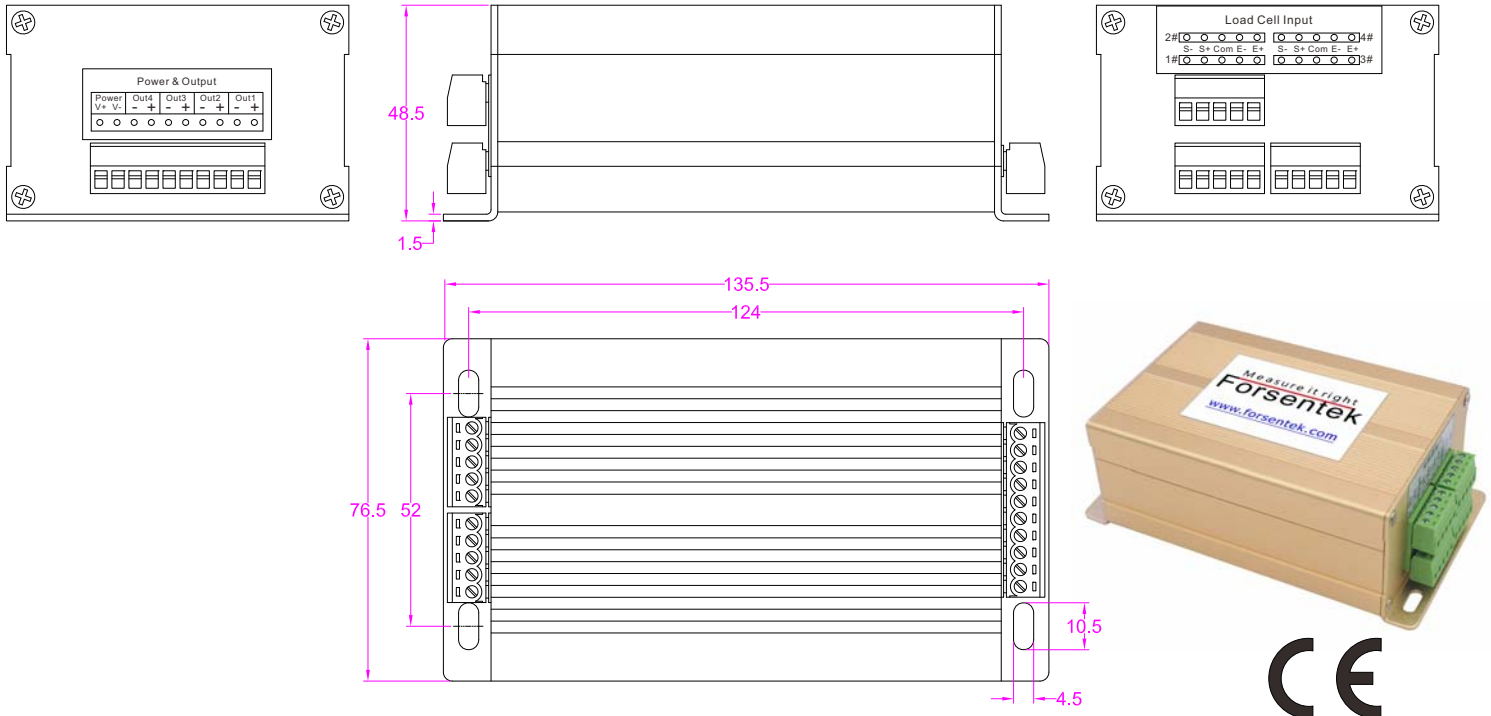
| Capacity/量程                                   | 50/100/200/300/500/1000 kg   |                               |                                 |
|---|--|-------------------------------|---------------------------------|
| Rated Output<br>额定输出                          | 1.0mV/V  | Compensated Temp.<br>温度补偿范围   | -10...+40°C                     |
| Excitation<br>激励电压                            | 3~15V  | Operating Temp.<br>工作温度范围     | -20...+60°C                     |
| Zero Balance<br>零点输出                          | ±0.05mV/V  | Temp. Shift Zero<br>零点温度漂移    | ±0.02% of R.O./°C               |
| Nonlinearity<br>非线性                           | ±0.5% of R.O.  | Temp. Shift Span<br>灵敏度温度漂移   | ±0.02% of R.O./°C               |
| Hysteresis<br>滞后                              | ±0.3% of R.O.  | Input Resistance<br>输入阻抗      | 180±30Ω                         |
| Nonrepeatability<br>非重复性                      | ±0.2% of R.O.  | Output Resistance<br>输出阻抗     | Fx/Fy: 385±30Ω<br>Fz: 700±100 Ω |
| Creep(5min)<br>蠕变(5min)                       | ±0.1% of R.O.  | Insulation Resistance<br>绝缘阻抗 | >2000MΩ(50V)                    |
| Crosstalk<br>串扰                               | <3% of R.O.  | Ingress Protection<br>防护等级    | IP50                            |
| Safe Overload<br>安全过载                         | 150% of F.S.   | Material of Element<br>弹性体材料  | Stainless steel<br>不锈钢          |
| Cable<br>导线                                   | <b>F3A:</b> Ø6*3000mm 8-core shielded cable with mating connector (x1)<br><b>F3B:</b> Ø5*3000mm 4-core shielded cable with mating connector (x3) |                               |                                 |
| R.O.=Rated Output/额定输出    F.S.=Full Scale/满量程 |  |                               |                                 |

