

# 2-JAW PARALLEL GRIPPERS

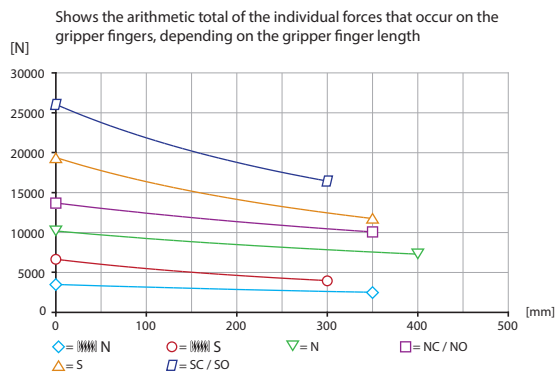
## INSTALLATION SIZE GPP5045

### PRODUCT SPECIFICATIONS

-00-A / -20-A / -21-A / -24-A

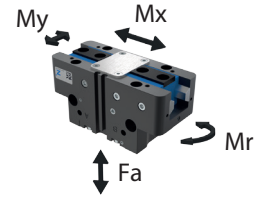
Steel / steel guide

#### Gripping force diagram



#### Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



Mr [Nm]	390
Mx [Nm]	580
My [Nm]	600
Fa [N]	11500

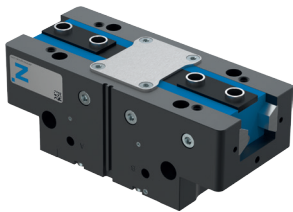
### VARIANTS

-00-A / -20-A

Steel / steel guide

-21-A / -24-A

Steel / steel guide



## TECHNICAL DATA

	Technical data					
Order no.	GPP5045N-00-A	GPP5045NC-00-A	GPP5045NO-00-A	GPP5045S-00-A	GPP5045SC-00-A	GPP5045SO-00-A
Stroke per jaw [mm]	45	45	45	26	26	26
Gripping force in closing [N]	10200	13700		19400	26050	
Gripping force in opening [N]	10700		14200	20300		26950
Gripping force secured by spring min. [N]		3500	3500		6650	6650
Closing time [s]	0.55	0.45	0.7	0.55	0.45	0.7
Opening time [s]	0.55	0.7	0.45	0.55	0.7	0.45
Permissible weight per jaw max [kg]	17	17	17	17	17	17
Length of the gripper fingers max. [mm]	400	350	350	350	300	300
Repetition accuracy +/- [mm]	0.05	0.05	0.05	0.05	0.05	0.05
Operating pressure min. [bar]	3	4	4	3	4	4
Operating pressure max. [bar]	8	6.5	6.5	8	6.5	6.5
Nominal operating pressure [bar]	6	6	6	6	6	6
Operating temperature [°C]	-10 ... +90	-10 ... +90	-10 ... +90	-10 ... +90	-10 ... +90	-10 ... +90
Air volume per cycle [cm <sup>3</sup> ]	2420	4400	4400	2420	4400	4400
Protection to IEC 60529	IP64	IP64	IP64	IP64	IP64	IP64
Protected against corrosion	Yes	Yes	Yes	Yes	Yes	Yes
Weight [kg]	33	40.5	40.5	34	41.5	41.5

	Technical Data - High Temperature Version					
Order no.	GPP5045N-20-A	GPP5045NC-20-A	GPP5045NO-20-A	GPP5045S-20-A	GPP5045SC-20-A	GPP5045SO-20-A
Operating temperature [°C]	-10 ... +130	-10 ... +130	-10 ... +130	-10 ... +130	-10 ... +130	-10 ... +130

	Technical Data - Protector Version					
Order no.	GPP5045N-21-A	GPP5045NC-21-A	GPP5045NO-21-A	GPP5045S-21-A	GPP5045SC-21-A	GPP5045SO-21-A
Protection to IEC 60529	IP67*	IP67*	IP67*	IP67*	IP67*	IP67*
Weight [kg]	41.5	49	49	42.5	50	50

	Technical Data - High Temperature Protector Version					
Order no.	GPP5045N-24-A	GPP5045NC-24-A	GPP5045NO-24-A	GPP5045S-24-A	GPP5045SC-24-A	GPP5045SO-24-A
Operating temperature [°C]	-10 ... +130	-10 ... +130	-10 ... +130	-10 ... +130	-10 ... +130	-10 ... +130
Protection to IEC 60529	IP67*	IP67*	IP67*	IP67*	IP67*	IP67*
Weight [kg]	41.5	49	49	42.5	50	50

