2-Finger Parallel Gripper
Sealed gripper

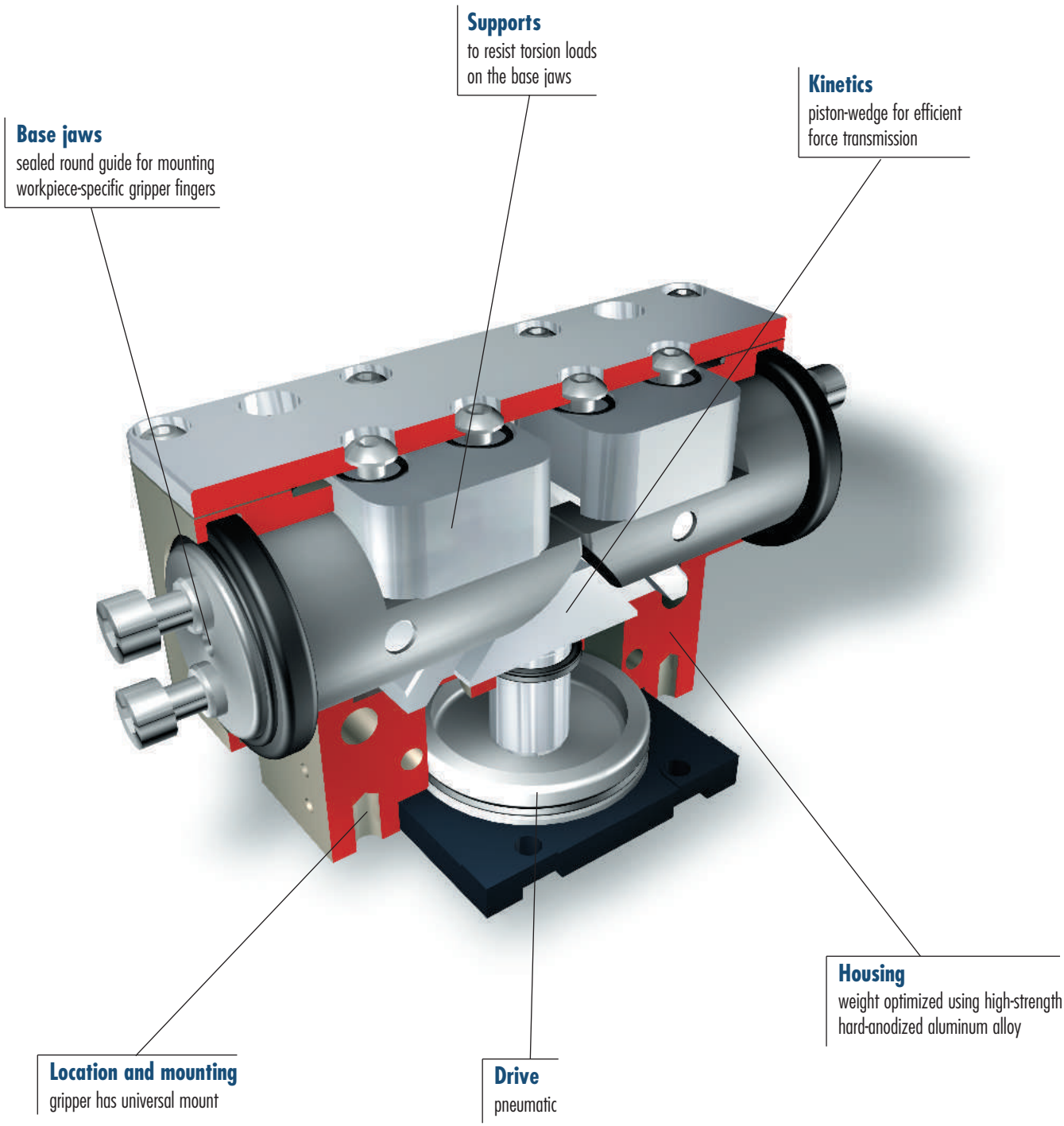


Illustration with finger blanks type AAB (shortened)

Benefits

- 2 finger parallel gripper with completely sealed guides, e.g. for extreme applications with coolant or grinding dust
- No “pump effect” due to positive pressure during actuation
- Compact design
- Very light weight
- High gripping forces
- Very reliable and long-wearing
- High repeatability
- For O.D. and I.D. gripping
- Universal connection
- Monitoring of 2 finger positions via inductive proximity switches
- Detailed operating and maintenance instructions
- 12 month warranty