• Subject to change without notice / 如有更改,不另行通知

| Ordering code   |                 | Capacity |        |
|-----------------|-----------------|----------|--------|
| F3A             | F3B             | Fx=Fy    | Fz     |
| F3A-50-50-100   | F3B-50-50-100   | 50kg     | 100kg  |
| F3A-100-100-200 | F3B-100-100-200 | 100kg    | 200kg  |
| F3A-200-200-300 | F3B-200-200-300 | 200kg    | 300kg  |
| F3A-300-300-500 | F3B-300-300-500 | 300kg    | 500kg  |
| F3A-500-500-1k  | F3B-500-500-1k  | 500kg    | 1000kg |

- F3A has only one cable outlet, (1x) 3m 8-core cable with mating connector is included.
- F3B has three cable outlets, (3x) 3m 4-core cable with mating connector is included.
- Output range of F3A/F3B is normally within -15mV...+15mV.
- Please refer to next pages if you need 0-5V/0-10V/4-20mA output.

# 3-Channel load cell amplifier



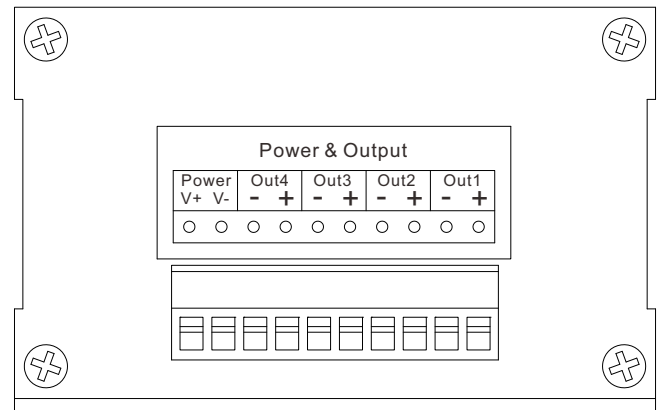
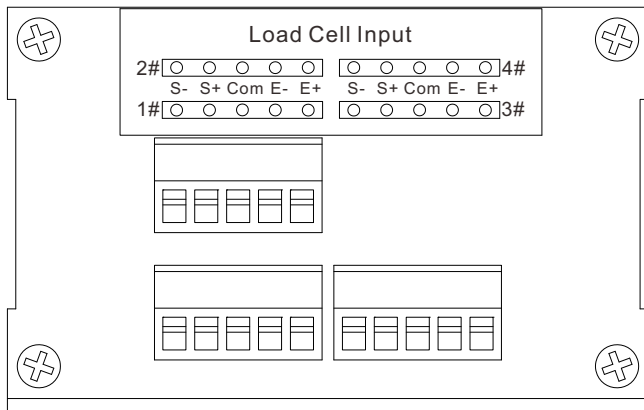
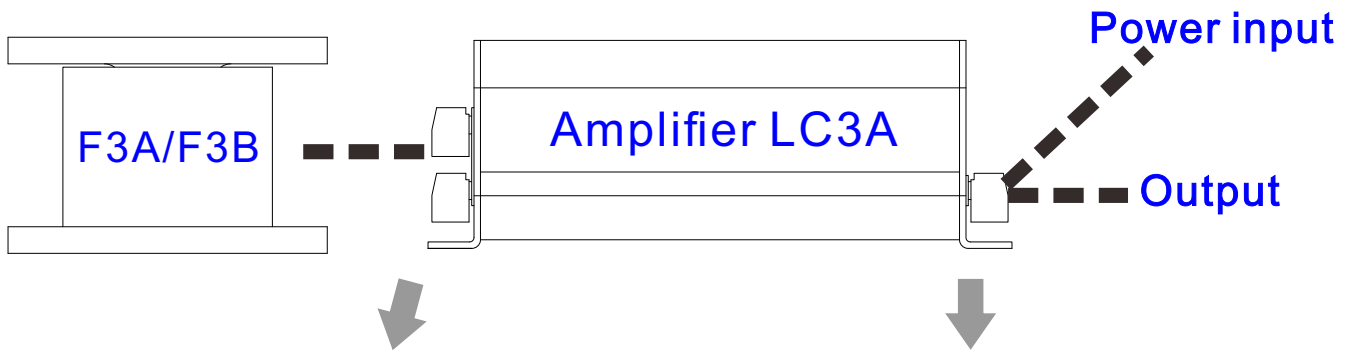
| Ordering Code                             |                  |   |                     |
|---|------------------|---|---------------------|
| For compression only<br>(Or tension only) |                  | For tension and compression<br>(Or clockwise and CCW) |                     |
| 24V Power supply                          | 12V Power supply | 24V Power supply                                      | 12V Power supply    |
| LC3A(0-3.3V)-24V                          | LC3A(0-3.3V)-12V | LC3A(0-1.5-3V)-24V                                    | LC3A(0-1.5-3V)-24V  |
