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Data Sheet

August 15, 2026

BURLEIGH

Burleigh 7000-1-0 Inchworm Controller

The Burleigh 7000-1-0 Inchworm Controller is a precision motion control device that commands one to three Burleigh Inchworm motor axes independently or simultaneously. It delivers the voltage, current, and timing signals required for rapid actuation through sophisticated PZT drive electronics, supporting both open-loop manual operation and closed-loop feedback control with encoder counting circuitry. Control Modes: Open-loop (without feedback) and closed-loop (with encoder feedback) Resolution: Nanometer-level precision; Inchworm motors achieve 4 nm mechanical resolution Speed: Manual handset control: 4–40 nm/sec; overall speed determined by motor inertia and driver output capability



MODEL

Burleigh 7000-1-0

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

7000-1-0

LISTING

<https://aumictechlabs.com/products/7000-1-0-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Burleigh 7000-1-0 Inchworm Controller is a precision motion control device that commands one to three Burleigh Inchworm motor axes independently or simultaneously. It delivers the voltage, current, and timing signals required for rapid actuation through sophisticated PZT drive electronics, supporting both open-loop manual operation and closed-loop feedback control with encoder counting circuitry. Technical Specifications Axes of Control: One to three axes, independently or simultaneously Control Modes: Open-loop (without feedback) and closed-loop (with encoder feedback) Resolution: Nanometer-level precision; Inchworm motors achieve 4 nm

mechanical resolution Speed: Manual handset control: 4–40 nm/sec; overall speed determined by motor inertia and driver output capability Motor Compatibility: Burleigh Inchworm 700, LTS, and LTO series motors Key Features PZT drive electronics optimize voltage, current, and timing for actuator performance Closed-loop operation enables step size programming, position display, zero-point setting, stepping, and position maintenance Manual control via handset (e.g., Burleigh 6005) or joystick (e.g., Burleigh 7003) TTL signal input for automated control sequences RS-232 remote operation capability Optional PC interface support via Burleigh Model 671 ISA PC card for multi-controller systems controlling up to nine motors (three controllers × three motors) Typical Applications Precision positioning, scanning, and alignment tasks requiring nanometer-level repeatability and high-speed operation across single or multi-axis configurations. Compatibility & Integration Designed exclusively for Burleigh Inchworm motors. Integrates with standard accessories including handsets, joysticks, and optional ISA-based PC control cards for expanded system configurations.

70001 Characteristics / Specifications

PARAMETER	VALUE
Model Family	Burleigh 6100
Instrument Type	Inchworm motion controller
Axis Options	1 2 or 3 axes
Motor Type	Inchworm piezoelectric
Control Mode	closed loop class
Accessory Handset	Burleigh 6005
Accessory Joystick	Burleigh 6003
Related Series	6200 and 7000 controllers
Form Factor	benchtop controller
Interface	front panel plus remote accessories
Operating Temperature Class	0 C to 40 C
Line Power	100/120/220/240 V class
Position Resolution Class	nanometer Inchworm class
Travel Range	stage dependent
Vacuum Compatible Stages	supported with Inchworm
Manufacturer	Burleigh
Use Case	precision optical alignment
Drive Channels	one per axis
Status Display	axis position and fault
Emergency Stop	front panel disable
Cable Interface	Burleigh Inchworm motor cables
Storage Temperature Class	minus 20 C to 60 C class
Storage temperature	Class: minus 20 C to 60 C class
Operating temperature	Class: 0 C to 40 C

70001 Specifications

PARAMETER	VALUE
Burleigh 6100 Series Inchworm Controller	Overview
Applications	Nanometer-class optical alignment, vacuum chamber positioning, and multi-axis Inchworm stage control.
Key Features	1 2 or 3 axis configurations
Technical Specifications	Model Family: Burleigh 6100

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	Class: minus 20 C to 60 C class
Operating temperature	Class: 0 C to 40 C
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Line Power	100/120/220/240 V class
Position Resolution Class	nanometer Inchworm class
Travel Range	stage dependent
Vacuum Compatible Stages	supported with Inchworm
Manufacturer	Burleigh
Use Case	precision optical alignment
Drive Channels	one per axis
Status Display	axis position and fault
Emergency Stop	front panel disable
Cable Interface	Burleigh Inchworm motor cables
Storage Temperature Class	minus 20 C to 60 C class Notes Axis options and accessory models from Burleigh 6100/6200/7000 Inchworm controller catalog descriptions. Exact force/speed limits are stage-model specific.

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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Notes	
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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.