New Scale Robotics

NSR-PG-10-20-UR
Precision Parallel Gripper
for g-Series Universal Robots

The perfect fit for UR g-series robots and automated small part handling

High finger motion precision for intricate small part handling and assembly

Small and light for fast, precise movement

Teachable finger positions

Quick connect to UR tool port
– *no cables* along the robot arm
– *no external* controller

Easy-to-use URCaps application included for UR teach pendant

Small, precise electric gripper for agile automation in small spaces

The NSR-PG Precision Parallel Gripper is the perfect fit for the smallest collaborative robots from Universal Robots. It is compatible with g-Series UR robots.

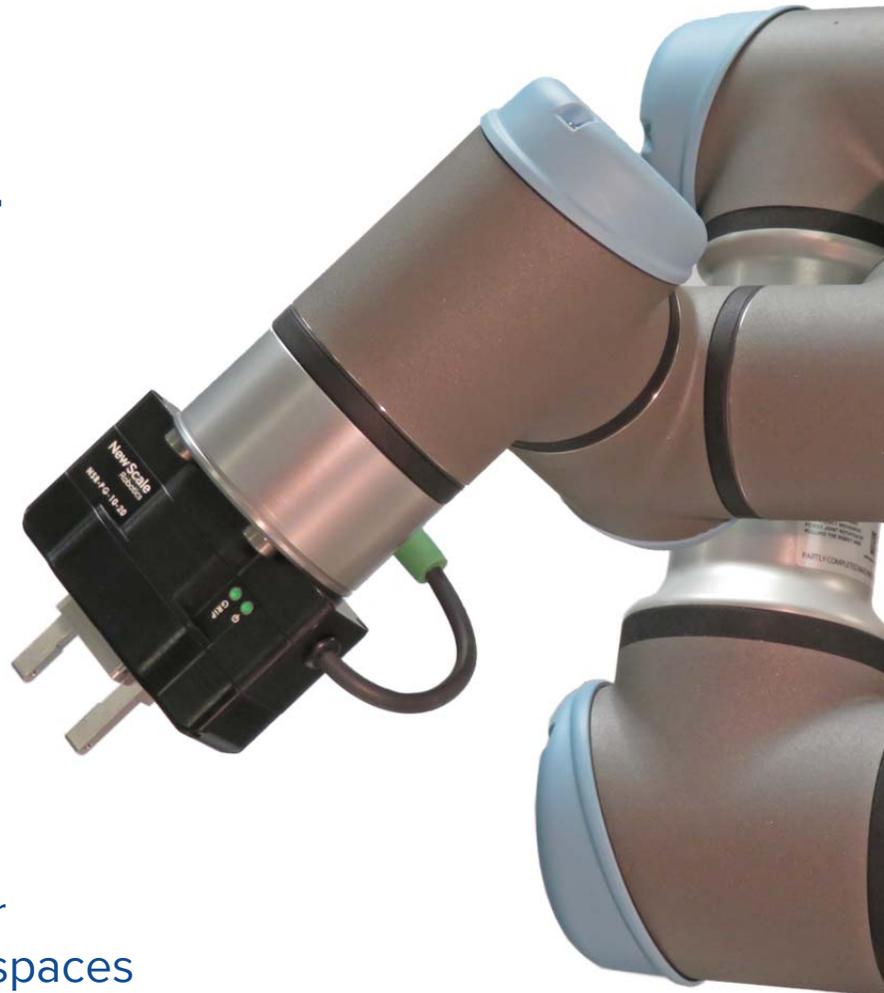### Handle a wide variety of small parts

Its small size and light weight lets you automate intricate part handling and assembly tasks in confined spaces. Grip force and speed are programmable to handle delicate or rigid parts.

Make decisions based on part dimensions

The gripper continuously senses the absolute position of its fingers with 10 μm (0.4 $^{in}/_{1000}$) resolution. You can make in-process decisions based on part dimensions. *For higher measurement resolution, see our new NSR-PG-10-20-UR**e** gripper for e-Series robots.*

Enjoy plug-and-produce simplicity

The gripper installs in minutes using only the UR robot tool flange, tool port and teach pendant. Your team can minimize set-up time and make quick changes on the floor.
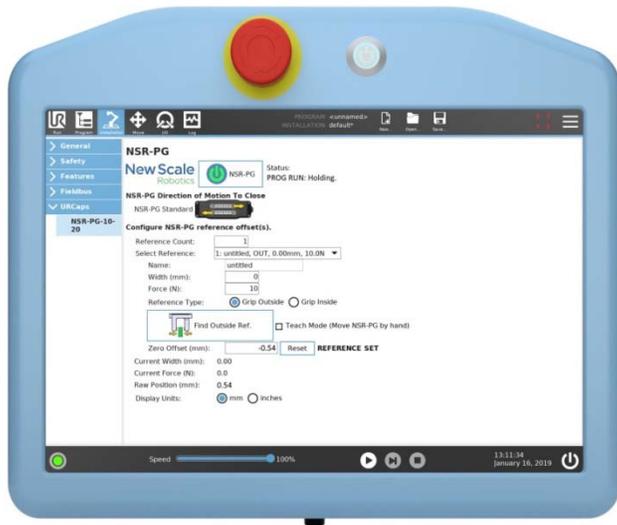
UNIVERSAL ROBOTS+ Certified

The smallest gripper for the smallest collaborative robots

Fast setup, maximum flexibility

Simply **mount the gripper** to your UR robot tool flange and **connect the single cable** to the UR tool port. Power and digital commands are received through the robot 8-pin tool interface. No other cables or electronics are needed.

The **URCaps plugin** provides seamless integration with the Universal Robots teach pendant software.

The NSR-PG ships with **factory fingers installed** so you can get right to work. You can easily swap in custom fingers using the standard flange interface.

Easy programming

Speed, force and other parameters are easily programmable using the graphical interface of the URCaps plugin.

Specifications with factory fingers

Motion and Gripping Precision		
Adjustment range of standard fingers[1]	0-52 mm	0 - 2.0 in
Travel - gripper opening range	0-20mm	0 - 0.8 in
Position resolution (typical)	10 μm	0.4 in/$_{1000}$
Position repeatability (typical) - same grip force	10 μm	0.4 in/$_{1000}$
Position accuracy, linear (typical)	20 μm	0.8 in/$_{1000}$
Speed – programmable	2 - 30 mm/s	0.1 - 1.2 in/sec
Force Control		
Grip force - programmable, bi-directional[2]	3-10 N	0.7- 2.2 lb force
Grip force resolution (max)	0.5 N	0.1 lb force
Back drive force - no power	1-3 N	0.2-0.7 lb force
Mass - gripper with standard fingers, UR mounting plate and hardware	205 grams	0.45 lb
Workpiece Mass (max recommended) [3]	100 grams	0.22 lbs
UR Robot Compatibility	g-Series UR3, UR5, UR10	
Agency Approvals	CE, RoHS	

[1] Fingers can be repositioned by loosening two screws and using mounting pin locations. Custom fingers can be installed for wider adjustment range.
[2] Gripping force is bi-directional; parts may be gripped on their inside or outside surfaces using appropriate fingers.
[3] Maximum may be higher depending on finger friction and force setting.

Visit the website for additional specifications and drawings.

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