

## MLT0402 Force Transducer (2g)

*Transducer Series*

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### Description

The MLT0402 is a sensitive isometric force transducer suitable for measuring small forces up to 2 g. The transducer is suitable for connection to ADInstruments Bridge Amps.



**Note:** Plates protect the arm of the transducer. Remove these before using. Place the transducer on a flat surface and unscrew and remove the top plate. Then loosen the screws on the bottom plate to allow the plate to fall away before removing the screws.

This is a very sensitive transducer and can be easily damaged by applying small but excessive forces to the arm. The plates should be re-attached before moving or storing the transducers. To re-attach plates, place the transducer on a flat surface and attach the bottom plate. Then screw one side of the top plate until it touches the arm. Then screw the other side of the plate until the top and bottom plates are parallel. Monitor output to make sure that it remains close to 0 mV during reattachment. Do not over tighten.

### Operation

Mount the transducer by inserting the support rod through the hole of a micro-positioner. Loosen the grub screw at the bottom rear of the transducer to rotate the support rod to suit the orientation of the micro-positioner. Re-tighten the grub screw firmly before use.

Tie a silk thread to one end of the isolated tissue. Tie the other end of the thread through the hole on the arm of the transducer. The load should be in the direction of the arrows.

The transducer responds equally to either tension or compression loading. Use the micro-positioner to adjust the tension in the silk thread to provide the desired amount of pre-load tension on the tissue.

### Application

The MLT0402 Force Transducer (2 g) is ideal for isolated tissue studies where forces of up to 2 g are expected. The MLT0402 Force Transducer has been designed for operation with our range of organ bath models.

*NOTE: Support rod orientation differs between PanLab and Radnoti Organ Bath micropositioners.*

## Caution

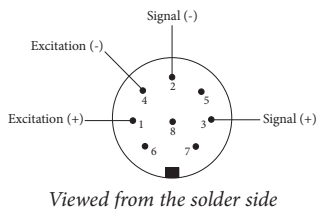
Read "Statement of Intended Use" on our website or in "Getting Started with PowerLab" before use.

## Specifications

Non-linearity:	0.3% Rated Output (~6 mg)
Hysteresis:	0.3% Rated Output (~6 mg)
Repeatability:	0.3% Rated Output (~6 mg)
Temperature effect on zero balance:	0.5% Rated Output (~10 mg)/10°C
Temperature effect on output:	0.5% LOAD/10°C
Resistance:	270 $\Omega$
Sensitivity:	325 $\mu\text{V}/\text{V}/\text{g}$
Displacement:	$\pm 0.4$ mm
Resonant F (typ):	60 Hz
Factory set excitation voltage:	3 V
Cable length:	2 m
Body (length x $\phi$ ):	68 x 50 x 25
Support rod (length x $\phi$ ):	165 x 6 mm (6.3" x 0.24")
Weight (including cable):	300 g
Connector:	8-pin DIN

All specifications were tested at the time of printing and are subject to change.

## Wiring Diagram



## Ordering Information:

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For use with:

ADInstruments Bridge Amps ONLY