

- NEMA 17 stepper motor with built-in controller
- Up to 25,600 microsteps per revolution
- Up to 2,650 rpm speed and 30 N·Åcm torque
- Home sensor and small magnet included, optional magnetic away sensor
- Daisy-chains data and power with X-series products

Product Description

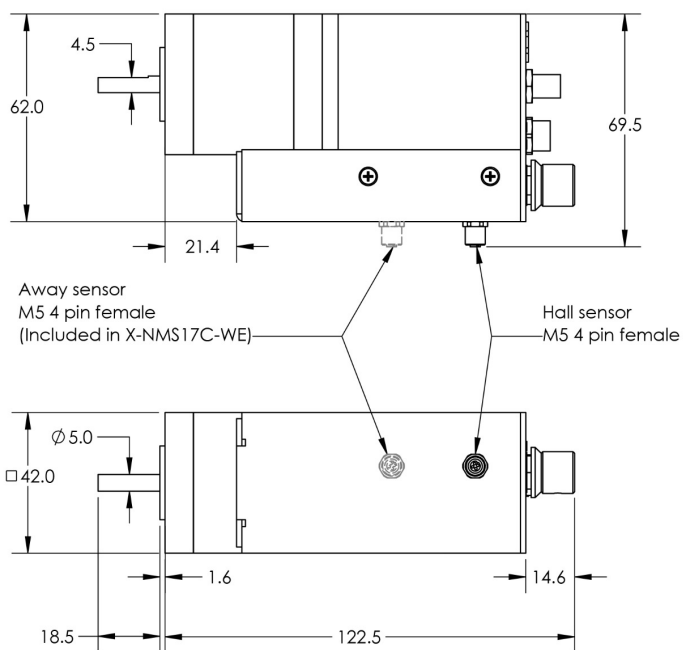
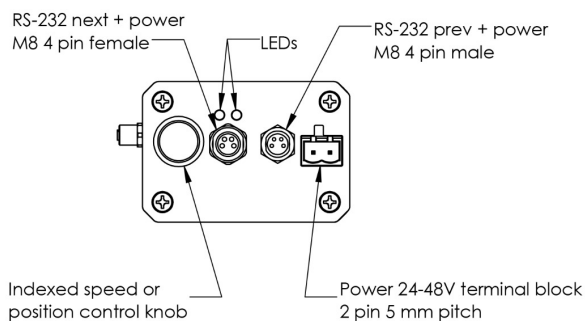
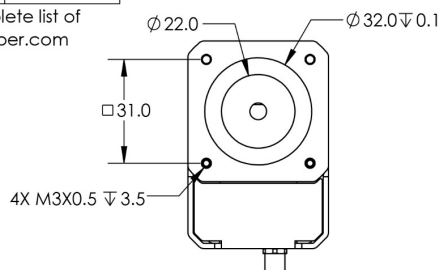
These NEMA size 17 stepper motors have a built-in controller and motor encoder. A detachable home sensor with mounting screw and a small magnet are included. An additional, optional away sensor is also available. They are standalone units requiring only a standard 24 V or 48 V power supply.

An indexed knob provides convenient manual control for versatile operation even without a computer. The motors connect to the USB 2.0 or RS-232 port of any computer and can be daisy-chained with any other Zaber products. Convenient locking, 4-pin, M8 connectors on the unit allow for secure connection between units. The chain also shares power, so multiple X-Series products can use a single power supply.

Dimension Drawings

Model Number*	Hall Sensor	Away Sensor
X-NMS17C-E	Included	-
X-NMS17C-WE	Included	Included

*See product page for complete list of available models at www.zaber.com



Product Specifications

Specification	Value	Alternate Unit
Microstep Size (Default Resolution)	0.028125°	490.866 µrad
Built-in Controller	Yes	
Accuracy (unidirectional)	0.25°	4.362500 mrad
Repeatability	< 0.1°	< 1.745 mrad
Maximum Speed	15900 °/s	2,650.1 rpm
Minimum Speed	0.264 °/s	4,607.592 µrad/s
Speed Resolution	0.264 °/s	
Encoder Resolution	500 CPR	2,000 states/rev
Encoder Type	Motor mounted rotary quadrature encoder	
Communication Interface	RS-232	
Communication Protocol	Zaber ASCII (Default), Zaber Binary	
Maximum Torque	30 N·Å c m	42.5 oz·Å i n
Maximum Current Draw	1200 mA	
Power Supply	24-48 VDC	
Power Plug	2-pin Screw Terminal	
Motor Steps Per Rev	200	
Motor Type	Stepper (2 phase)	
Motor Rated Current	2300 mA/phase	
Motor Rated Power	11.6 Watts	
Default Resolution	1/64 of a step	
Data Cable Connection	Locking 4-pin M8	
Motor Frame Size	NEMA 17	
Motor Shaft Diameter	5 mm	0.197 "
Limit or Home Sensing	Magnetic home and away sensors	
LED Indicators	Yes	
Mounting Interface	4 M3 tapped holes 31 mm apart	
Vacuum Compatible	No	
Operating Temperature Range	0 to 50 °C	
RoHS Compliant	Yes	
CE Compliant	Yes	
Weight	0.61 kg	1.345 lb

Specification Charts

Torque Speed Performance