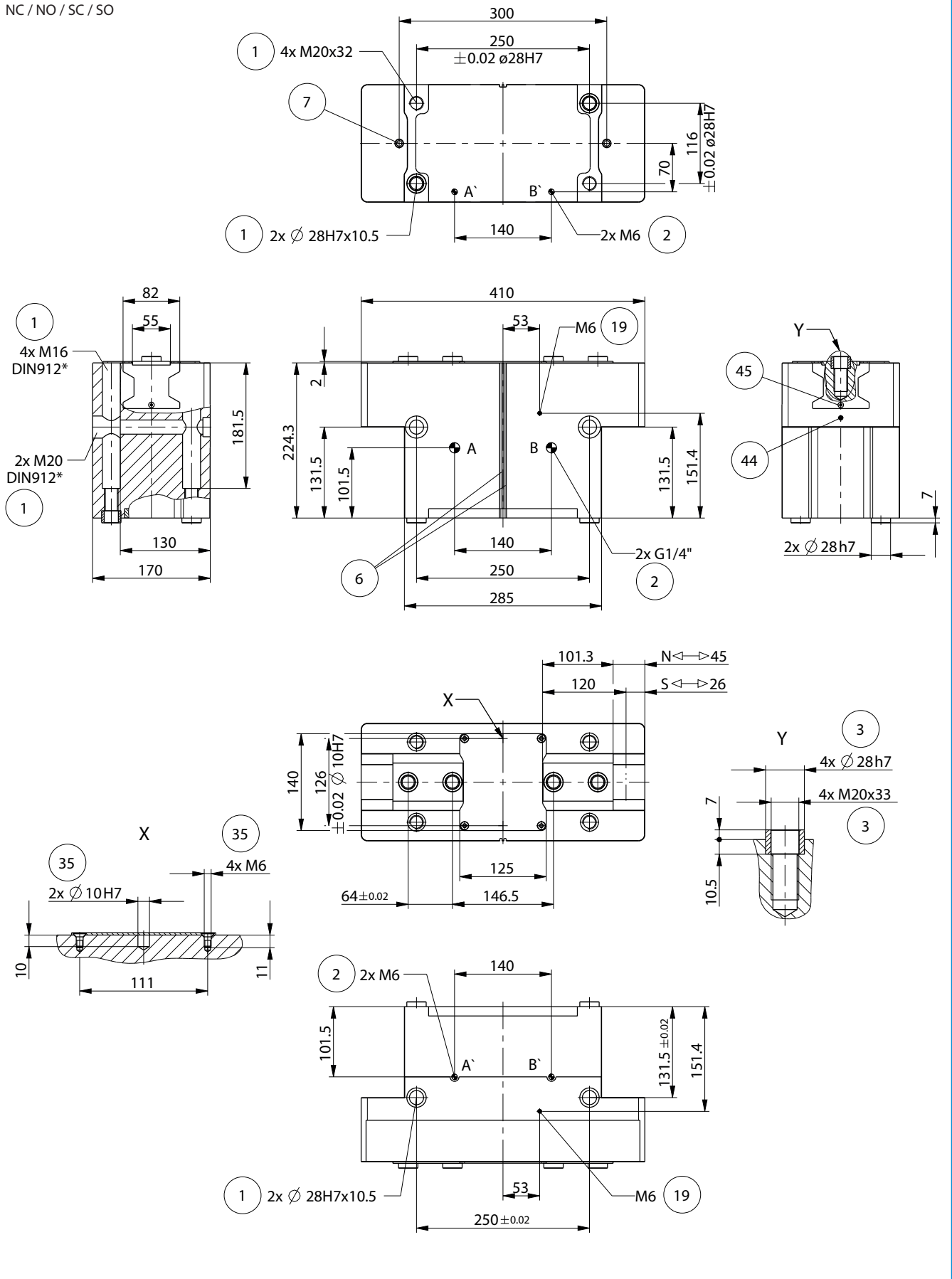
\*with purged air (max. 0,5 bar)

