TYPE: UF1



UF1 Low Range Isometric Force Sensor

Features

- Ranges: 25 to 1500g
- Low deflection
- High output sensitivity
- High overload range
- Versatile signal connection method
- Versatile mounting arrangement

Typical Applications

- Isometric force measurement
- Muscle contraction measurement
- Textile tension measurement
- Torque reaction measurement

AVAILABLE TO BUY ONLINE
Visit our website www.lcmsystems.com
(In-stock items usually ship within 48 hours)

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Description

The LCM Systems UF1 series of force sensors have been widely used in many applications for more than 40 years. The UF1 has proved to be the first choice for many applications including muscular and membrane movement monitoring, yarn and fabric tension control, fluid viscosity measurement and even the force induced in butterfly wings during flight.

There are many other applications that the UF1 has been used in. It is most popular in applications where there is a need to measure small forces, with a good level of accuracy, minimal deflection and when a flexible mounting arrangement is required.

The UF1 can be supplied on its own or combined with any of LCM Systems wide range of instrumentation products to provide either a simple or more complex monitoring or control package.

Specification

Range (g)	25, 55, 110, 220, 450, 1000, 1500
Maximum overload range	2500g for all ranges
Output sensitivity	4mV/V nominally
Zero offset	<±2% of rated load
Accuracy	<±0.5% of rated load
Repeatability	<±0.1% of rated load
Excitation voltage	5vdc recommended, 10vdc maximum
Bridge resistance	750Ω nominally (25, 55, 450g) 1000Ω nominally (110, 220, 1000, 1500g)
Insulation resistance	>100MΩ @ 50vdc
Operating temperature range	-40 to +80°C
Compensated temperature range	-10 to +60°C
Zero temperature coefficient	<±0.05% of rated load/°C
Span temperature coefficient	<±0.05% of rated load/°C
Environmental protection level	IP51
Deflection	<±0.03mm
Connection type	via 4 PTFE insulation solder terminals
Wiring connections	+ signal: Pin A + excitation: Pin B - signal: Pin C - excitation: Pin D

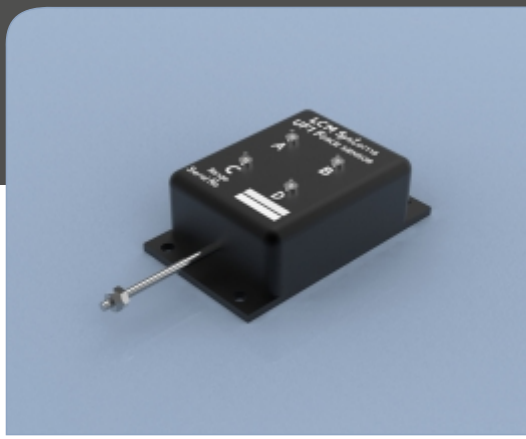
Available Options

- Higher capacities available (refer to STA-7 data sheet)

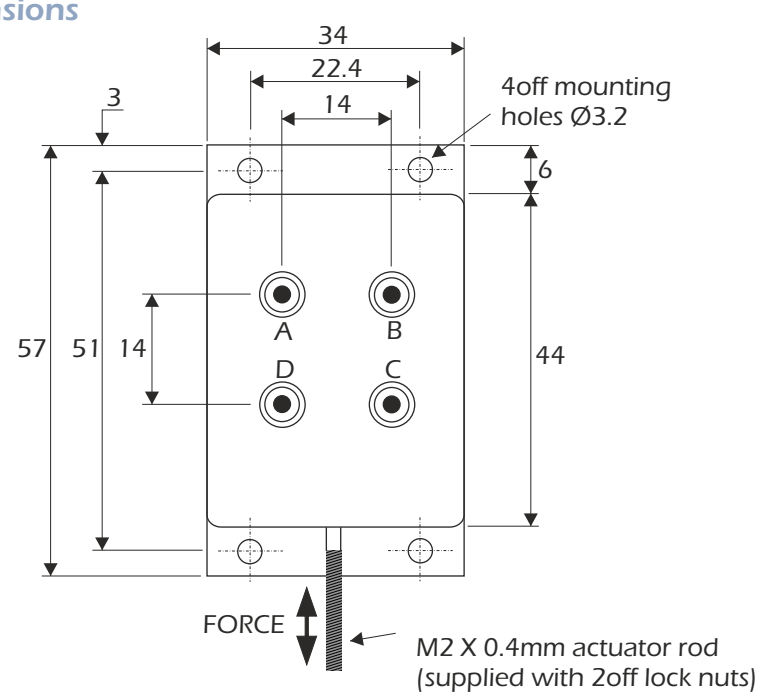
LCM SYSTEMS
Solutions in Load Cell Technology

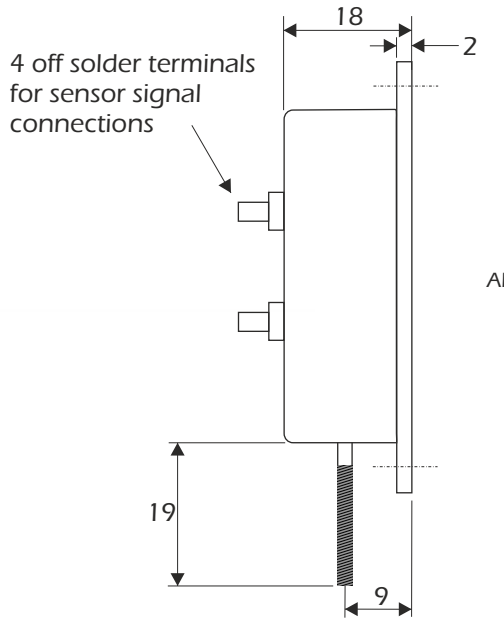
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UF1 Low Range Isometric Force Sensor



Dimensions





All dimensions are in mm

Rating (g)	Part Number	Weight (g)	Resolution (g)
25	UF1A0000	85	0.05
55	UF1B0000	85	0.1
110	UF1C0000	76	0.2
220	UF1D0000	85	0.5
450	UF1E0000	85	1
1000	UF1G0000	85	2
1500	UF1J0000	74	2

Note: default calibration of these load cells will be in tension. If you require calibration in compression or both tension & compression, please state at time of order (additional charges may apply).

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Due to continual product development, LCM Systems Ltd reserves the right to alter product specifications without prior notice.

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