Technical data

Operating principle:
wedge and piston design with mechanically restricted guides

Material:
the housing is high-tensile, hard-coated aluminum alloy. Functional components are hardened steel. Seals are basic polyurethane (U28). Viton available on request

Operation:
pneumatic, filtered compressed air (10 µm [0.393 mils]), dry or lubricated

Operating pressure range:
from 3 to 8 bar [44 to 116 psi] (I.D. gripping max. 4 bar [58 psi])

Installation:
various positions

Operating temperature range:
from –10 °C to 90 °C [14 °F to 194 °F]. Version suitable for use up to 130 °C [266 °F] available on request

Parts supplied:
bracket for proximity switches, operating and maintenance instructions, manufacturer’s declaration

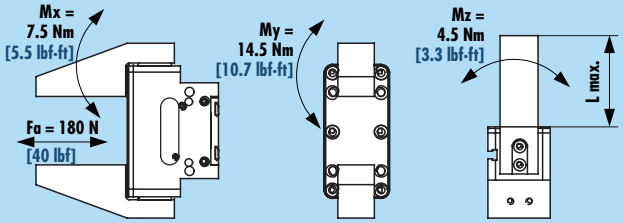
Gripping force safety in the event of a power failure:
option with integrated spring or pressure maintenance valve

Accessories:
proximity switches, finger blanks

Sensors NPN:
Sensors in NPN version available on request

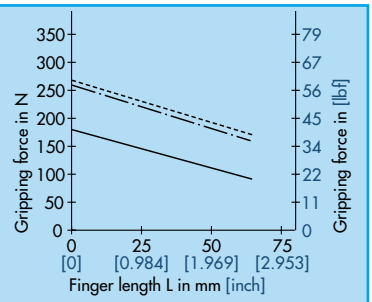
DPG 64

Max. admissible forces and moments at the gripper fingers *



Gripping force diagram

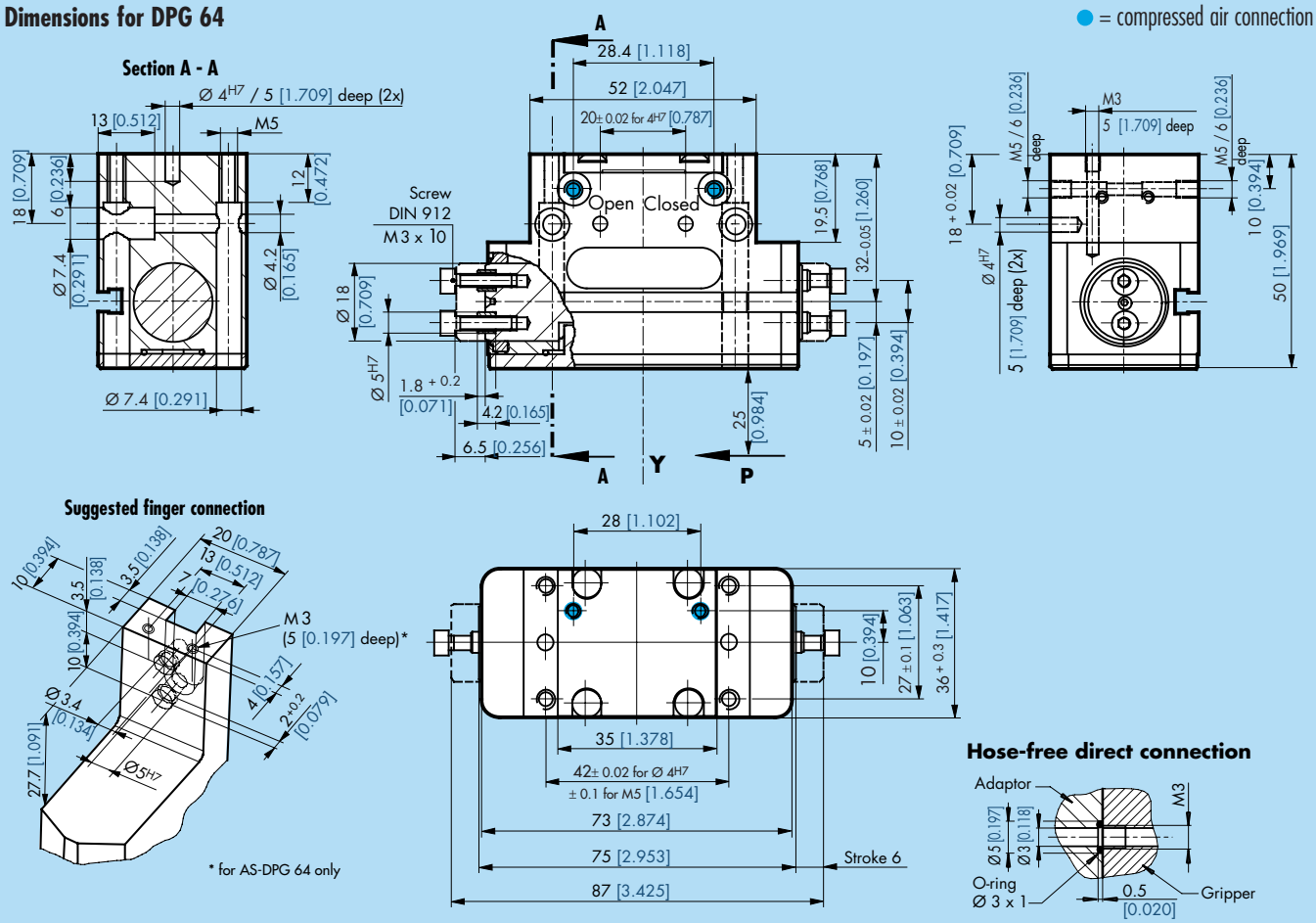
In relation to the finger length L at 6 bar [87 psi]



