

**Aumictech**

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Data Sheet

August 13, 2026

BURLEIGH

Burleigh IW-700 Inchworm Motor

Burleigh IW-700 Inchworm Motor, Offers precise incremental linear motion with nanometer resolution. Ideal for micro-positioning in fiber optic alignment and interferometry. Compact, energy-efficient, and programmable for automation.



MODEL

Burleigh IW-700

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

IW-700

LISTING

<https://aumictechlabs.com/products/iw-700-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

Burleigh IW-700 Inchworm Motor, The Burleigh IW-700 Inchworm Motor is a precision piezoelectric motor engineered for ultra-fine positioning and incremental motion control. It has nanometer-scale steps with high repeatability, making it ideal for applications in optical alignment, microscopy, and nanotechnology. The motor operates silently with no mechanical backlash, providing smooth, controlled motion in multiple axes. Its compact and rugged design enables easy installation in tight spaces and harsh environments. The IW-700 interfaces with standard controllers and supports closed-loop feedback for enhanced accuracy. This motor is a critical component for precision positioning tasks requiring exceptional resolution and stability.

Features & description

From manufacturer datasheet

Features

- Mechanical resolution ~4 nm over full travel • Max speed 1.5 mm/s • Travel lengths 6, 25, or 50 mm • Non-rotating shaft; forward/reverse limit switches • Open-loop (IW-710 adds 0.5 μm integral encoder)
- Standard ~6 ft cable; extensions to 50 ft max with 7011 cables

Applications

- Nanopositioning and precision linear translation • Vacuum / ambient stage actuation with TS-100 class stages • Optics alignment and microscopy positioning • Open-loop fine motion where encoder feedback is optional

IW700 Characteristics / Specifications

PARAMETER	VALUE
Model	IW-700
Manufacturer	Burleigh (EXFO / Thorlabs lineage)
Instrument Type	Inchworm Linear Piezoelectric Motor
Series	IW-700 / IW-710
Mechanical Resolution	approximately 4 nm
Maximum Speed	1.5 mm/s
Standard Travel Options	6 mm; 25 mm; 50 mm
Shaft	Non-rotating
Limit Switches	Forward and reverse
Control Mode Base	Open-loop
Encoder Option Family	IW-710 integral 0.5 μm optical encoder
Compatible Controllers	Burleigh 6000; 7000; 7010 series
Alternate Controllers	CE-1000 / CE-2000 with restrictions
Direct Shaft Load Class	light loads <100 g recommended
Lateral Runout Standard	$\pm 1 \mu\text{m}$ class
Lateral Stability Option	$< \pm 0.2 \mu\text{m}$ class
Stage Pairing	Burleigh TS-100 translation stages for heavier loads
Cable Length Standard	6 feet
Extension Cable Model	7011; total length ≤ 50 feet
Mounting	Mid-element mount; shaft moves left/right
Step Character	$\sim 2 \mu\text{m}$ per full center-element extension class Notes Specs from Burleigh IW-700/710 Inchworm Motor documentation and Artisan/EXFO nanopositioning notes. Confirm travel length and controller match before drive.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Instrument Type	Inchworm Linear Piezoelectric Motor
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Standard Travel Options	6 mm; 25 mm; 50 mm
Shaft	Non-rotating
Limit Switches	Forward and reverse
Control Mode Base	Open-loop
Encoder Option Family	IW-710 integral 0.5 µm optical encoder
Compatible Controllers	Burleigh 6000; 7000; 7010 series
Alternate Controllers	CE-1000 / CE-2000 with restrictions
Direct Shaft Load Class	light loads <100 g recommended
Lateral Runout Standard	±1 µm class
Lateral Stability Option	<±0.2 µm class
Stage Pairing	Burleigh TS-100 translation stages for heavier loads
Cable Length Standard	6 feet
Extension Cable Model	7011; total length ≤50 feet
Mounting	Mid-element mount; shaft moves left/right
Step Character	~2 µm per full center-element extension class
Notes	
Specs from Burleigh IW-700/710 Inchworm Motor documentation and Artisan/EXFO nanopositioning notes. Confirm travel length and controller match before drive.	

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.