



WEISS ROBOTICS

RPG Series

smart pneumatic gripper



The new Standard for Pneumatic Gripping.

Weiss Robotics offers the perfect symbiosis between powerful pneumatics and intelligent electronics with the new innovative gripping modules of the RPG series. For the first time the RPG integrates a gripping controller with IO-Link interface as well as valve technology and position sensing into a compact and reliable wedge-hook based pneumatic gripping module.

Quick and Clever

The gripping modules of the RPG series make the gripping process significantly faster and much more reliable as it has been with conventional grippers. The integrated controller with its optimized part detection allows a gripping rate of up to 500 gripping cycles per minute. This accelerates the handling process significantly and improves the productivity of your application.

Save 70 % Air

RPG grippers are very resource-efficient and consume far less compressed air as conventional solutions. This was made possible by relocating the valve technology from the valve terminal right into the gripping module removing the dead volume from the pneumatic path. If there has been only 1 m of hose between your valve terminal and your pneumatic gripper, you will now save more than 70 % of air with the new RPG.

Sensors included

Manual adjustable limit switches are no longer needed as the gripping modules of the RPG series are equipped with integrated position sensors providing virtual limit switches that can be parameterized comfortably via IO-Link. This reduces the hassle of wiring and adjustment of the single components and increases the long term reliability of your application.

Reliable

The long lifetime and the high precision of the RPG gripping modules are achieved by the precision grinded T-slot guides and a warp resistant construction. The continuous self diagnosis of the integrated controller guarantees the correct function of the gripping module at any time. Plant downtimes by hard to localize faults are a thing of the past.

Predictive Maintenance

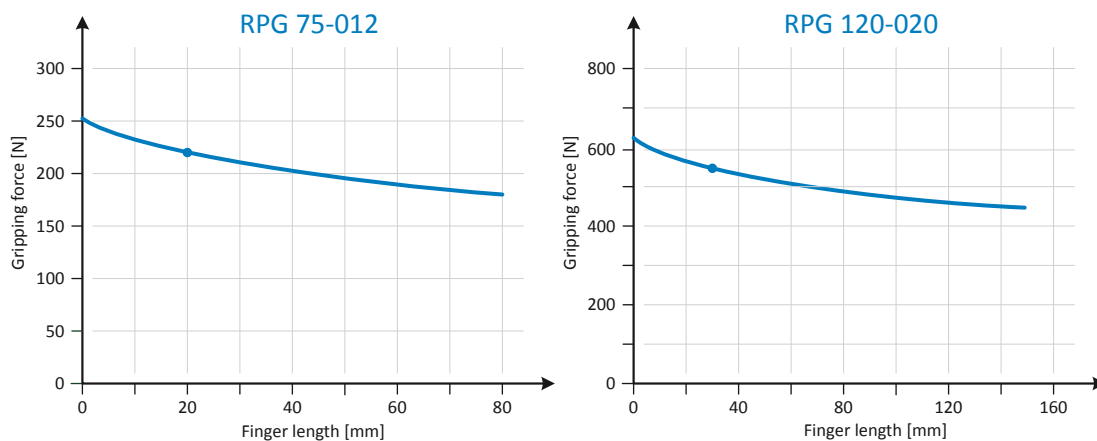
Get access to the characteristic parameters of the gripping process directly from the gripping module. The RPG provides you advanced gripping parameters via IO-Link, e.g. the actual gripping width, average closing time or the remaining gripping cycles to the next maintenance. This allows you to schedule maintenance intervals well in advance keeping your production always in optimal condition.

Technical Specification

	RPG 75-012	RPG 120-020
Stroke	12 mm	20 mm
Gripping force at nominal pressure (closing)	220 N	550 N
Grip rate ¹	500 cycles/min	380 cycles/min
Operating pressure (min. · nom. · max.)	2 bar · 6 bar · 7 bar	
Power supply	24 V / 80 mA	24 V / 150 mA
Communication	IO-Link V1.1, COM2 (38.4 kbit/s)	
Mechanical repeat accuracy	0.01 mm	
Position sensing resolution	0.1 mm	
Admissible finger length	80 mm	150 mm
Admissible finger weight	0.35 kg	1.1 kg
Protection class	IP 40	
Medium	Filtered air according to ISO 8573-1:2010 [7:4:4]	
Operating temperature	5 ... 50 °C	
Weight	320 g	960 g
Dimensions (L x W x H)	75 x 37 x 39 mm	120 x 50 x 55 mm

¹) Grip cycles per Minute over IO-Link (one cycle consists of full stroke closing and opening again), any additional delays introduced by the PLC is not considered.

Gripping Force



Typical Application

