

SmartGrippers™ 0050 and 0150

Applied Robotics' SmartGrippers™ 0050 and 0150 are specifically designed for precision and application flexibility.



SmartGrippers™ 0050 and 0150

Featuring a universal operating platform and accurate positioning of robotic fingers, Applied Robotics' SmartGrippers™ meet your stringent requirements for precision and application flexibility, while bringing greater efficiencies to your application.

The SmartGrippers™ are operated using 24Vdc discrete signals for use with any robot controller, or a serial RS232 (RS485 Optional) link. The user can pre-program parameters into the SmartGripper's™ non-volatile memory for later recall triggered by the robot controller's discrete output lines. Up to 7 parameters can be selected using the SmartGripper's™ 4 discrete input lines. Status about the motions, "motion complete" and "no error detected" is provided by the SmartGripper's™ 2 discrete output lines. The user can issue serial commands and parameters as required by the application. The SmartGripper™ replies serially with its address and "OK", or "Error" and error number.

A PC-based software tool assists in operation.

Interchangeable fingers are designed to hold or carry micro plates (in either landscape or portrait orientation), test tubes and other media. Fingers can be designed by the user, or provided by Applied Robotics, Inc.

The SmartGripper™ comes with an internal motion controller and precision motor. The SmartGripper™ is powered by 24Vdc at 0.5 Amps maximum.

Not exactly what your application requires? Smart Grippers™ are fully scalable. Applied Robotics can design a solution that meets your particular application needs.

Benefits

- Accurate positioning of the fingers
- Variable and adjustable grip force
- No proprietary software or controllers required
- Safe, reliable --> will never drop anything
- Direct drive --> minimizes backlash
- RoHS Compliant

Features

- SG0050 has 50 mm of finger travel and SG0150 has 100 mm
- Repeatability 0.01 mm
- Variable and adjustable grip force 3 to 50 N
- Finger movements up to 175 mm/sec.
- Easy to integrate
- Four discrete 24 Vdc inputs for control
- Two discrete 24 Vdc outputs for status and feedback
- PC-based configuration software for program development
- Relative encoder closed loop architecture
- Proven and tested under "real-life" conditions on articulated robots along with precise lab bench monitoring for millions of cycles
- Single cable for power and communication
- Fail-safe brake 5 N
- Visual diagnostic LED indicators
- RS232/485 programming port (user option selected at purchase time)

Accessories/Options

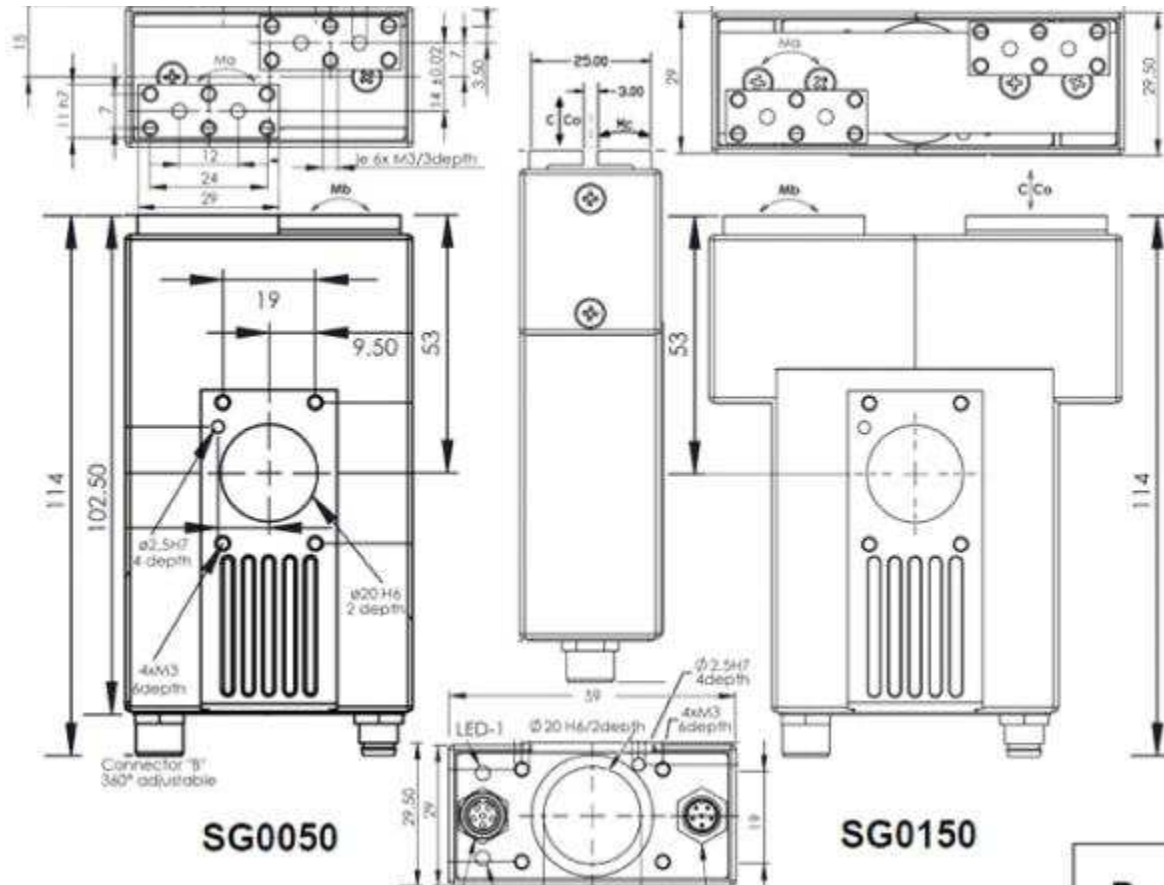
- Quick connect options for flexible automation
- Collision sensing options
- Finger sets available
- Top and rear mounting available
- Simulation I/O box

*Not exactly what your application requires?

Applied Robotics can design a solution that meets your particular application needs.

* For specific product applications, please contact our Tech Support staff at techsupport@appliedrobotics.com or via telephone at (518)384-1000 or +39 (0) 32 39 65 93 in Italy.

Engineering Data



Technical Specifications

SG00500

SG0150

Overall Dimension	114 x 59 x 29.5mm [4.5" x 2.3" x 1.2"]	114 x 85 x 29.5mm [4.5" x 3.3" x 1.2"]
Weight	0.39 kg [0.9 lbs]	0.43 kg [0.9 lbs]
Stroke	50 mm [2.0"]	100mm [3.9"]
Mounting Surface	Top or Rear Bracket	Top or Rear Bracket
Velocity	(max) 175 mm/s	(max) 175 mm/s
Force	(max) 50 N (min 3 N)	(max) 50 N (min 3 N)
Operating Temperature	-20 to 60°C [-4 to 140°F]	-20 to 60°C [-4 to 140°F]
Max Power Consumption	12 W	12 W
Operating Voltage	24 Vdc	24 Vdc
IP Rating	IP 30 (IP67 available upon request)	IP 30 (IP67 available upon request)
Rated Life	17,500,000 open/close cycles	17,500,000 open/close cycles

Applied Robotics Inc.
648 Saratoga Road
Glenville, NY 12302 USA
518 384 1000 tel
518 384 1200 fax

Applied Robotics Inc.
540 North Lapeer Road #365 Orion
Township, MI 48362 USA
248 358 3677 tel
248 358 2654 fax

Applied Robotics Europe
Via Roma 141/143
28017 San Maurizio d'Opaglio (NO) -Italy
Tel: +39 0322 96593
Email: info@appliedrobotics.eu

www.arobotics.com