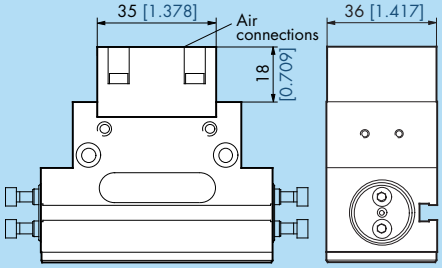
* which may occur in addition to the gripping force

Dimensions for DPG 64

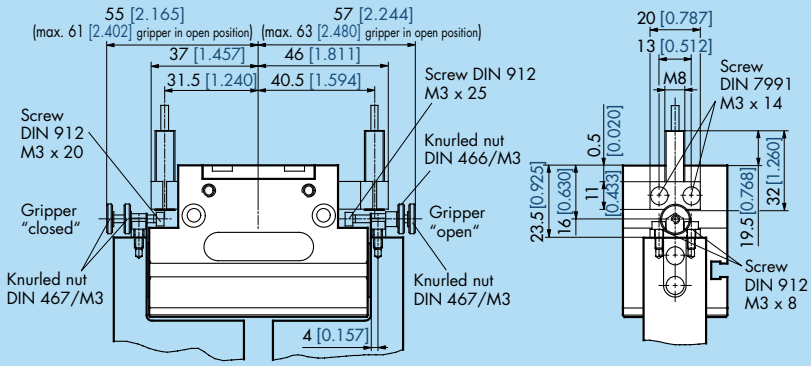
● = compressed air connection



Different dimensions for Standard-DPG with spring housing



Mounting kit (Type AS-DPG 64) for mounting inductive proximity switches INW 80/S



DPG 64

2-Finger Parallel Gripper DPG 64
2-Finger Parallel Gripper DPG 64 with mechanical grip force safety device: O.D. gripping (AS)

Type		DPG 64	DPG 64 AS
Id.-No.		**370 251**	**370 261**
Stroke per finger	mm [inch]	6 [0.236]	6 [0.236]
Gripping force at 6 bar [87 psi]*	N [lbf]	130 [29]	220 [49]
Workpiece weight (recommended) **	kg [lbs]	0.65 [1.433]	0.65 [1.433]
Air consumption per double stroke	cm^3 [$inch^3$]	10 [0.610]	10 [0.610]
Opening time		0.03 s	0.03 s
Closing time		0.04 s	0.05 s
Mass	kg [lbs]	0.43 [0.948]	0.51 [1.124]
Own mass moment of inertia I_y	kg cm^2 [lb·$inch^2$]	2.0 [0.684]	2.6 [0.889]
Repeatability ***	mm [inch]	0.01 [0.0004]	0.01 [0.0004]
Max. finger length	mm [inch]	64 [2.520]	64 [2.520]
Gripping force maintained by spring *	N [lbf]		70 [16]
Closing time with spring only			0.09 s

* Gripping force is the arithmetic sum of the individual forces occuring at the jaws at distance "P" at 6 bar [87 psi].
** Value at $\mu = 0.1$ and $\upsilon = 2$. Values are higher with form fit fingers. Please also consider the gripping force maintained by spring.
*** After 100 consecutive strokes worst case.

