

ER-15

ER-15



Characteristics	<ul style="list-style-type: none">■ silent operation - undetectable■ zero backlash, no gear required – straightforward mechanical design■ best SwaP performance – increase overall system performance■ negligible EMI/RFI signature – no distortion■ MIL_STD-810F compliant for shock, vibration and temperature – safe and reliable
Dimensions (mm)	Ø 15 x 22.5 – ER-15-4 Ø 15 x 25.95 – ER-15-4-S0 Ø 15 x 35.2 – ER-15-4-E0
Voltage (V)	5
Speed (rpm)	300
Torque (mNm)	8
Power consumption (W)	2 max

Application recommendations

■ Defense Optronics systems	Shutter/Filters Focus/Zoom Field switch General actuation Pan & Tilt
■ Medical	Near MRI environment High radiation environment Dosing
■ Semiconductor	Optical elements positioning Scanners

Description

Nanomotion's ER Series leverages the many advantages of our piezo technology, applied in a traditional motor housing. Utilizing a piezo drive inside the motor, the ER Series offers silent motor operation with zero backlash (no gears) and built-in holding and braking without power consumption.

Motors can be provided with a closed back, rear-shaft, or with a built in rotary encoder. Closed loop operation is supported with Nanomotion's S775 XCD card, which is a closed loop drive & control module. The S775 can be provided as a small board or chip level based controller for integration into other electronics.

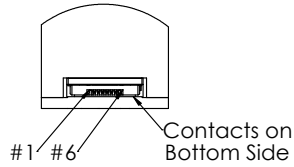
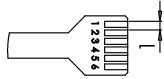
Order Reference

Type	Rotary Piezo Motor
ER-15-4	closed back
ER-15-4-S0	with back shaft
ER-15-4-E0	with back encoder
Related products/accessories	
S775150000-03	Controller Driver Board Assembly

Technical Data

Mechanical	Weight	12 g / 18 g with encoder
	Dimensions	Ø 15 x 22.5 mm / Ø 15 x 25.95 mm with backshaft / Ø 15 x 35.2 mm with encoder
Performance	Operation	-40 °C to +70 °C
	Vibrations	10 g rms (holds position without power)
	MTBF	50,000 hours
	Encoder resolution	4096 CPR

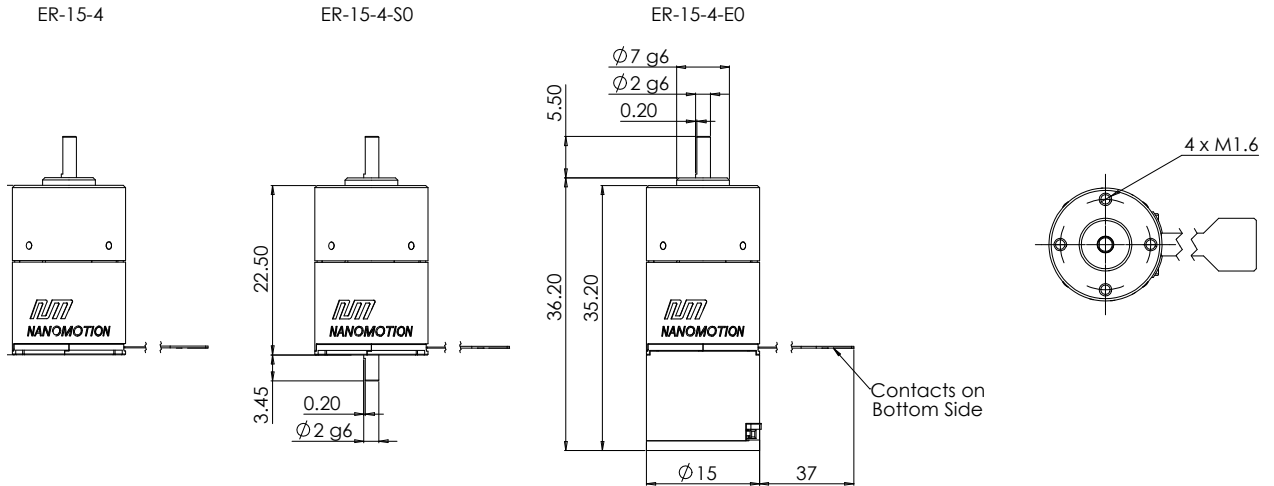
Pinout



Motor Pinout Table Optional: SD-52207-0685	
Pin No.	Pin Name
1	NTC Out
2	NTC In
3	P2
4	P1
5	COM
6	COM

Encoder Pinout Table MOLEX 545500671	
Pin No.	Pin Name
1	Vdd (+5V)
2	GND (0V)
3	A
4	Ri
5	B
6	Case

Dimensions



Performance Chart