| LC3A(0-5V)-24V                            | LC3A(0-5V)-12V   | LC3A(0-2.5-5V)-24V                                    | LC3A(0-2.5-5V)-12V  |
| LC3A(0-10V)-24V                           | LC3A(0-10V)-12V  | LC3A(0-5-10V)-24V                                     | LC3A(0-5-10V)-12V   |
| LC3A(0-20mA)-24V                          | LC3A(0-20mA)-12V | LC3A(-5-5V)-24V                                       | LC3A(-5-5V)-12V     |
| LC3A(4-20mA)-24V                          | LC3A(4-20mA)-12V | LC3A(-10-10V)-24V                                     | LC3A(-10-10V)-12V   |
| /   | /                | LC3A(4-12-20mA)-24V                                   | LC3A(4-12-20mA)-12V |
| Consult us for other outputs              |                  |   |                     |

--- Specifications / 规格参数 ---

| Function/功能                      | Turn mV signal into V or mA signal<br>将mV信号放大成V或mA信号 |
|----------------------------------|--|
| Accuracy/精度                      | 0.15%  |
| Power supply/供电电压                | 24V DC or 12V DC                                     |
| Excitation for load cell/传感器激励电压 | 5V DC  |
| Input signal range/输入信号范围        | 0.6~3.0mV/V  |
| Output signal/输出信号               | Refer to ordering code                               |
| Working Temp./工作温度               | -10...+60°C  |
| Material of enclosure/外壳材料       | Aluminum alloy/铝合金                                   |
| Ingress protection/防护等级          | IP40   |