Gripping force safety
Operating pressure min. 4 bar [60 psi], max. 6.5 bar [94 psi].
Gripping force = pneumatic gripping force + spring force

Note: Pressure maintenance valve SDV-P can be used as an alternative to mechanical gripping force safety device for O.D. and I.D. gripping.
(See chapter "Accessories")

Accessories for DPG 64

Electro magnetic switch
Easy to fit and can be concealed in the T-groove in the housing. For technical details see chapter "Accessories".

Type	Id.-No.
INS 30/S*	**301 510**

* S = Normally open

Inductive proximity switches
Optional monitoring using proximity switches (uses 2 closers). Special mounting kit required. For technical details see chapter "Accessories".

Type	Id.-No.
AS-DPG 64	**300 706**
INW 80/S*	**301 508** or **301 408**

* S = Normally open

Finger blanks
For dimensions and design see chapter "Accessories".

Type	Material	Id.-No.
AAB 64	Aluminum	**300 745**

System modules and additional accessories for DPG

Swivel units
For compatible swivel units and swivel heads see chapter "Swivel Units".

Linear units
For compatible linear units see chapter "Linear Units".

Custom solutions
We can supply cost-effective custom solutions, customized fingers, adapter plates and complete units to suit your specialized requirements quickly.

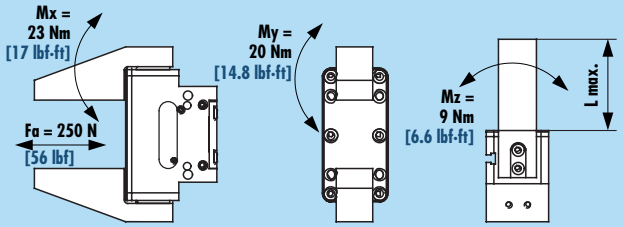
Additional accessories
Gripper pads to increase friction factors, pressure maintenance valves or multiple connectors for proximity switches are found in our chapter "Accessories".

Gripper changing systems
For compatible gripper changing systems see chapter "Robot Accessories".

Compensation units
For compatible compensation units see chapter "Robot Accessories".

