

2424
ADAFRUIT

Buy Now



Looking for a discount?

[Check out our current promotions!](#)

Give us a call

1-855-837-4225

International: 1-415-281-3866

Email Us

Sales and New Orders: sales@verical.com

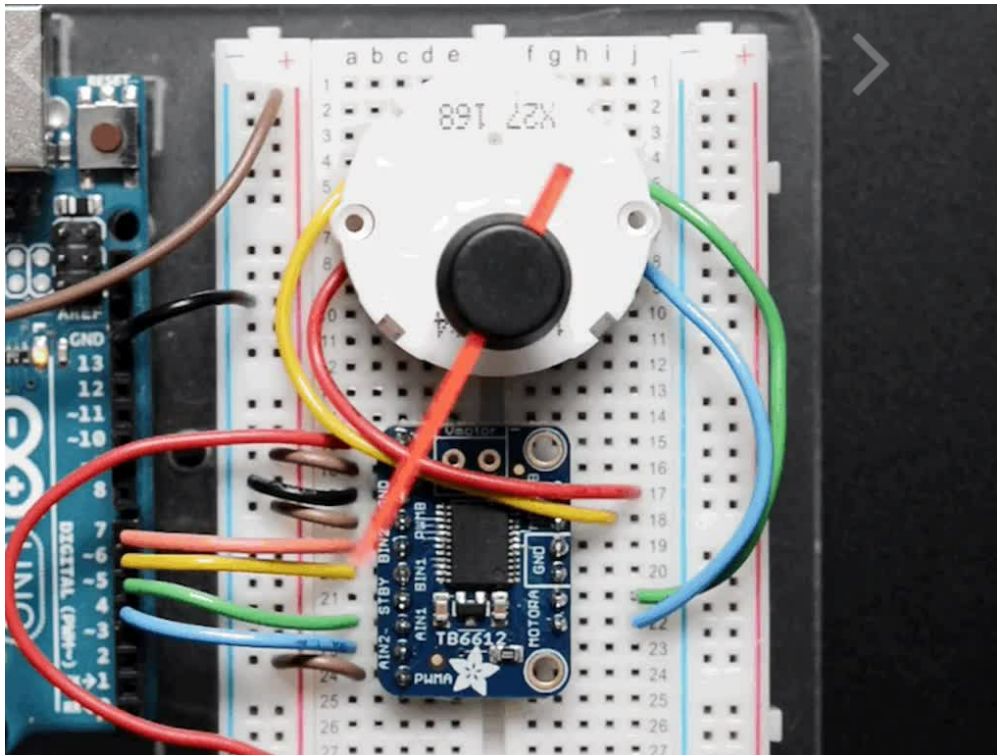
Order Support: support@verical.com

Suppliers: [Visit our seller page](#)

Company Address

Arrow Electronics, Inc
9201 East Dry Creek Road
Centennial, CO 80112

This coversheet was created by Verical, a division of Arrow Electronics, Inc. ("Verical"). The attached document was created by the part supplier, not Verical, and is provided strictly 'as is.' Verical, its subsidiaries, affiliates, employees, and agents make no representations or warranties regarding the attached document and disclaim any liability for the consequences of relying on the information therein. All referenced brands, product names, service names, and trademarks are the property of their respective owners.



Automotive Gauge Stepper Motor - x27.168

PRODUCT ID: 2424

48 IN STOCK

1

ADD TO CART

1-9

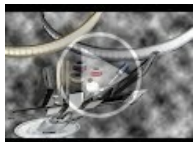
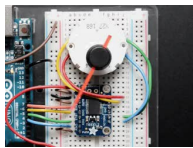
10-99

100+

ADD TO WISHLIST

[DESCRIPTION](#)

[TECHNICAL DETAILS](#)



DESCRIPTION

This stepper motor is a little different than the large NEMA-17 types you may be used to. These are often used in gauges for motorcycles and cars to replace the old-style fully-analog type.

