



Superior Clamping and Gripping

## **Product Information**

Hole grippers LOG

# **Cost-effective. Smooth. Reliable.** Hole gripper LOG

Light gripper made of very resistant polyamide with closed diaphragm system

### **Field of application**

Particularly suitable for highly dynamic applications with a low workpiece weight, for handling of small components and plastic parts, as well as for sand core handling



### Advantages – Your benefits

Low weight allows high dynamics in the application Closed membrane system and internal stop protect the expansion membrane against damage Short delivery time for customized measurements

Long service life enables long-lasting economical use

Air supply via hose-free direct connection or screw connections for flexible pressure supply in all automated systems









### **Functional description**

The membrane expands when pressure is applied, creating a synchronized movement of the gripping surfaces.



- ① Air connection thread
- ② Mounting threads
- **③** Gripping surface

- O-ring seal for hose-free direct connection
- **5** Membrane
- **6** Internal stop/overload protection

### General notes about the series

**Operating principle:** Membrane

Housing material: PA 12

Base jaw material: PA 12

Actuation: pneumatic, with filtered compressed air as per ISO 8573-1:2010 [7:4:4].

**Scope of delivery:** Assembly instructions (operating manual with declaration of incorporation is available online)

Gripping force maintenance: not possible



### **Application example**

Handling of gears with different diameters

1 Hole gripper LOG

2 Customized adapter plate

### SCHUNK offers more ...

The following components make the product LOG even more productive – the suitable addition for the highest functionality, flexibility, reliability, and controlled production.







Universal gripper

Miniature swivel unit





Linear module



Pressure maintenance valve

1 10 - 0°

Compensation unit



Manual change system

For more information on these products can be found on the following product pages or at schunk.com. Please contact us: SCHUNK technical hotline +49-7133-103-2696

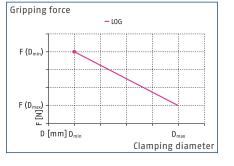
### **Options and special information**

Additional sizes and customized designs are available upon request

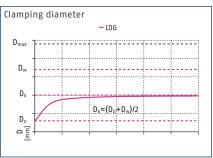




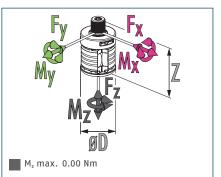
#### Gripping force I.D. gripping



#### **Creep properties**



#### **Dimensions and maximum loads**



The indicated moments and forces are statical values and should not appear simultaneously.

#### **Technical data**

Description		LOG 20.0-M14x1.5-M5	LOG 40.0-M16x1-M5	LOG 60.0-M16x1-M5	LOG 80.0-M20x1.5-G1/8	LOG 99.0-M20x1.5-G1/8
ID		0398920	0398940	0398960	0398980	0398999
Mounting thread A		M14 x 1.5	M16x1	M16x1	M20x1.5	M20x1.5
Air connection thread B		M5	M5	M5	G1/8"	G1/8"
Min. workpiece diameter	[mm]	20	40	60	80	99
Max. workpiece diameter	[mm]	20.3	44.37	66.13	88.7	110.7
Opening force for Ø D <sub>min</sub>	[N]	107.2	241.4	596.7	972.7	2516.7
Opening force for Ø D <sub>max</sub>	[N]	27.3	66.7	190.5	433.3	1166.7
Weight	[kg]	0.008	0.034	0.108	0.238	0.44
Recommended workpiece weight	[kg]	0.55	1.23	3.04	4.96	12.83
Fluid consumption double stroke	[cm³]	2.35	8.21	28.82	65.34	122.8
Max. operating pressure	[bar]	6	6	6	6	6
Nominal operating pressure	[bar]	6	6	6	6	6
Closing/opening time	[s]	0.05/0.05	0.08/0.08	0.14/0.14	0.22/0.22	0.44/0.44
Min./max. ambient temperature	[°C]	-40/80	-40/80	-40/80	-40/80	-40/80
Housing material		PA 12	PA 12	PA 12	PA 12	PA 12
Dimensions Ø D ± 0.2 x Z	[mm]	19.8 x 29	39.6 x 47	59.4 x 70.5	79.2 x 94	98.01 x 116.33
Moments M <sub>x</sub> max./M <sub>y</sub> max.	[Nm]	1.50/1.50	2.00/2.00	2.00/2.00	2.50/2.50	2.50/2.50
Forces F <sub>x</sub> max./F <sub>y</sub> max./F <sub>z</sub> max.	[N]	150.00/150.00/150.00	200.00/200.00/200.00	200.00/200.00/200.00	250.00/250.00/250.00	250.00/250.00/250.00