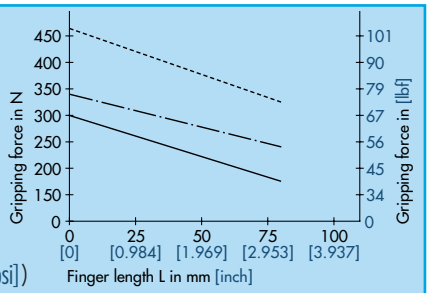
DPG 80

Max. admissible forces and moments at the gripper fingers *



Gripping force diagram

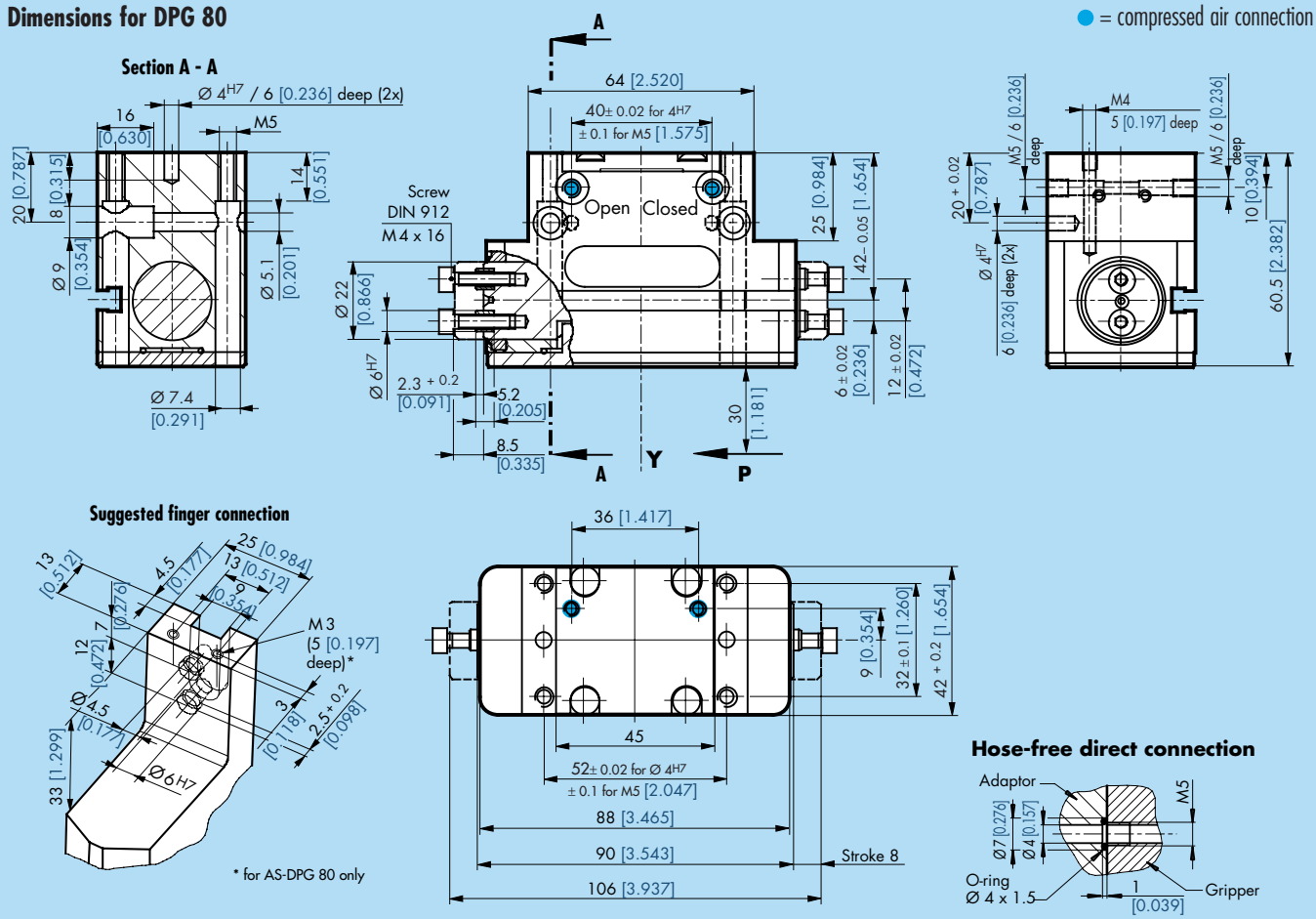
In relation to the finger length L at 6 bar [87 psi]



* which may occur in addition to the gripping force

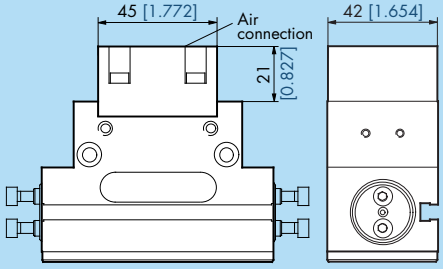
Dimensions for DPG 80

● = compressed air connection

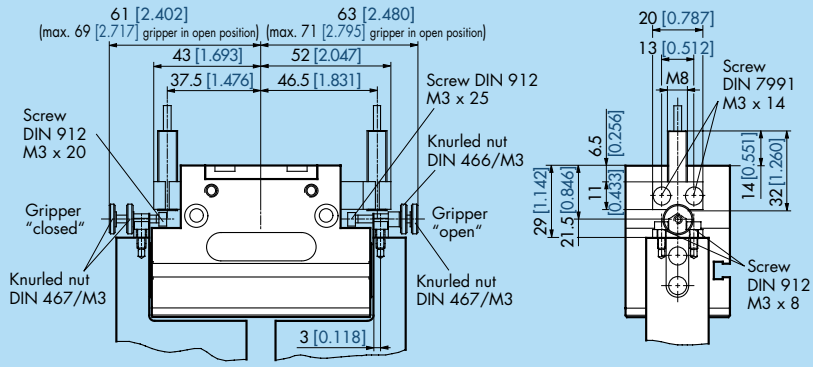


Hose-free direct connection

Different dimensions for Standard-DPG with spring housing



Mounting kit (Type AS-DPG 80) for mounting inductive proximity switches INW 80/S



DPG 80

2-Finger Parallel Gripper DPG 80
2-Finger Parallel Gripper DPG 80 with mechanical grip force safety device: O.D. gripping (AS)

