

Motion Controller Card | MMX-220

NEW

Preliminary Available Q2, 2026
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The MMX-220 is a high-performance single-axis motion control card for stepper-driven actuators, with closed-loop positioning resolution down to the sub-micron level (drivetrain screw pitch dependent). Automatic microstepping logic simplifies programming, providing smooth, precise motion with minimal setup. Designed to interface with the MMX-RACK, multiple cards can be combined to create compact, high-density motion systems with up to 24 axes. The cards are easily field-replaceable, making system upgrades and maintenance simple and convenient. The MMX-RACK is sold separately; refer to its datasheet for additional details.

KEY FEATURES

- Closed loop resolution down to $< 1 \mu\text{m}$ (dependent on encoder)
- A quad B differential digital (RS-422), sin/cos analog, and absolute (BiSS-C) encoder interface
- Designed with MMX-RACK to create a high density controller
- Easily replace or expand number of axis on single system

TECHNICAL DATA

Axes	1, Expandable to 24 with MMX-RACK
Motor Type	Stepper Motor
Interface	USB 2.0, Ethernet 10/100 Mbps (via MMX-RACK)
Commands	ASCII
Input Power	12-48V***
Motor Output	Max Voltage 48V, Max Current 5A***
Resolution	$< 1 \mu\text{m}$ **
Trajectory Mode	Trapezoid Velocity Profile
Trajectory Update Frequency	1 kHz
Servo Clock Frequency	10 kHz
Program Storage	32 storable programs
Card Dimensions	L122.6 x W84 x H15 mm
Software	Windows GUI, LabView VI

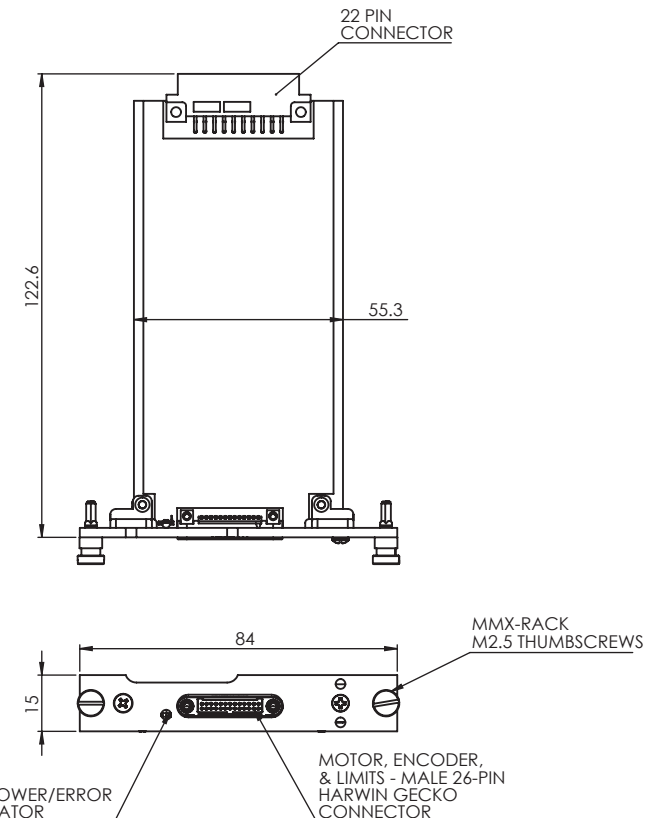
ORDERING INFORMATION

MMX-220 - 0 1 N 0

ENCODER INTERFACE

Analog (1 V_{pp}) 0
Digital (RS-422) 1
Absolute (BiSS C) 2

** dependent on encoder
***dependent on MMX-RACK



• all dimensions are in millimeters