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C-161.2i

PIIntelliStep™ Stepper Motor with Integrated Controller/Driver



C-161.2i

- **Stepper Motor & Controller in One Package**
- **Compact Size, Ideal for OEM Applications**
- **20,000 Steps/Rev. for Smooth Positioning**
- **Daisy-Chain Network Feature for up to 9 Devices**
- **Configurable TTL-Level Limit Switch Inputs**
- **Compatible with Apollo™ and PIIntelliStage™**
- **Mechanically Compatible with PI Micropositioners**

The C-161.2i PIIntelliStep™ unit is a very cost-effective solution for flexible automation and positioning tasks in research and industry. The PIIntelliStep™ combines a high-resolution stepper motor and a motion controller/driver in an extremely compact package.

High Reliability

Because of the high level of integration, PIIntelliStep™ motors contain less than 50% of the components of a classical controller/motor setup (electronics, mechanics and cables). The motor itself is a 2-phase stepper motor providing more than 20,000 hours MTBF. Finally, limit and origin sensor inputs help to protect your positioning equipment and offer the highest level of compatibility.

Network Capability

Up to 9 units can be daisy-chained and controlled from a single RS-232 interface. This is a tremendous advantage in multi-axis setups for automation tasks.

PIIntelliStep™ – PIIntelliStage™

Mechanically attached to a micropositioning stage, the

PIIntelliStep™ motor results in a complete high resolution micropositioning system. It is software compatible with the PI PIIntelliStage™ M-5x1.5i series and the C-630.32 Apollo™ stepper motor controllers. Apollo™ Controller, PIIntelliStage™ and PIIntelliStep™ motor can be mixed in the same network of up to 9 axes.

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C-161.2i seamlessly fits all PI flanged motor stages, such as the M-126 or M-400 translation stage series or M-037, M-038 and M-060 rotary stage series.

Application Examples

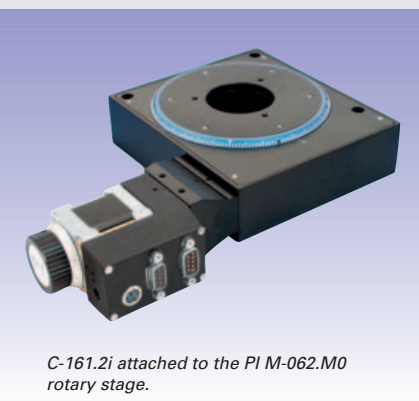
- Flexible Automation
- Quality Control
- Test Equipment
- Micropositioning

Ordering Information

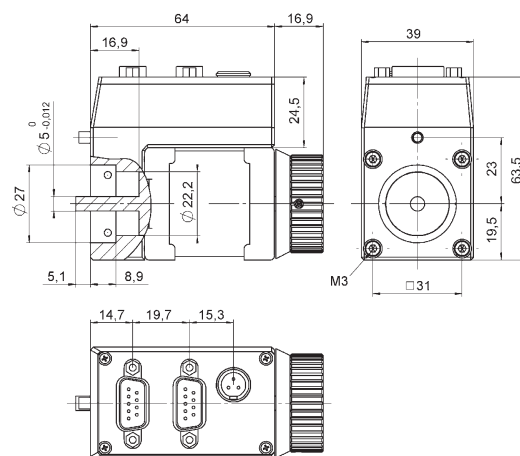
C-161.2i
PIIntelliStep™ Motor, RS-232 Interface

Technical Data

Model	C-161.2i
Function	Stepper motor with integrated controller and driver
Motor	2-phase stepper motor, 24 V chopper voltage
Resolution	20,000 microsteps/rev.
Step-size	314 µrad/microstep (0.018°/microstep)
Velocity	to 100,000 microsteps/sec
Acceleration	to 2,500,000 microsteps/sec ²
Torque	0.31 Nm
Supply power	18-27 V DC, max. 0.7 A
Controller	Integrated into motor housing
Command set, programming	ASCII command set, Windows™ operating software, DLL and LabVIEW™ drivers
RS-232 Interface	9.6 or 57.6 kbaud (default 9.6 kbaud), ring-bus topology support
Connectors	2 x 9-pin (m/f) sub-D, 3-pin power
Daisy-chain networking	up to 9 devices
Limit switch inputs	4 TTL, programmable, 200 mm cable
Dimensions	80.9 x 63.5 x 39.0 mm ³



C-161.2i attached to the PI M-062.M0 rotary stage.



C-161.2i dimensions in mm, decimal places separated by comma.