They have extremely fine step precision of about 1/2 a degree per step, 600 steps for single stepping, fast response for quick movements, and a range of ~315° degrees. Their smooth motion makes good for small projects that need a dial indicator, and more precision motion than you may get with a needle gauge.

Since this is a bi-polar stepper motor you do need to have some sort of H-Bridge to drive it. A [L293D](#) or [TB6612](#) will do the job nicely. If you have a microcontroller that can drive 200 ohm loads you might be able to use the direct pins without extra MOSFETs, just remember to include kickback/flyback protection diodes!

Note that the motor is quite 'weak', not good for moving anything but a light indicator. We include a red-line dial that fits nicely on top by pushing onto the needle shaft.

TECHNICAL DETAILS

[Datasheet](#) - we don't have an exact datasheet but did find one for a compatible gauge, which may be helpful (although not guaranteed to be identical)!

- Axial Force Maximum: 150N
- Axial Pull Force Maximum: 100N
- Radial Force Maximum: 12N
- Rotation Angle Maximum: 315°
- Coil Resistance: 260 ohm
- General Tolerance: $\pm 0.1 / \pm 5^\circ$
- Rotation Angle Maximum: ~315°
- 600 steps per 'rotation' (315 degree rotation)

Dimensions:

- Red-Line Dial Diameter: 13mm / 0.5"
- Red-Line Dial Length: 42mm / 1.65"
- Dial Thickness: 1mm / 0.04"
- Motor Diameter: 32mm / 1.3"
- Motor Thickness (w/o pins): 9mm / 0.35"

LEARN



[Raspberry Pi Physical Dashboard](#)

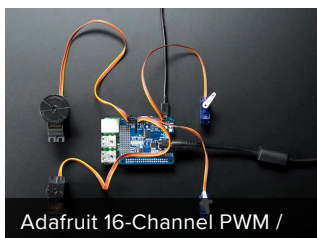
Build a dashboard to visualize data on LED displays and automotive gauges!



[CircuitPython Hardware: PCA9685 DC Motor & Stepper Driver](#)

How to use the PCA9685 DC Motor & Stepper driver with CircuitPython!

MAY WE ALSO SUGGEST...



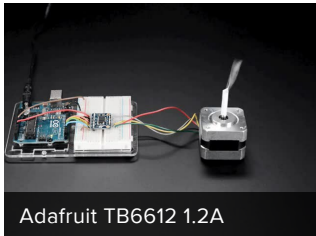
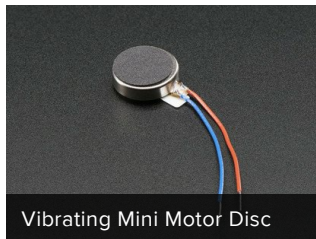
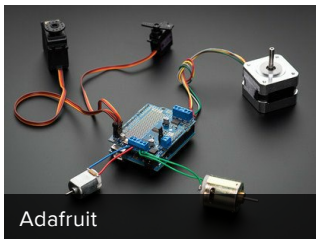
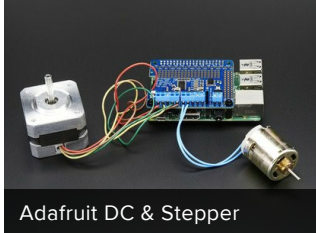
Adafruit 16-Channel PWM /



Small Reduction Stepper



DC Toy / Hobby Motor - 130

DISTRIBUTORS [EXPAND TO SEE DISTRIBUTORS](#)

CONTACT

SUPPORT

DISTRIBUTORS

EDUCATORS

JOBS

FAQ

SHIPPING & RETURNS

TERMS OF SERVICE

[PRIVACY & LEGAL](#)

ABOUT US

ENGINEERED IN NYC Adafruit®

"Collaborative production is simple: no one person can take credit for what gets created, and the project could not come into being without the participation of many"
- Clay Shirky

- Clay Shirky



4.9 ★★★★★
Google
Customer Reviews