# 2-JAW PARALLEL GRIPPERS

## INSTALLATION SIZE GPP5045

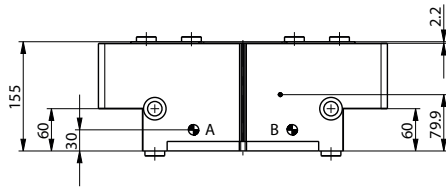
### TECHNICAL DRAWINGS

NC / NO / SC / SO

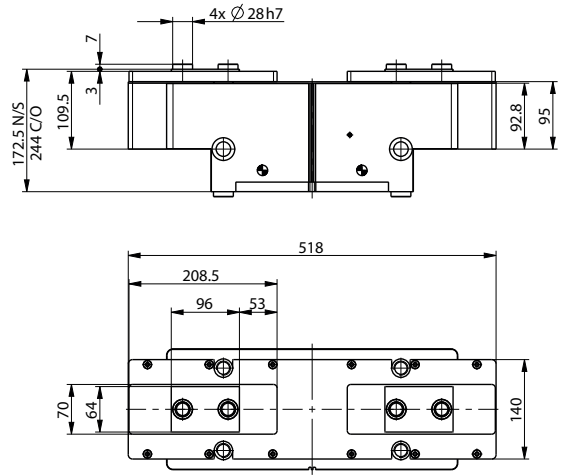


## TECHNICAL DRAWINGS

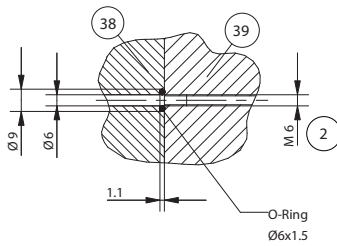
N / S



Protector version



Hoseless air feed-through M6



**1** Gripper attachment

**2** Energy supply

**3** Fixing for gripper finger

**6** Integrated slot for magnetic field sensor

**7** Mounting block

**bu** Air purge connection option (max. 0,5 bar)

**dq** Attachment option for customer-specific fittings

**dt** Adapter

**du** Gripper

**ep** Clamp for sensor

**eq** Switch cam adjustment

**A** Air connection (close)

**B** Air connection (open)

**K** Air connection, alternative (close)

**L** Air connection, alternative (open)

# 2-JAW PARALLEL GRIPPERS

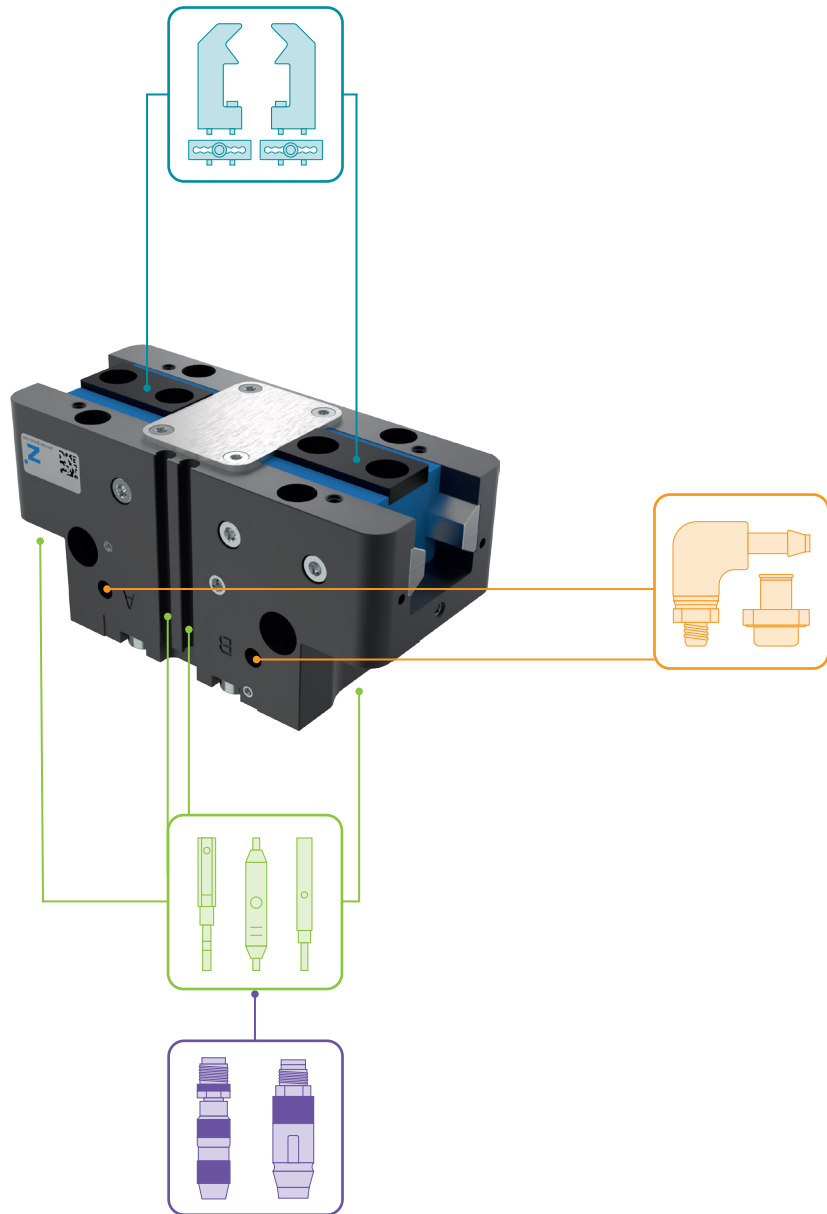
## INSTALLATION SIZE GPP5045

### ACCESORIES

1

Grippers

Installation size GPP5045 / 2-Jaw Parallel Grippers / pneumatic /



### INCLUDED IN DELIVERY



6 [piece]  
Centering Disc

036784

## RECOMMENDED ACCESSORIES



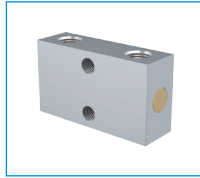
### ENERGY SUPPLY



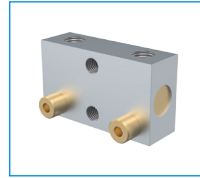
**GV1-4X8**  
Straight Fittings - Quick  
Connect Style



**WV1-4X8**  
Angled Fittings - Quick  
Connect Style



