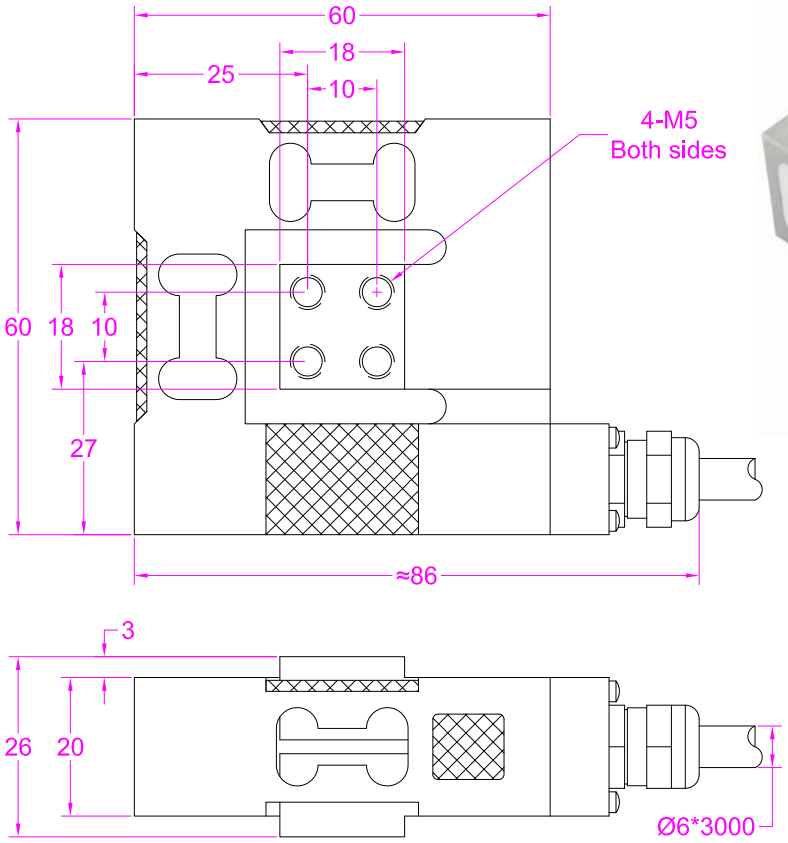
Measure it right
Forsentek

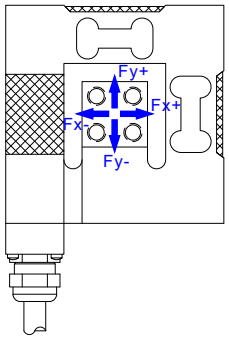
Weighing || Measuring || Controlling

Model:F3G

Dimensions in “mm”



Force direction



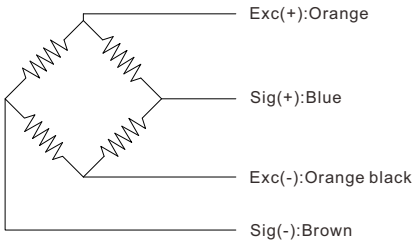
--- Specifications ---

Capacity	Fx/Fy/Fz--20/30/50/100/200/300/500/1k N		
Rated Output	1.0 mV/V	Crosstalk	<3% of F.S.
Excitation	3~15V	Operating Temp.	-10...+60°C
Zero Balance	±0.05mV/V	Temp. Shift Zero	±0.03% of R.O./°C
Nonlinearity	±0.2% of R.O.	Temp. Shift Span	±0.02% of R.O./°C
Hysteresis	±0.2% of R.O.	Input Resistance	385±50Ω
Nonrepeatability	±0.1% of R.O.	Output Resistance	350±10Ω
Creep(3min)	±0.2% of R.O.	Insulation Resistance	>2000MΩ(50V)
Safe Overload	150% of F.S.	Ingress Protection	IP62
Ultimate Overload	200% of F.S.	Material of Element	≤50N Aluminum ≥100N Stainless steel
Cable	Ø6*3000mm 12-pin shielded cable		
R.O.=Rated Output F.S.=Full Scale/			

