SensorsX
SX-FLANB Series

Load Cell

Force & Weighing | Aluminum Load Cell



1 – 100 kg Rated Capacity (2.2 – 220 lb)	**≤ ±0.02% F.S.** Non-Linearity / Hysteresis / Repeatability	**2.0 mV/V ±10%** Output Sensitivity
IP65 Ingress Protection (IEC 60529)	**−20 to +60 °C** Operating Temp. (−4 to +140 °F)	**5 – 12 V DC** Recommended Excitation (max 15 V DC)

■ PRODUCT OVERVIEW

The SX-FLANB Series is a compact aluminum alloy load cell for small electronic platform scales, portable weighing scales and other electronic weighing systems. It offers good corrosion resistance and long-term stability, with two body sizes available. The smaller version is specified for rated capacities up to 10 kg. The load cell has a nominal output sensitivity of 2.0 mV/V and a recommended bridge excitation voltage of 5–12 V DC. Optional transmitter modules provide conditioned analog or digital outputs, depending on the selected configuration.



■ KEY FEATURES

◆ Aluminum Alloy Construction	◆ Good Corrosion Resistance
◆ Compact Design for Easy Installation	◆ Long-Term Stability

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■ TYPICAL APPLICATIONS

Application Fields

- Small Electronic Platform Scales
- Portable Weighing Scales
- Electronic Weighing Instruments

■ PERFORMANCE SPECIFICATIONS

Measurement	
Rated Capacity	1, 3, 5, 10, 20 … 50 … 100 kg (2.2, 6.6, 11, 22, 44 … 110 … 220 lb)
Output Sensitivity	2.0 mV/V ±10%
Accuracy	
Non-Linearity	≤ ±0.02% F.S.
Hysteresis	≤ ±0.02% F.S.
Repeatability	≤ ±0.02% F.S.
Creep	±0.02% F.S. / 30 min
Temperature Sensitivity Drift	±0.02% F.S. / 10 °C (±0.02% F.S. / 18 °F)
Zero Point Temperature Drift	±0.02% F.S. / 10 °C (±0.02% F.S. / 18 °F)
Zero Output	< ±1% F.S.
Overload	
Safe Overload	150% F.S.
Ultimate Overload	300% F.S.

■ ELECTRICAL SPECIFICATIONS

Excitation	
Recommended Excitation Voltage	5–12 V DC
Maximum Excitation Voltage	15 V DC
Bridge	
Input Resistance	400 ± 20 Ω
Output Resistance	350 ± 5 Ω
Insulation Resistance	≥ 5,000 MΩ
Output Signal	
Signal Output Options	Optional transmitter modules are available for signal conditioning, with output options including 4–20 mA, 0–5 V, 0–10 V, PROFIBUS, Modbus, CANopen, and RS-485.
Electrical Connection	
Cable	Direct cable outlet

Note: These excitation ratings apply to the mV/V-output load cell. Supply requirements for configurations with a transmitter depend on the selected transmitter module.

■ ENVIRONMENTAL SPECIFICATIONS

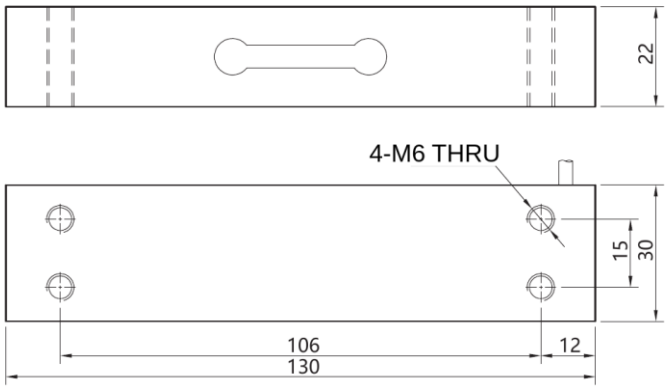
Temperature	
Operating Temperature	−20 to +60 °C (−4 to +140 °F)
Mechanical & Environmental	
Ingress Protection	IP65 (IEC 60529)
Housing	
Material	Aluminum alloy

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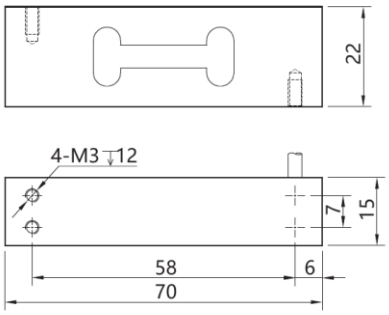
■ MECHANICAL DIMENSIONS

Dimensions — Size Version A (left) and Size Version B (right)

Size Version A



Size Version B



Outline drawings (unit: mm)

Key Dimensions — mm (in)

Size Version A	
Length × Width × Height	130 × 30 × 22 mm (5.12 × 1.18 × 0.87 in)
Mounting Holes	4 × M6 through; 106 mm (4.17 in) × 15 mm (0.59 in) pattern, 12 mm (0.47 in) from end
Size Version B (capacity ≤ 10 kg)	
Length × Width × Height	70 × 15 × 22 mm (2.76 × 0.59 × 0.87 in)
Mounting Holes	4 × M3, 12 mm (0.47 in) deep; 58 mm (2.28 in) × 7 mm (0.28 in) pattern, 6 mm (0.24 in) from end

Note: All dimensions are in millimeters, with inch equivalents in parentheses, unless otherwise specified. Mounting threads are metric (M6 and M3).

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■ ORDERING INFORMATION

Complete model number example: SX-FLANB-B10kg24I0L

Size Version	
A	Large size
B	Small size (capacity ≤ 10 kg)
Measurement Range	
1kg	1 kg (2.2 lb)
3kg	3 kg (6.6 lb)
5kg	5 kg (11 lb)
10kg	10 kg (22 lb)
20kg	20 kg (44 lb)
50kg	50 kg (110 lb)
100kg	100 kg (220 lb)
Power Supply	
05	5 V DC
10	10 V DC
12	12 V DC
24	24 V DC
Output	
I	4–20 mA
V1	0–5 V
V2	0–10 V
V3	0–±5 V
V4	0–±10 V
RS	RS-485
L	2.0 mV/V ±10%
Electrical Connection	
0	Cable outlet
Mounting	
L	Bolt mounting
Customization Options	
D	Custom configuration — specify requirements when ordering

Example: SX-FLANB-B10kg24I0LD — SX-FLANB Series, Size Version B, 10 kg rated capacity, 24 V DC supply, 4–20 mA output, integral cable, bolt mounting, and custom configuration.

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