**DSV1-4**  
Pressure safety valve



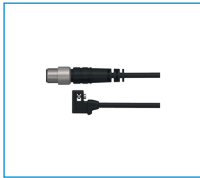
**DSV1-4E**  
Pressure safety valve with  
quick exhaust



### SENSORS



**NJ8-E2S**  
Inductive proximity switch  
- Connector M8



**MFS01-S-KHC-P1-PNP**  
Magnetic field sensor Angled  
Cable 0,3 m - Connector M8



**MFS02-S-KHC-P1-PNP**  
Magnetic field sensor Straight  
Cable 0,3 m - Connector M8



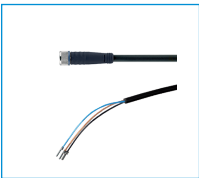
**MFS01-S-KHC-P2-PNP**  
2-Position-Sensor Cable  
0,3 m - Connector M8



**MFS02-S-KHC-P2-PNP**  
2-Position-Sensor Cable  
0,3 m - Connector M8



### CONNECTIONS / OTHER



**KAG500**  
Plug-in connector Straight Ca-  
ble 5m - Socket M8 (female)



**S8-G-3**  
Plug-in connector customiz-  
able Straight - Connector M8

# 2-JAW PARALLEL GRIPPERS

## SERIES GPP5000

### PRODUCT ADVANTAGES

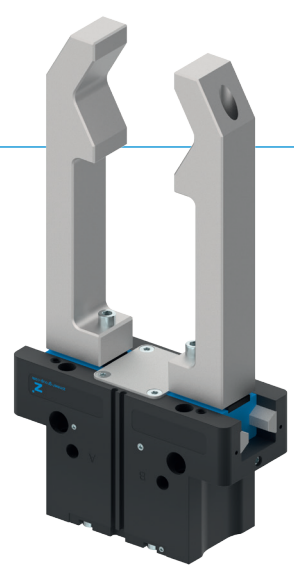
1

Grippers

Series GPP5000 / 2-Jaw Parallel Grippers / pneumatic /



reddot design award winner 2018



#### "The best"

##### Steel Linear Guide –

##### The superior guidance system concept

The steel / steel guide stands for lasting precision, durability and a long service life—featuring maintenance intervals of up to 30 million gripping cycles. Benefit from these features and increase the profitability and process reliability of your machine.