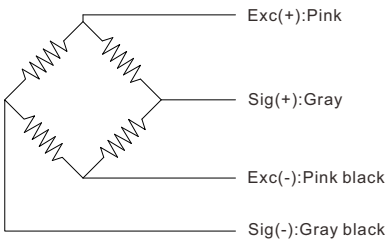
- Subject to change without notice

Wiring Diagram

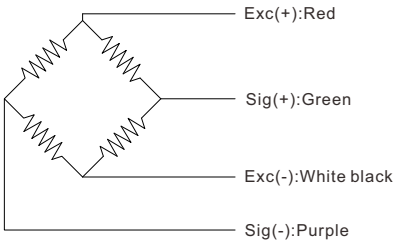
X-axis



Y-axis



Z-axis



Ordering code	Capacity		Material
	Fx=Fy	Fz	
F3G-20N	20N	20N	Aluminum alloy
F3G-20-20-30		30N	
F3G-30N	30N	30N	
F3G-30-30-50		50N	
F3G-50N	50N	50N	
F3G-50-50-100		100N	
F3G-100N	100N	100N	Stainless steel
F3G-100-100-200		200N	
F3G-200N	200N	200N	
F3G-200-200-300		300N	
F3G-300N	300N	300N	
F3G-300-300-500		500N	
F3G-500N	500N	500N	
F3G-500-500-1k		1kN	
F3G-1kN	1kN	1kN	

■ Consult us for other capacities

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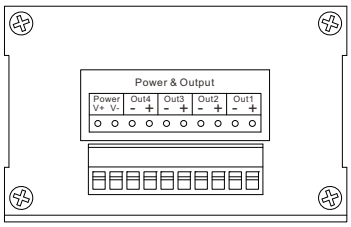
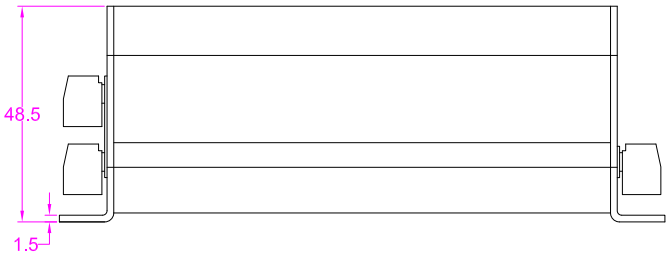
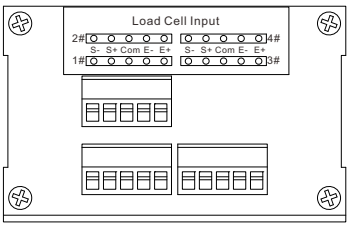
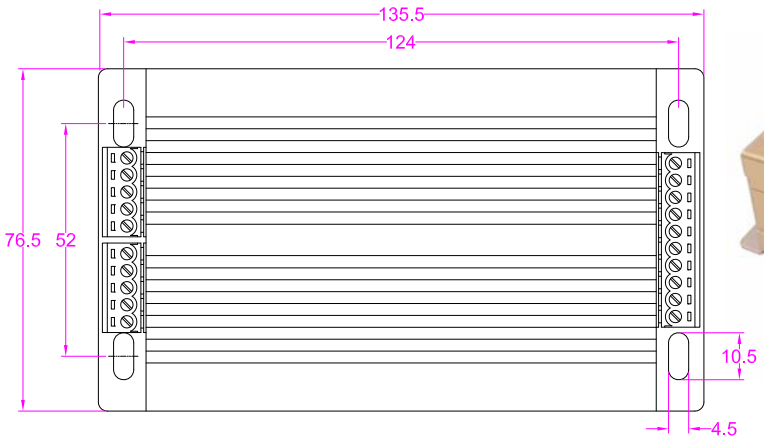
3-Channel load cell amplifier









CE

Ordering Code

For compression only (Or tension only)		For tension and compression (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 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