Type		DPG 80	DPG 80 AS
Id.-No.		**370 252**	**370 262**
Stroke per finger	mm [inch]	8 [0.315]	8 [0.315]
Gripping force at 6 bar [87 psi]*	N [lbf]	250 [56]	400 [90]
Workpiece weight (recommended) **	kg [lbs]	1.25 [2.756]	1.25 [2.756]
Air consumption per double stroke	cm^3 [$inch^3$]	20 [1.220]	20 [1.220]
Opening time		0.05 s	0.05 s
Closing time		0.04 s	0.04 s
Mass	kg [lbs]	0.72 [1.587]	0.82 [1.808]
Own mass moment of inertia I_y	kg cm^2 [lb·$inch^2$]	11 [3.760]	12 [4.102]
Repeatability ***	mm [inch]	0.01 [0.0004]	0.01 [0.0004]
Max. finger length	mm [inch]	80 [3.150]	80 [3.150]
Gripping force maintained by spring *	N [lbf]		120 [27]
Closing time with spring only			0.09 s

* Gripping force is the arithmetic sum of the individual forces occuring at the jaws at distance "P" at 6 bar [87 psi].
** Value at $\mu = 0.1$ and $\upsilon = 2$. Values are higher with form fit fingers. Please also consider the gripping force maintained by spring.
*** After 100 consecutive strokes worst case.

Gripping force safety
Operating pressure min. 4 bar [60 psi], max. 6.5 bar [94 psi].
Gripping force = pneumatic gripping force + spring force

Note: Pressure maintenance valve SDV-P can be used as an alternative to mechanical gripping force safety device for O.D. and I.D. gripping.
(See chapter "Accessories")

Accessories for DPG 80

Electro magnetic switch
Easy to fit and can be concealed in the T-groove in the housing. For technical details see chapter "Accessories".

Type	Id.-No.
INS 30/S*	**301 510**

* S = Normally open

Inductive proximity switches
Optional monitoring using proximity switches (uses 2 closers). Special mounting kit required. For technical details see chapter "Accessories".

Type	Id.-No.
AS-DPG 80	**300 706**
INW 80/S*	**301 508** or **301 408**

* S = Normally open

Finger blanks
For dimensions and design see chapter "Accessories".

Type	Material	Id.-No.
AAB 80	Aluminum	**300 746**

System modules and additional accessories for DPG

Swivel units
For compatible swivel units and swivel heads see chapter "Swivel Units".

Linear units
For compatible linear units see chapter "Linear Units".

Custom solutions
We can supply cost-effective custom solutions, customized fingers, adapter plates and complete units to suit your specialized requirements quickly.

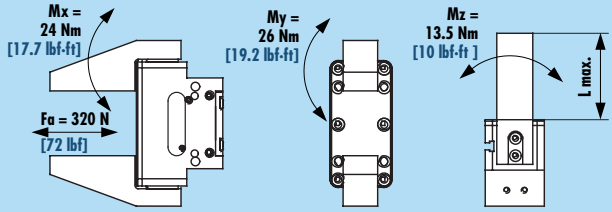
Additional accessories
Gripper pads to increase friction factors, pressure maintenance valves or multiple connectors for proximity switches are found in our chapter "Accessories".

Gripper changing systems
For compatible gripper changing systems see chapter "Robot Accessories".

Compensation units
For compatible compensation units see chapter "Robot Accessories".

DPG 100

Max. admissible forces and moments at the gripper fingers *



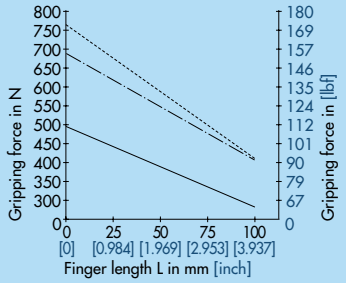
Gripping force diagram

In relation to the finger length L at 6 bar [87 psi]

------- DPG 100 / S

——— DPG 100 (O.D. gripping)

