Isotonic Transducers

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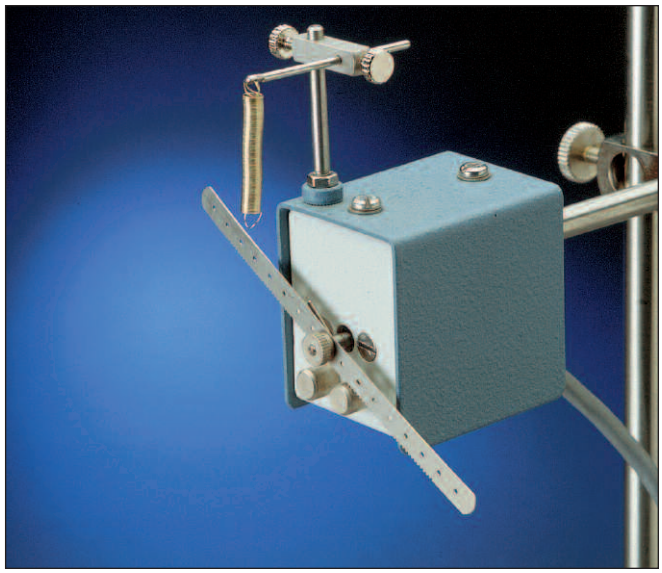
Isotonic Research Transducer



Parameters Measured

- Changes in muscle length under a constant load

Components included

- Transducer
- Specifications Sheet
- Callibration Certificate

TRO Isotonic Research Transducer

The TRO Isotonic Transducer measures displacements with pre-adjusted loads (position transducer).

Isotonic transducers are classically used for measuring the contraction amplitude of isolated muscles in Organ Bath studies, i.e. the changes in tissue length observed under a constant load. These transducers are preferably used with smooth muscle preparations characterized by relatively slow contractions (ileum, vas deferens, lung strips, esophagus, urinary bladder, etc.).

Specifications

Range	5 mg to 5 g
Resolution	5 mg
Displacement	±15° (48 mm)
Sensitivity (full range)	300 mV
Excitations	5-10V DC
Element Resistance	1000 W
Counterweight Graduation	Five 1 g div. with 250 mg subdiv.

Order #	Model	Product
PY2 76-0142	TRO015	Isotonic Research Transducer for ISO510 Amplifier
PY2 76-0423	TRO015AD	Isotonic Research Transducer for ADInstruments Bridge Amp
PY2 76-0424	TRO015HS	Isotonic Research Transducer for PLUGSYS TAM Amplifier

Harvard Apparatus Teaching Isotonic Transducers

This Harvard Apparatus Teaching Isotonic Transducer is exceptionally sensitive and stable, requiring a minimum of force to produce a substantial electrical signal. It uses precision ball bearings and a graduated optical density vane that moves between an infrared source and a sensor.

The notched, pierced input lever is 90 mm (3-1/2 in) long for easy connection to muscle tissue. A spring and anchor post are supplied for converting the unit into a Transducer capable of recording frog/heart muscle tension for auxotonic applications.

This Transducer has a 2 m (6.6 ft) shielded integral cable which terminates in a specific connector for use with one of the amplifiers/signal conditioners below.

Specifications

Output	50 mV/angular degree rotation
Angle of Rotation	±25° above and below horizontal axis
Excitation Voltage	-12, 0, +12 VDC
Breakaway Torque	0.05 g/cm
Dimensions:	
Housing, H x W x D	45 x 35 x 45 mm (1.75 x 1.5 x 1.75 in)
Mounting Rod, OD x L	6.5 x 60 mm (0.25 x 2.5 in)

Order #	Product
PY2 50-6360	Harvard Apparatus Teaching Isotonic Transducer for use with PY2 53-6132 Harvard Apparatus Amplifier, PY2 50-7970 and PY2 50-7996 Freestanding Transducer Interfaces, and PY2 50-8861 Modular Transducer Interface