

Low Profile Pancake Type Load Cell (LCF450)



500 to 10,000 Lbf (2225 to 44500 Newtons) capacity

Aluminum or Stainless Steel Construction

US and Metric Threads

6-pin Bendix Receptacle

For use with DI-5B38-05 or DI-8B38-05 amplifiers



DATAQ Instruments has partnered with sensor manufacturer Futek to offer a variety of load cells at factory-direct prices. These load cells have been specifically chosen for compatibility with our popular line of data loggers and data acquisition systems that support 5B and 8B amplifier modules. We've done the legwork to ensure compatibility, and a complete load cell-to-instrument solution.

Model LCF450 is a Pancake Load Cell designed for both tension and compression applications. The flexure has eight bolt-down holes along its outer diameter for easy mounting. Capacities range from 500 to 10,000 lbf. (2225 to 44500 Newtons) maximum.

Features

Rugged Construction

Available in anodized 2024-T4 Aluminum construction or Stainless Steel 17-4PH construction.

Easy Installation

The LCF450 flexure has eight bolt-down holes along its outer diameter for easy mounting. A 6-pin Bendix receptacle provides a quick electrical connection.

US and Metric Threads

The LCF450 is available with either a 5/8-18 thread or a M16x2 thread.

Compatibility

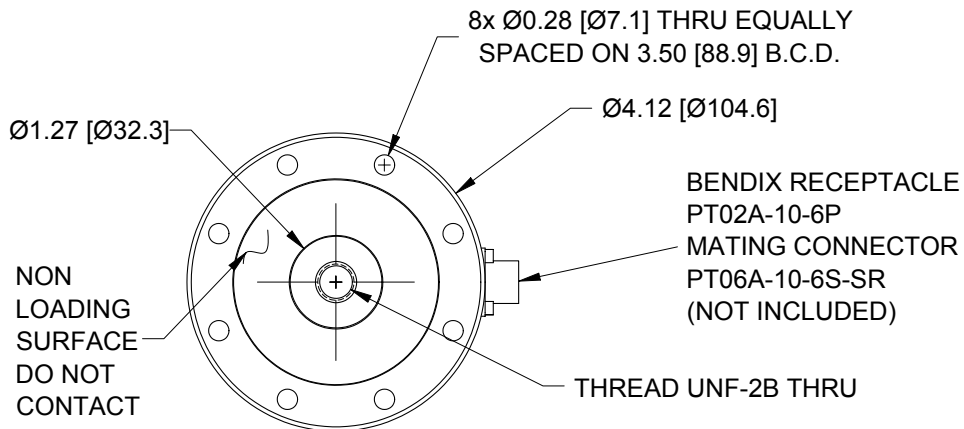
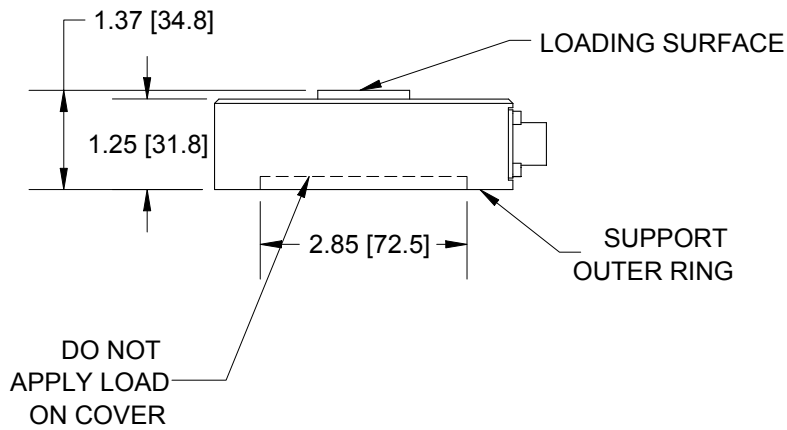
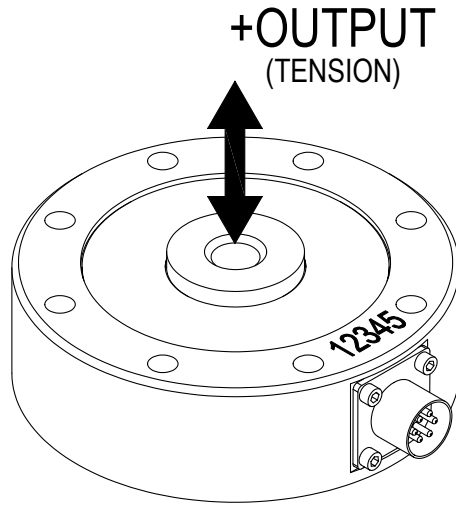
The LCF450 is compatible with strain gage input modules DI-5B38-05 and DI-8B38-05. Install the signal conditioning module into one of our data acquisition/data logger systems for a complete measurement solution. Use the DI-8B38-02 or the DI-5B38-02 for limited dynamic range applications.

