

LEGS-R01S-12



Key Features

- 80Nmm Piezo LEGS[®] rotating motor
- Easy integration
- High Resolution
- Very High Speed Dynamics
- Very simple electronics

The Piezo LEGS[®] 80Nmm motor is intended for a very large range of applications. The motor is available in a number of different configurations. The motor is giving a high torque in a small package with excellent characteristics in terms of regulation behavior.

The advantage of using the Piezo LEGS[®] technology is the unsurpassed accuracy in positioning resolution as well as automatic locking giving true set-and-forget performance. The technology is based on direct drive which removes the issues of hysteresis and backlash.

Drive Technology

The motor is using the patented Piezo LEGS[®] technology.

Controlling the motor

The range of drivers includes simple full step drivers to more advanced micro-stepping drivers that can fully utilize the excellent performance of the Piezo LEGS[®] technology. Drivers are available both from PiezoMotor as well as other independent companies (See Piezomotor.com for details).

Ordering Information

LEGS-R01S-12	Standard
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ACCESSORIES

PMD90	Microstepping Driver
PMCM31-01	PiezoMotor Driver Model PDA 3.1



PMD90

Simple electronics

For users wishing to fully integrate drivers into the overall system PiezoMotor can supply all waveforms and movement patterns to speed up the implementation. The motor is operating in a non-resonant mode and is not sensitive to cable lengths etc.

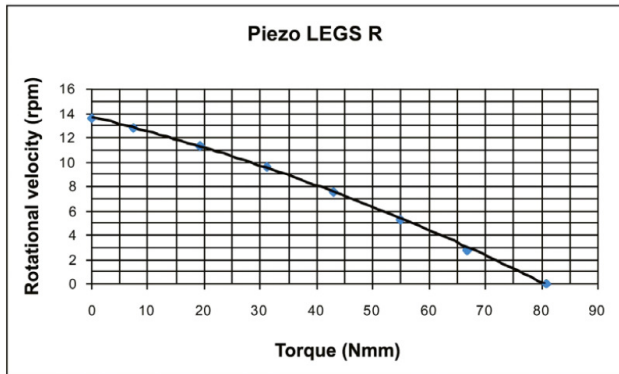
Open Loop/Closed Loop Operation

The motor can be moved in full steps, shorter steps or partial steps (micro-stepping) giving positioning resolution in the μ rad range. Speed is easily adjustable from extremely low up to max specified.

Notes

Additional information is available upon request, info@piezomotor.com

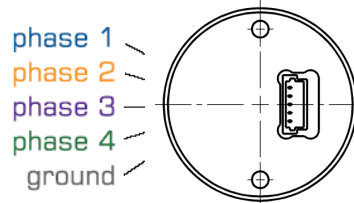
Rotational Velocity and Load(Torque)



Motor performance for a drive frequency of 2100 Hz.

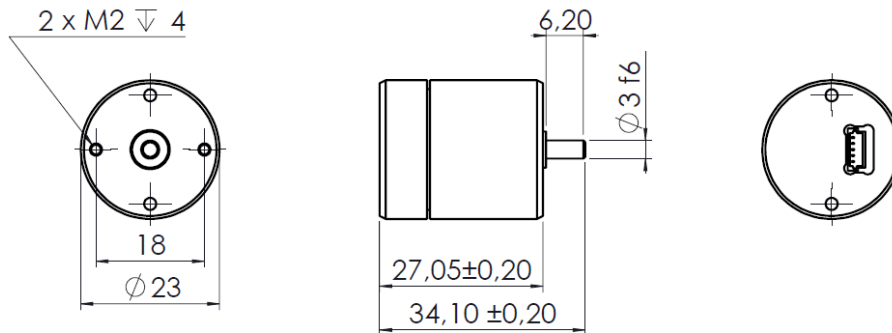
Connector Type and Pin Assignment

The motor connector is JST BM05B-SRSS-TB.



1 Ground is floating from chassis/protective GND (PGND).

Mechanical Drawing



Technical Specification			
Type	LEGS-R01S-12	Unit	Note
Angular Range	360	$^{\circ}$	Continuous
Maximum Speed	20	rpm	
Resolution	<1	μ rad	
Max voltage	42	V	
Stall torque max	80	Nmm	Set by spring force
Holding torque	90	Nmm	Set by spring force
Surface	bare metal		
Mechanical size	32x23	mm	See drawing for details
Weight	-	gram	
Operating Temp	-20 - +70	$^{\circ}$ C	
Encoder type	Magnetic		Optional
Encoder resolution	N/A	μ rad	13bit
Encoder interface	N/A		SPI

NOTE: All specifications are subject to change without notice.