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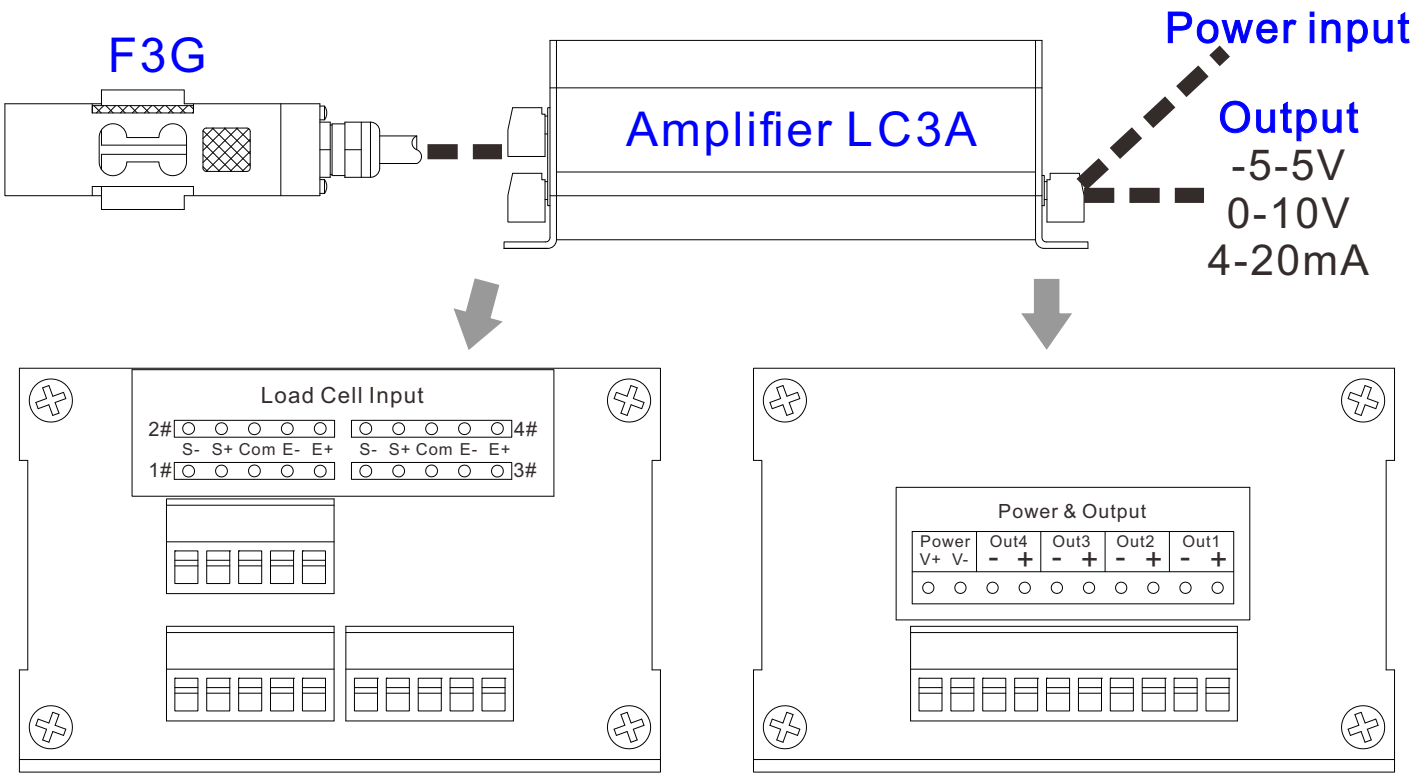
Wiring example between F3G and amplifier LC3A



Wiring code

1# terminal connects with Fx channel			
E+	Orange	E-	Orange black
S+	Blue	S-	Brown
2# terminal connects with Fy channel			
E+	Pink	E-	Pink black
S+	Gray	S-	Gray black
3# terminal connects with Fz channel			
E+	Red	E-	White black
S+	Green	S-	Purple

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

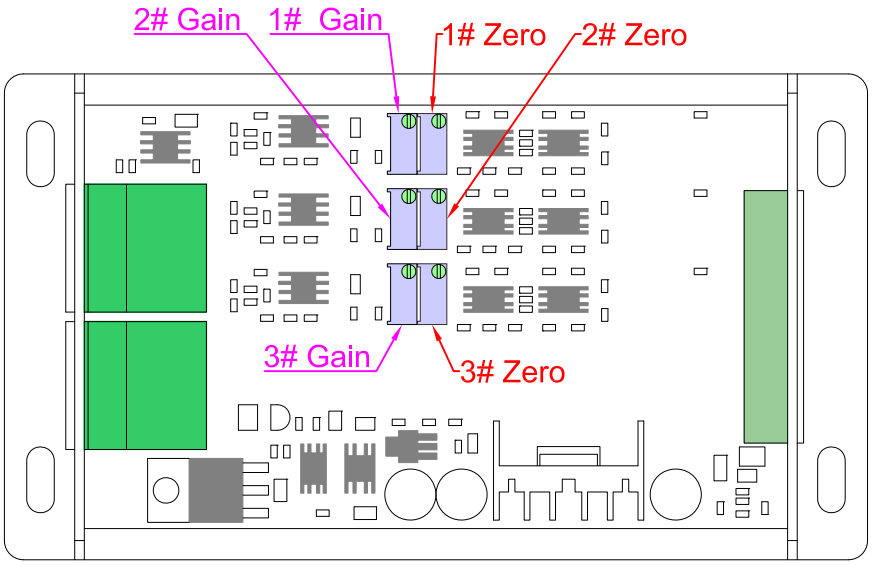
Calibration instructions of F3G and LC3A

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