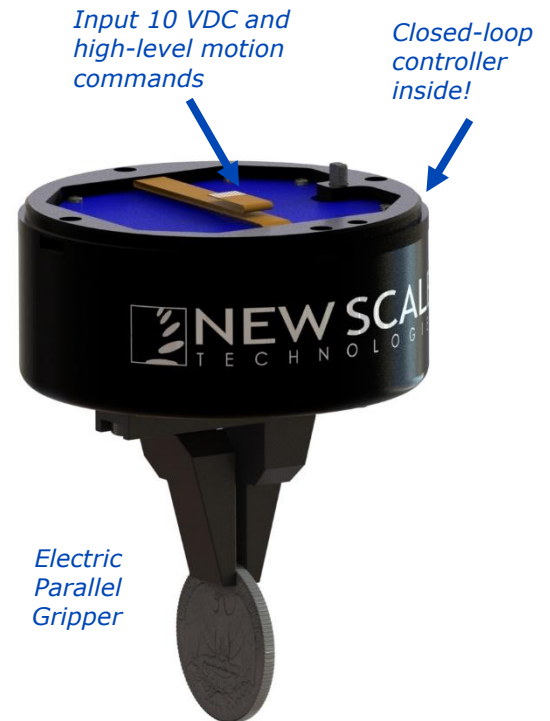


M3-PG-3.4-24 Parallel Micro Gripper

Precise Position and Force Control with "all-in-one" Embedded Controller

- Smallest "all-in-one" electric parallel gripper
- Mass of 125 grams
- Gripper Performance:
 - 0 to 24 mm range (12 mm stroke per arm)
 - 0.5 micrometer closed-loop position resolution
 - Independent force and position control of each arm.
 - 10 micrometer repeatability of gripper centerline to part centerline
 - Holds position with zero power and no jitter
 - 0.1 N closed-loop force resolution (per arm)
 - +/- 8 N maximum force (+/-4 N per arm)
 - Overload force of +/- 100 N
 - 8 mm/sec maximum velocity (4 mm/sec per arm)
- Easy to install and operate on any robot.
- Plug and play embedded closed-loop controller
 - *No separate electronics needed*
 - Compatible with slip ring circuits on robot
 - 10, 12, 24 VDC input (selectable)
- Accepts digital motion and force commands
 - Ethernet, EtherCAT, Can Bus, RS485 (selectable)
- Optional Z-Force sensor. (See next page.)



M3-PG-3.4-24, Parallel Micro Gripper

Automation Tasks

- Handling small and delicate parts
- Manipulation and assembly
- Precise inspection and sorting
- Parallel gripping of multiple parts
- Multiple grippers on one robot for sequential operations

Fast and Flexible Automation

The M3-PG-3.4-24 Parallel Micro Gripper is a smart end-of-arm tool that provides fast set-up and flexible automation of small part assembly.

This tiny electric parallel gripper is a fully-integrated micro mechatronic module that combines all functions of actuation, measurement, guidance, electronic drive and closed-loop control. **No separate electronics are needed.** The embedded controller achieves the smallest system size and easy integration on any robot using internal slip rings. No external wires are needed!

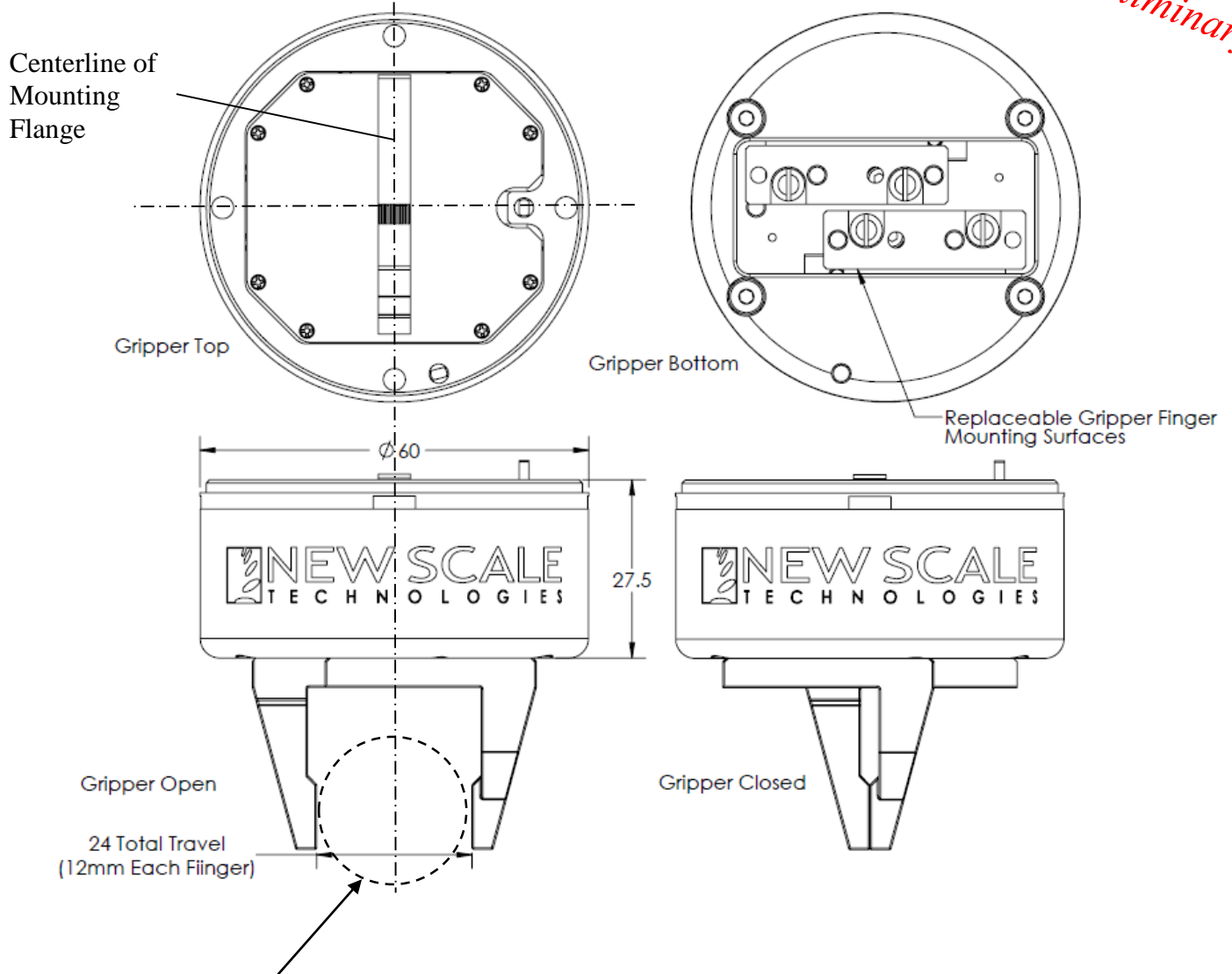
The gripper arms are easily replaceable and customized for specific parts and processes.

Developer's kits include a USB adapter for PC control, and New Scale Pathway™ software for initial evaluation and testing.



Preliminary

M3-PG-3.4-24 Parallel Micro Gripper



Deviation of part centerline to mounting flange centerline is repeatable within 10 micrometers.

Optional Z-Force Sensor:

- Measurement range of +/- 5 N
- Overload force of +/- 100 N
- Force resolution of 0.1 N
- Sensor stiffness better than 1 N/micrometer stiffness, maximum overload force of 50 N.

