

**Aumictech**

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Data Sheet

August 15, 2026

BURLEIGH

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

The Burleigh 6100-1-1-1-3 is a single-axis Inchworm controller designed for precise and repeatable motion control. It provides stable operation and high resolution for demanding applications. This controller is ideal for use with Burleigh Inchworm motors to achieve precise positioning in research and industrial environments.



MODEL

Burleigh 6100-1-1-1-3

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

6100-1-1-1-3

LISTING

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

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Burleigh 6100-1-1-1-3 is a single-axis Inchworm controller that delivers precise, repeatable motion control through sophisticated PZT drive electronics. This unit generates the voltage, current, and timing signals required for rapid actuation of Inchworm motor drive elements, combining high-speed operation with nanometer-scale positioning resolution. The controller supports both open and closed-loop operation modes and can function independently or in multi-axis configurations, accommodating diverse integration requirements across research and industrial applications. Technical Specifications Axes: 1 Control Mode: Programmable; open or closed-loop operation Drive Electronics: Sophisticated PZT drive electronics Resolution: Nanometer-scale positioning capability Motor Type: Designed for Burleigh Inchworm motors Operation Speed: High-speed capable Key Features Generates voltage, current, and timing for rapid drive element actuation Supports independent or simultaneous multi-axis operation

Programmable control with selectable loop modes Manual control via Burleigh 6005 Handset or 6003 Joystick accessories Remote control via TTL signals or RS-232 protocols Typical Applications Precision positioning and alignment in research environments Industrial motion control requiring nanometer resolution Applications requiring rapid, repeatable actuation cycles Multi-axis systems with synchronized or independent axis control Compatibility & Integration The 6100-1-1-1-3 integrates with Burleigh Inchworm motor families and operates as either a standalone controller or as part of a larger multi-axis motion platform. Manual operation is achieved through optional handset or joystick control interfaces. Remote operation employs standard TTL or RS-232 communication protocols, enabling integration with host systems and automation frameworks.

6100111 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

6100111 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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Operating Temperature Class	0 C to 40 C
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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.