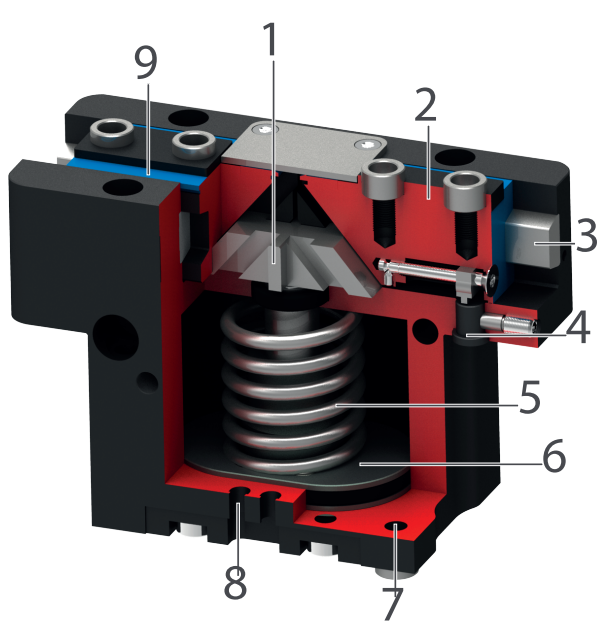
##### Leakproof and corrosion protected – The universal gripper

Suitable for virtually all ambient conditions, with a sealed guide up to IP67 and corrosion protection as standard, you are able to use this gripper universally. As a result, the range of models in your production is reduced, along with a reduction in associated storage and process costs.

##### Aluminum Linear Guide – The alternative

Reduced to those aspects which are the most important, the steel / aluminum guide variant offers significantly better performance when compared to a similar gripper with a T-groove travel guide, and is on par with the best principles of toothed guidance systems.

### BENEFITS IN DETAIL



- 1 Wedge hook mechanism
  - Supports to absorb high forces and moments
  - Synchronized gripper jaw movement
- 2 Gripper jaw
  - Gripper fingers mounted using removable centering sleeves
  - Lubricated for life via incorporated lubrication slots
- 3 Steel Linear Guide
  - Steel in steel guide
  - Enables use of extremely long gripper fingers
  - Also available in steel / aluminum variant
- 4 Mounting block
  - mounting for inductive proximity switch
- 5 Integrated gripping force safety device
  - Spring built into cylinder chamber as an energy store
- 6 Drive
  - Double-acting pneumatic rotor cylinder
- 7 Mounting and positioning
  - Alternatively, on several sides for customized mounting
  - Pneumatic and electrical versions identical apart from height
- 8 Sensing slot
  - mounting and positioning of magnetic field sensors
- 9 Dual lip seal
  - IP64 and up to IP67 (with purged air) for Protector version
  - Prevents grease from being squeezed out, increasing service life



## SERIES CHARACTERISTICS

Installation size		Variants				
GPP50XX		-00	-20	-21	-24	-AL
N	Long stroke	●	●	●	●	●
NC	Long stroke / Spring closing	●	●	●	●	●
NO	Long stroke / Spring opening	●	●	●	●	●
S	High-strength	●	●	●	●	
SC	High-strength / Spring closing	●	●	●	●	
SO	High-strength / Spring opening	●	●	●	●	
	Steel / steel guide	●	●	●	●	
	Steel / aluminum guide					●
	15 million maintenance-free cycles (max.)					●
	30 million maintenance-free cycles (max.)	●	●	●	●	
	Inductive sensor	●	●	●	●	
	<b>Magnetic field sensor</b>	●	●	●	●	●
	Protected against corrosion	●	●	●	●	
	Purged air	●	●	●	●	●
	Temperature-resistant		●		●	
	IP40					●
	IP64	●	●			
	IP67*			●	●	

\*with purged air (max. 0,5 bar)

## TECHNICAL DATA

Installation size	Stroke per jaw [mm]	Gripping force [N]	Weight [kg]	IP class
GPP5003	2,5	140 - 205	0,08 - 0,12	IP40 / IP64 / IP67*
GPP5004	2 - 4	200 - 630	0,15 - 0,3	IP40 / IP64 / IP67*
GPP5006	3 - 6	330 - 1080	0,28 - 0,44	IP40 / IP64 / IP67*
GPP5008	4 - 8	520 - 1670	0,53 - 0,76	IP40 / IP64 / IP67*
GPP5010	5 - 10	885 - 2890	0,85 - 1,31	IP40 / IP64 / IP67*
GPP5013	6 - 13	1410 - 4400	1,5 - 2,26	IP64 / IP67*
GPP5016	8 - 16	2090 - 6600	2,9 - 4,4	IP64 / IP67*
GPP5025	14 - 25	3280 - 9130	6,1 - 8,75	IP64 / IP67*
GPP5030	17 - 30	5000 - 13550	9,2 - 13,7	IP64 / IP67*
GPP5035	20 - 35	6100 - 15900	15,8 - 23,3	IP64 / IP67*
GPP5045	26 - 45	10200 - 26950	33 - 50	IP64 / IP67*

\*with purged air (max. 0,5 bar)