• Subject to change without notice / 如有更改,不另行通知

Wiring example between F3A/F3B and amplifier LC3A



Wiring code

| F3A & LC3A                           |       |    |             |
|--------------------------------------|-------|----|-------------|
| 1# terminal connects with Fx channel |       |    |             |
| E+                                   | Red   | E- | White black |
| S+                                   | Blue  | S- | Brown       |
| 2# terminal connects with Fy channel |       |    |             |
| S+                                   | Gray  | S- | Gray black  |
| 3# terminal connects with Fz channel |       |    |             |
| S+                                   | Green | S- | Purple      |

| F3B & LC3A                           |       |    |       |
|--------------------------------------|-------|----|-------|
| 1# terminal connects with Fx channel |       |    |       |
| 2# terminal connects with Fy channel |       |    |       |
| 3# terminal connects with Fz channel |       |    |       |
| E+                                   | Red   | E- | Black |
| S+                                   | Green | S- | White |

| Power            |         |    |         |
|------------------|---------|----|---------|
| V+               | Power+  | V- | Power-  |
| Out1 @ Fx output |         |    |         |
| +                | Output+ | -  | Output- |
| Out2 @ Fy output |         |    |         |
| +                | Output+ | -  | Output- |
| Out3 @ Fz output |         |    |         |
| +                | Output+ | -  | Output- |

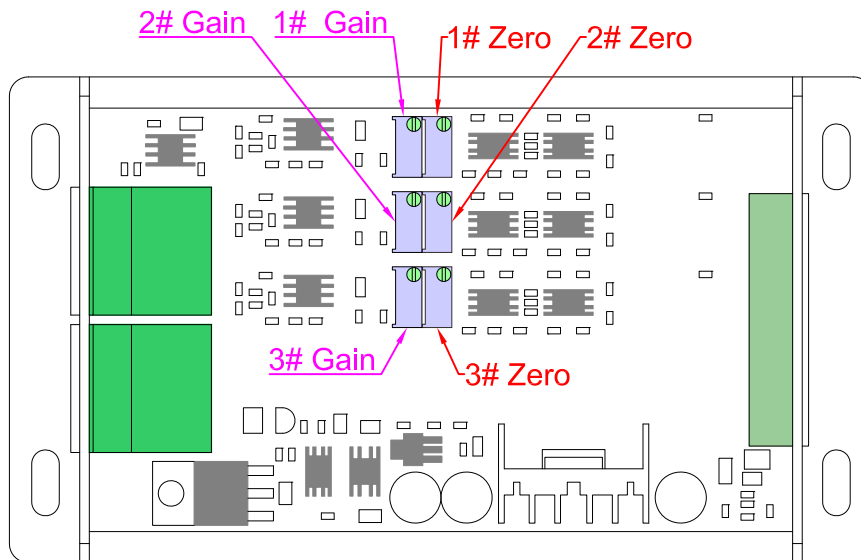
# Calibration instructions of F3A/F3B and LC3A

Before operation, clients need to prepare:

- 1-Power supply for LC3A
- 2-4 x 2-core cables for power input and signal output
- 3-Multimeter to measure the output signal from LC3A
- 4-Reference load and necessary tools for calibration
- 5-Screw drivers to open the cover plate of LC3A and adjust the potentiometers during calibration

## 1-Wiring(Refer to P-4/5)

## 2-Open the top cover plate of LC3A,you'll see below view:



## 3-Calibration of Fx channel

- 3.1-Measuring the output signal from Out1 of LC3A using a multimeter.
- 3.2-Applying 0 load to Fx direction,adjust potentiometer "1# Zero" to get desired output.
- 3.3-Applying reference load to Fx direction,adjust potentiometer "1# Gain" to get desired output.
- 3.4-Repeat step 3.2 and 3.3 for 2-3 times to get better result.

## 4-Calibration of Fy channel

- 4.1-Measuring the output signal from Out2 of LC3A using a multimeter.
- 4.2-Applying 0 load to Fy direction,adjust potentiometer "2# Zero" to get desired output.
- 4.3-Applying reference load to Fy direction,adjust potentiometer "2# Gain" to get desired output.
- 4.4-Repeat step 4.2 and 4.3 for 2-3 times to get better result.

## 5-Calibration of Fz channel

- 5.1-Measuring the output signal from Out3 of LC3A using a multimeter.
- 5.2-Applying 0 load to Fz direction,adjust potentiometer "3# Zero" to get desired output.
- 5.3-Applying reference load to Fz direction,adjust potentiometer "3# Gain" to get desired output.
- 5.4-Repeat step 5.2 and 5.3 for 2-3 times to get better result.

## 6-Install the top cover plate of LC3A