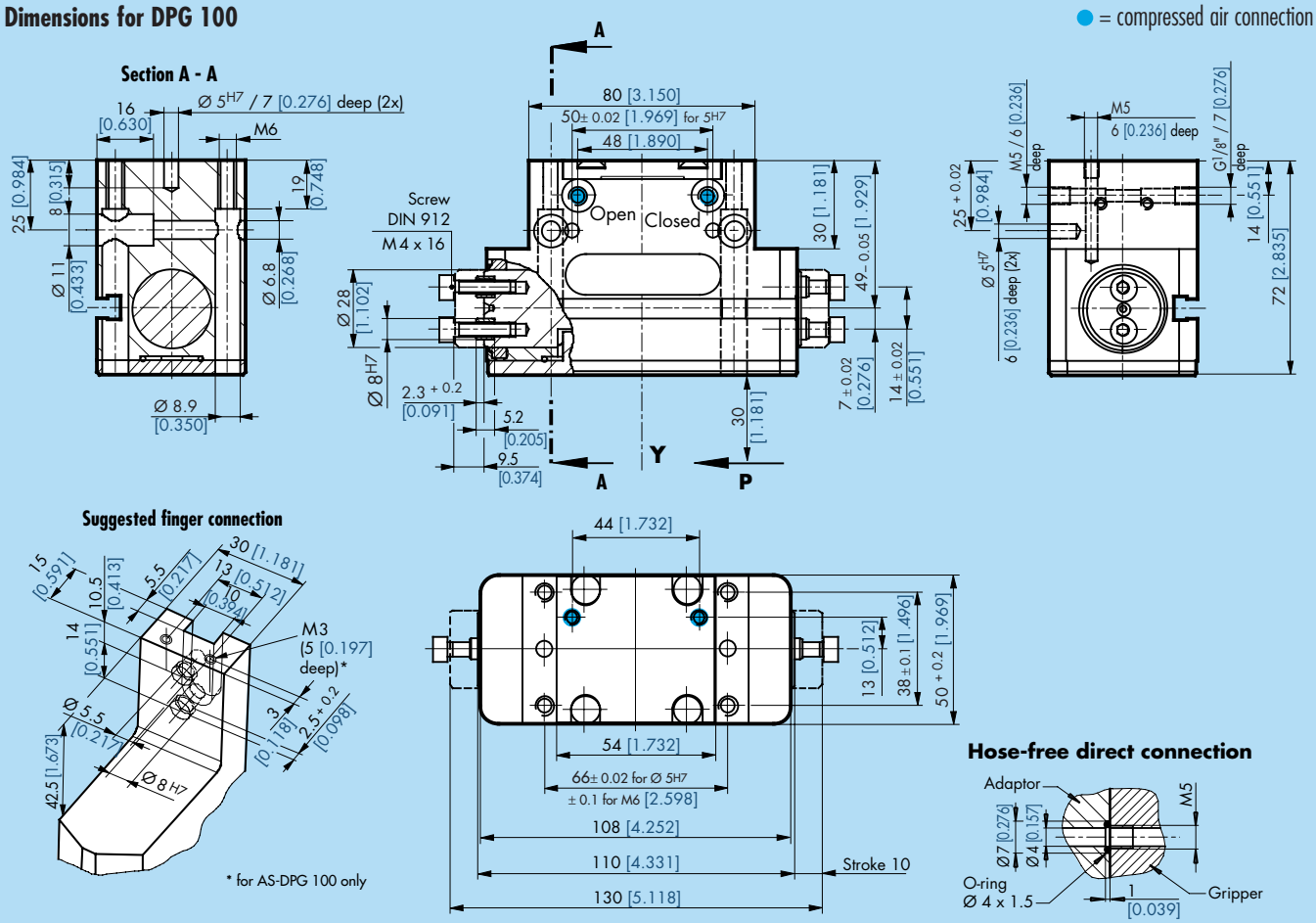
–·–·– DPG 100 (I.D. gripping at 4 bar [58 psi])



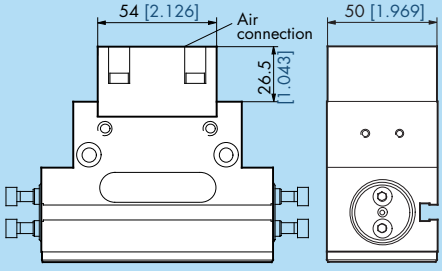
* which may occur in addition to the gripping force

Dimensions for DPG 100

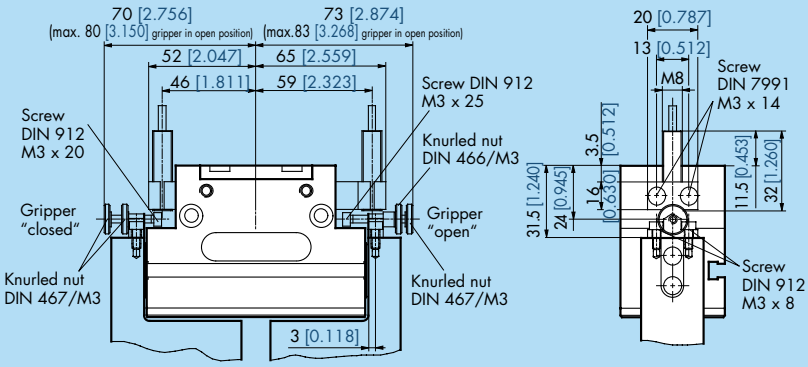
● = compressed air connection



Different dimensions for Standard-DPG with spring housing



Mounting kit (Type AS-DPG 100) for mounting inductive proximity switches INW 80/S



