

**Aumictech**

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 15, 2026

BURLEIGH

Burleigh 6000-3-0-1-1 3-Axis Inchworm Controller

The Burleigh 6000-3-0-1-1 is a 3-axis Inchworm controller designed for precise positioning and motion control. It offers high resolution and stability for demanding applications.



MODEL

Burleigh 6000-3-0-1-1

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

6000-3-0-1-1

LISTING

<https://aumictechlabs.com/products/6000-3-0-1-1-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Burleigh 6000-3-0-1-1 is a 3-axis Inchworm controller engineered for precision motion control in laboratory and industrial positioning applications. It drives Burleigh Inchworm motors via sophisticated PZT drive electronics, delivering high resolution and high-speed operation under both open-loop and closed-loop control architectures. Single or multiple axes operate independently or simultaneously, with manual control via joystick or handset, or remote automation through TTL and RS-232 protocols. Technical Specifications Axes: Up to three axes, independently or simultaneously controllable Motor Compatibility: Burleigh Inchworm series 700 and IW-700 motors Drive Electronics: PZT (piezoelectric transducer) drive electronics Resolution: High resolution positioning Speed Performance: High-speed operation capability Control Modes: Open-loop (external clock and signal generation) and closed-loop (encoder counting circuitry with step sizing, position display, zero-point setting, targeted positioning, and position

maintenance) Limit Switches: Forward and reverse limit switch indication via LED display Power Supply: Universal voltage/frequency adaptable Key Features Dual manual control interfaces: 6003 Joystick (simultaneous 3-axis operation with speed proportional to deflection) and 6005 Handset (single-axis operation with knob speed control) Encoder input support for closed-loop operation: Differential TTL, Analog, and Single-Ended TTL compatibility Unidirectional manual port for TTL-level motor commands RS-232 and TTL remote control protocols 670 Series Computer Interface option for direct PC control Typical Applications Precision XYZ stage positioning, optical alignment, scanning microscopy, and laboratory automation requiring coordinated multi-axis motion with high repeatability. Compatibility & Integration Direct integration with Burleigh Inchworm motor series. Manual control via rear panel MANUAL port. Remote automation through TTL signals or RS-232 serial communication. Optional 670 Series Computer Interface supports LabVIEW and Windows-based PC control.

6000301 Characteristics / Specifications

PARAMETER	VALUE
Model	6000
Instrument Type	Inchworm motor controller
Axis Count Options	1 2 or 3
Series Family	Burleigh 6000
Related Models	6000ULN 6100 6200 7000
Handset Accessory	6005
Joystick Accessory	6003
Drive Type	piezoelectric Inchworm
Form Factor	benchtop controller
Operating Temperature Class	0 C to 40 C lab class
Power Line	AC mains class
Use Case	nanopositioning control
Interface	front panel and remote class
Resolution Class	nanometer class with Inchworm
Speed Class	mm per second class Inchworm
Travel Class	actuator dependent
Humidity Class	noncondensing
Storage Temperature Class	minus 20 C to 60 C class
Safety	high voltage piezo drive enclosed
Mounting	bench or rack shelf class
Interlock Class	enable interlock class optional
Display	axis position readout class
Storage temperature	Class: minus 20 C to 60 C class
Operating temperature	Class: 0 C to 40 C lab class
Humidity	Class: noncondensing

6000301 Specifications

PARAMETER	VALUE
Burleigh 6000 Inchworm Controller	Overview
Applications	Optical alignment, fiber coupling stages, and nanopositioning with Burleigh Inchworm actuators.
Key Features	1 2 or 3 axis controller configurations
Compatible with Burleigh Inchworm motors	Optional joystick 6003 and handset 6005
Technical Specifications	Model: 6000

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	Class: minus 20 C to 60 C class
Operating temperature	Class: 0 C to 40 C lab class
Operating Temperature	Class: 0 C to 40 C lab class
Humidity	Class: noncondensing
Operating Temperature Class	0 C to 40 C lab class
Power Line	AC mains class
Use Case	nanopositioning control
Interface	front panel and remote class
Resolution Class	nanometer class with Inchworm
Speed Class	mm per second class Inchworm
Travel Class	actuator dependent
Humidity Class	noncondensing
Storage Temperature Class	minus 20 C to 60 C class
Safety	high voltage piezo drive enclosed
Mounting	bench or rack shelf class
Interlock Class	enable interlock class optional
Display	axis position readout class Notes Capability rows from Burleigh 6000 Inchworm controller family catalog. Exact axis voltage and step size are on the 6000 configuration datasheet matching the dash options in queue SKUs.

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	
Specifications	
PARAMETER	VALUE
Model	6000
Instrument Type	Inchworm motor controller
Axis Count Options	1 2 or 3
Series Family	Burleigh 6000
Related Models	6000ULN 6100 6200 7000
Handset Accessory	6005
Joystick Accessory	6003
Drive Type	piezoelectric Inchworm
Form Factor	benchtop controller
Operating Temperature Class	0 C to 40 C lab class
Power Line	AC mains class
Use Case	nanopositioning control
Interface	front panel and remote class
Resolution Class	nanometer class with Inchworm
Speed Class	mm per second class Inchworm
Travel Class	actuator dependent
Humidity Class	noncondensing
Storage Temperature Class	minus 20 C to 60 C class
Safety	high voltage piezo drive enclosed
Mounting	bench or rack shelf class
Interlock Class	enable interlock class optional
Display	axis position readout class
Notes	
Capability rows from Burleigh 6000 Inchworm controller family catalog. Exact axis voltage and step size are on the 6000 configuration datasheet matching the dash options in queue SKUs.	

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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 15, 2026

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