

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 15, 2026

BURLEIGH

Burleigh 6100-3-3-1-4 3-Axis Inchworm Controller

The Burleigh 6100-3-3-1-4 is a 3-axis Inchworm controller designed for precise positioning and motion control applications. It offers closed-loop control, high resolution, and stable performance. Ideal for research and industrial applications requiring accurate and repeatable movements in three dimensions.



MODEL

Burleigh 6100-3-3-1-4

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

6100-3-3-1-4

LISTING

<https://aumictechlabs.com/products/6100-3-3-1-4-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Burleigh 6100-3-3-1-4 is a three-axis Inchworm controller engineered for ultra-high resolution linear motion control. It delivers sophisticated PZT drive electronics that generate precise voltage, current, and timing signals to actuate Inchworm motors at high speed with exceptional positional resolution. The controller supports independent or simultaneous axis operation, making it suitable for complex multi-axis positioning tasks. The 6100-3-3-1-4 operates in both open-loop and closed-loop modes. Open-loop operation provides manual control via handsets or joysticks, or automated control through TTL signals, without integrated position feedback. Closed-loop operation incorporates encoder counting circuitry, enabling step-size definition, position display, zero-point establishment, targeted positioning, and position

maintenance. Technical Specifications Axes: 3-axis control Control Modes: Open-loop and closed-loop operation Drive Electronics: PZT drive electronics for Inchworm motor actuation Programmability: Programmable controller for customized motion sequences and parameters Operational Flexibility: Independent or simultaneous axis operation Key Features Encoder interface for closed-loop position feedback and verification Manual Port with enhanced input lines for closed-loop systems TTL signal control for automated operation RS-232 protocol support for remote control PC interface capability via Model 660 PCIC interface card (IBM-PC/XT compatible) High-level language control and programming support Typical Applications Fiber optic alignment, disk drive media verification, and cellular recording applications requiring ultra-high resolution linear motion. Compatibility & Integration Designed for Burleigh Inchworm Motors (700 series and LTS/LTO series). Part of the Burleigh 6000 series controller family. Compatible with optional interface cards and accessory control devices for expanded system integration.

6100331 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

6100331 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

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

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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.