A Complete Measurement Solution

Install the Signal Conditioning Module (DI-8B or DI-5B module) into your compatible data acquisition/data logger system. Both excitation and calibrated gain is provided for the sensor.

Signal Conditioning Module	Data Logger / Data Acquisition System	Sensor
DI-5B38-05 or DI-5B38-02	DI-75B	LCF450
	DI-715B	
	DI-785	
	DI-195B	
DI-8B38-05 or DI-8B38-02	DI-78B	
	DI-718B	
	DI-718Bx	
	DI-788	

Dimensional Drawings and Wiring Code



Wiring Code

+Excitation	-Excitation	+Signal	-Signal
RED PIN 'A'	BLACK PIN 'B'	GREEN PIN 'C'	WHITE PIN 'D'

Specifications

Rated Output:	2mV/V nom.	Temperature Shift Zero:	±0.001% of R.O./°F (±0.0018% of R.O./°C)
Safe Overload:	150% R.O.	Temperature Shift Span:	±0.002% of Load/°F (±0.0036% of Load/°C)
Zero Balance:	±1% of R.O.	Compensated Temperature:	60°F to 160°F (15°C to 72°C)
Excitation (VDC or VAC):	20 Max	Operating Temperature:	-60°F to 200°F (-50°C to 93°C)
Bridge Resistance:	700 Ω	Weight:	Aluminum: 1.3 lb (0.6 kg); Stainless Steel: 3.5 lb (1.6 kg)
Nonlinearity:	±0.1% of R.O.	Deflection:	0.002 to 0.005 (0.05 to 0.13) nom.
Hysteresis:	±0.2% of R.O.	Connector:	6 Pin Bendix Receptacle
Nonrepeatability:	±0.2% of R.O.	Compatible Signal Conditioning Modules:	DI-5B38-05 or DI-5B38-02 DI-8B38-05 or DI-8B38-02
Creep:	±0.2% of Load		

Ordering Guide

Capacity Lbf (Newtons)	Material	Thread	Order Number
500 (2225)	2024-T4 Aluminum	5/8-18	FSH00128
		M16x2	FSH00132
	17-4PH Stainless Steel	5/8-18	FSH00143
1000 (4450)	2024-T4 Aluminum	5/8-18	FSH00129
		M16x2	FSH00133
	17-4PH Stainless Steel	5/8-18	FSH00145
2000 (8900)	2024-T4 Aluminum	5/8-18	FSH00130
		M16x2	FSH00134
3000 (13350)	17-4PH Stainless Steel	5/8-18	FSH00135
		M16x2	FSH00139
5000 (22250)	17-4PH Stainless Steel	5/8-18	FSH00136
		M16x2	FSH00140
10000 (44500)	17-4PH Stainless Steel	5/8-18	FSH00137
		M16x2	FSH00141
		5/8-18	FSH00138
		M16x2	FSH00142

Accessories

Description	Order Number	Description	Order Number
15 foot Cable with 6-pin Bendix connector.	FSH01757	Load button with 5/8-18 male thread	MCP00956
30 foot Cable with 6-pin Bendix connector.	FSH02434	Load button with M16x2 male thread	MCP00966
100 foot Cable with 6-pin Bendix connector.	FSH01886	NIST Calibration Certificates	Contact DATAQ
6-pin Bendix connector	GOD000046		



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