

Description

The LCM Systems UF1 series force sensors from the range of Pioden Transducers has been widely used in many applications for more than 40 years.

The UF1 has proved 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 our customers need to measure small forces, with a good level of accuracy, minimal deflection and with a flexible mounting arrangement.

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

Typical Applications

- Isometric Force Measurement
- Muscle Contraction Measurement
- Textile Tension Measurement
- Torque Reaction Measurement

UF1 Low Range Isometric Force Sensor



Features

- Ranges 25g (1oz) to 1500g (54oz)
- Low Deflection
- High Output Sensitivity
- High Overload Range
- Versatile signal connection method
- Versatile Mounting Arrangement

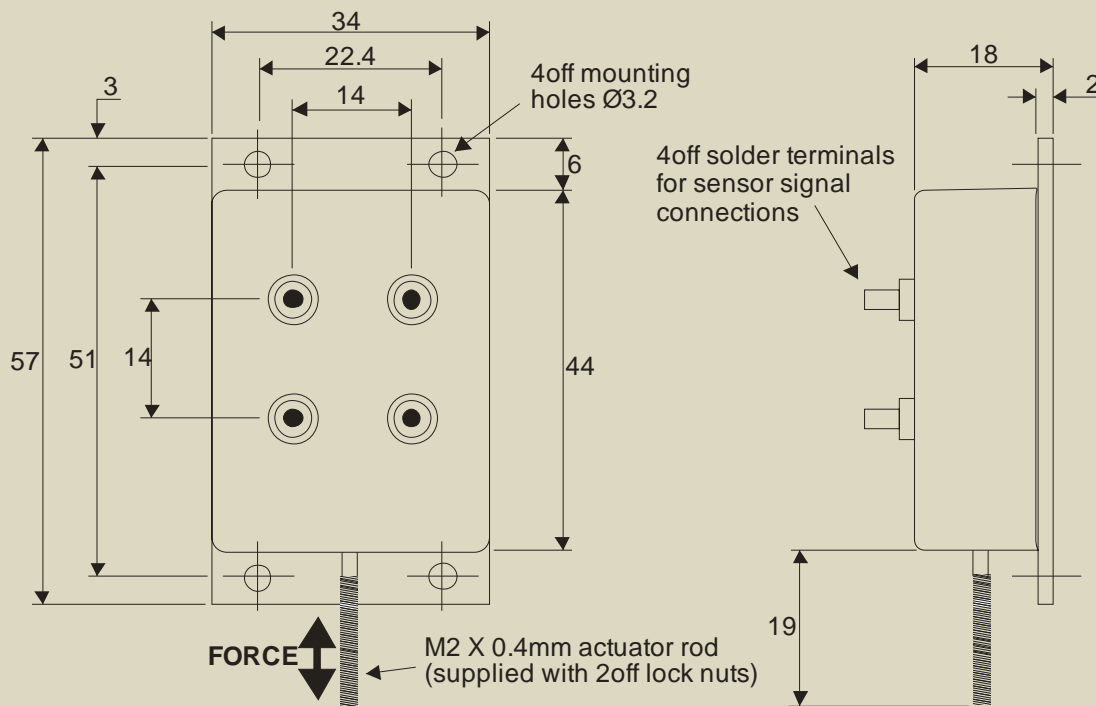
Low Range Isometric Force Sensor

Specification

Range (FSO)	25g, 55g, 110g, 220g, 450g, 1000g, 1500g 1oz, 2oz, 4oz, 8oz, 18oz, 36oz, 54oz
Maximum Overload Range	2500g for all ranges
Output Sensitivity	4mV/V nominally
Zero Offset	< ±2% FSO
Accuracy	< ±0.3% FSO
Repeatability	< ±0.1% FSO
Excitation Voltage	10vdc maximum
Bridge Resistance	25g, 55g, 450g: nominally 725Ω 110g, 220g, 1000g, 1500g: nominally 1000Ω
Insulation Resistance	> 100MΩ at 50vdc
Operating Temperature Range	-40°C to +80°C
Compensated Temperature Range	+10°C to +60°C
Zero Temperature Coefficient	< ±0.05% FSO/°C
Span Temperature Coefficient	< ±0.05% FSO/°C
Environmental Protection Level	IP51
Deflection	< ±0.03mm
Connection Type	Via 4off PTFE insulated solder terminals

Mechanical Dimensions

All dimensions in millimeters



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

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TYPE: UF1