The gripping force can be set directly by the operating pressure. At a lower pressure than the nominal operating pressure, the full stroke cannot be achieved.

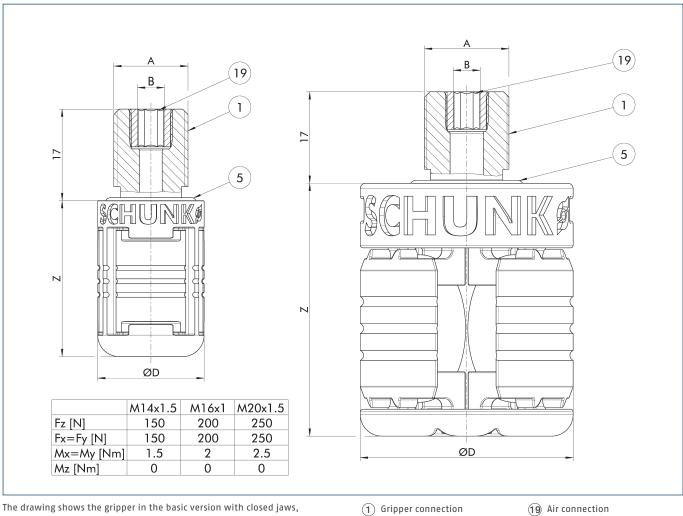
The size graduation varies by 1 mm respectively. Please note that the fastening thread A is independent of the size. (LOG 20-25: M14x1.5; LOG 26-63: M16x1; LOG 64-99: M20x1.5)

Information about other sizes can be found online.

## LOG 20 - 99

Hole grippers

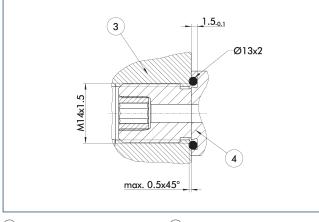
#### Main view



without dimensional consideration of the options described below.

() You will find dimensions A, B, D, and Z in the technical data table.

#### Hose-free direct connection M14x1.5



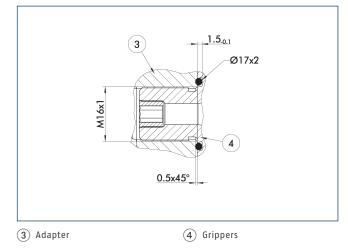
(3) Adapter

(4) Grippers

The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

(5) 0-ring

#### Hose-free direct connection M16x1

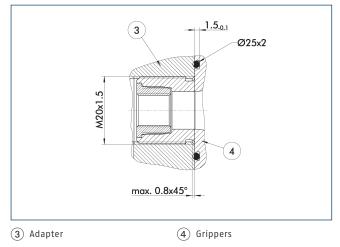


The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

### LOG 20 - 99

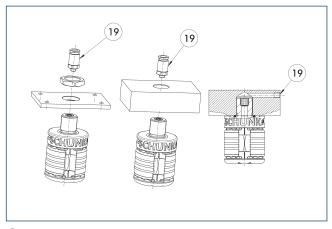
Hole grippers

#### Hose-free direct connection M20x1.5



The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

#### **Connection possibilities**



(19) Air connection

The LOG can be easily screwed in by a through-bore with lock nut or directly into an adapter plate.



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Jens Lehmann, German goalkeeper legend, SCHUNK brand ambassador since 2012 for safe, precise gripping and holding. schunk.com/Lehmann

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