



Isotonic Transducer

Cat. No. 7006

General

The 7006 Isotonic Transducer basically consists of a car-bon-fibre lever arm which pivots on the shaft of a Hall-effect rotary motion transducer of original design. The arm is balanced by an adjustable counterweight of tungsten alloy.

It is possible to carry out experiments on extremely small muscle fibres, which can be held under a tension of as little as 100-200 mg so that minimal force and consequent displacement alterations can be recorded.

The lever arm balancing is provided by a tungsten alloy counterweight which can be shifted by turning its knurled section.

This load is monitored by the counterweight rim moving along a scale calibrated in grams.



ISOMETRIC TRANSDUCERS
(see separate leaflet)

Main Features

- Ugo Basile Isotonic Transducer is specially designed for investigating isotonic contractions in isolated organs, particularly smooth muscle, amphibian hearts, etc.
- An Isotonic Transducer is basically a displacement meter under constant load, whereas an isometric transducer measures changes in force at constant length

Isotonic Transducer Specifications

Voltage Output	300 μ V per mm displacement of lever arm tip
Linearity	$\pm 2\%$ to $\pm 15^\circ$ rotation
Excitation Voltage	6 \div 15 V
Excitation Current	20 mA (constant in the range 6 \div 15 V)
Operating Range	$\pm 15^\circ$ about the centre (zero)
Lever Arm Length	10 cm
Lever Arm Travel	6 cm
Breakaway Torque	less than 0.1 gcm
Moment of Inertia	35 gcm ²
Overall Dimensions	16.5 x 5.5 x 11 cm (excl. removable handle)
Weight	0.35 Kg
Shipping Weight	1.60 Kg

Compatibility

The Isometric & Isotonic Transducers are normally supplied with a connector designed for UGO BASILE Unirecord 7050 & Gemini 7070 (see note below).

If the customer wishes to make use of other recording apparatus, the transducers can be supplied with appropriate connectors on request.

An optional DC Power Supply (single or multiple channel) is available for connecting the Isometric Transducer to amplifier/recording systems where excitation voltage is not available at the input connector. Quotations on request.

IMPORTANT NOTE :

Before ordering, check the connection compatibility of your amplifier/recording system.

The grey plastic connector mounted on the Transducers manufactured before 1990 (RTG 18) has been replaced by a cylindrical, all metal model of ECTA.

Adaptors are available..

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