2-Finger Parallel Gripper DPG 100
2-Finger Parallel Gripper DPG 100 with mechanical grip force safety device: O.D. gripping (AS)

Type		DPG 100	DPG 100 AS
Id.-No.		**370 253**	**370 263**
Stroke per finger	mm [inch]	10 [0.394]	10 [0.394]
Gripping force at 6 bar [87 psi]*	N [lbf]	430 [97]	670 [151]
Workpiece weight (recommended) **	kg [lbs]	2.15 [4.740]	2.15 [4.740]
Air consumption per double stroke	cm^3 [$inch^3$]	40 [2.440]	40 [2.440]
Opening time		0.05 s	0.08 s
Closing time		0.06 s	0.06 s
Mass	kg [lbs]	1.30 [2.866]	1.48 [3.263]
Own mass moment of inertia I_y	kg cm^2 [lb·$inch^2$]	20 [6.836]	22.6 [7.725]
Repeatability ***	mm [inch]	0.01 [0.0004]	0.01 [0.0004]
Max. finger length	mm [inch]	100 [3.937]	100 [3.937]
Gripping force maintained by spring *	N [lbf]		180 [41]
Closing time with spring only			0.11 s

* Gripping force is the arithmetic sum of the individual forces occuring at the jaws at distance "P" at 6 bar [87 psi].
** Value at $\mu = 0.1$ and $\upsilon = 2$. Values are higher with form fit fingers. Please also consider the gripping force maintained by spring.
*** After 100 consecutive strokes worst case.

Gripping force safety
Operating pressure min. 4 bar [60 psi], max. 6.5 bar [94 psi].
Gripping force = pneumatic gripping force + spring force

Note: Pressure maintenance valve SDV-P can be used as an alternative to mechanical gripping force safety device for O.D. and I.D. gripping.
(See chapter "Accessories")

Accessories for DPG 100

Electro magnetic switch
Easy to fit and can be concealed in the T-groove in the housing. For technical details see chapter "Accessories".

Type	Id.-No.
INS 30/S*	**301 510**

* S = Normally open

Inductive proximity switches
Optional monitoring using proximity switches (uses 2 closers). Special mounting kit required. For technical details see chapter "Accessories".

Type	Id.-No.
AS-DPG 100	**300 707**
INW 80/S*	**301 508** or **301 408**

* S = Normally open

Finger blanks
For dimensions and design see chapter "Accessories".

Type	Material	Id.-No.
AAB 100	Aluminum	**300 747**

System modules and additional accessories for DPG

Swivel units
For compatible swivel units and swivel heads see chapter "Swivel Units".

Linear units
For compatible linear units see chapter "Linear Units".

Custom solutions
We can supply cost-effective custom solutions, customized fingers, adapter plates and complete units to suit your specialized requirements quickly.

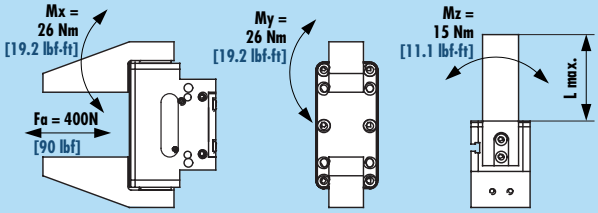
Additional accessories
Gripper pads to increase friction factors, pressure maintenance valves or multiple connectors for proximity switches are found in our chapter "Accessories".

Gripper changing systems
For compatible gripper changing systems see chapter "Robot Accessories".

Compensation units
For compatible compensation units see chapter "Robot Accessories".

DPG 125

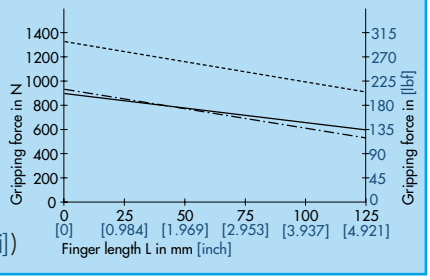
Max. admissible forces and moments at the gripper fingers *



Gripping force diagram

In relation to the finger length
L at 6 bar [87 psi]

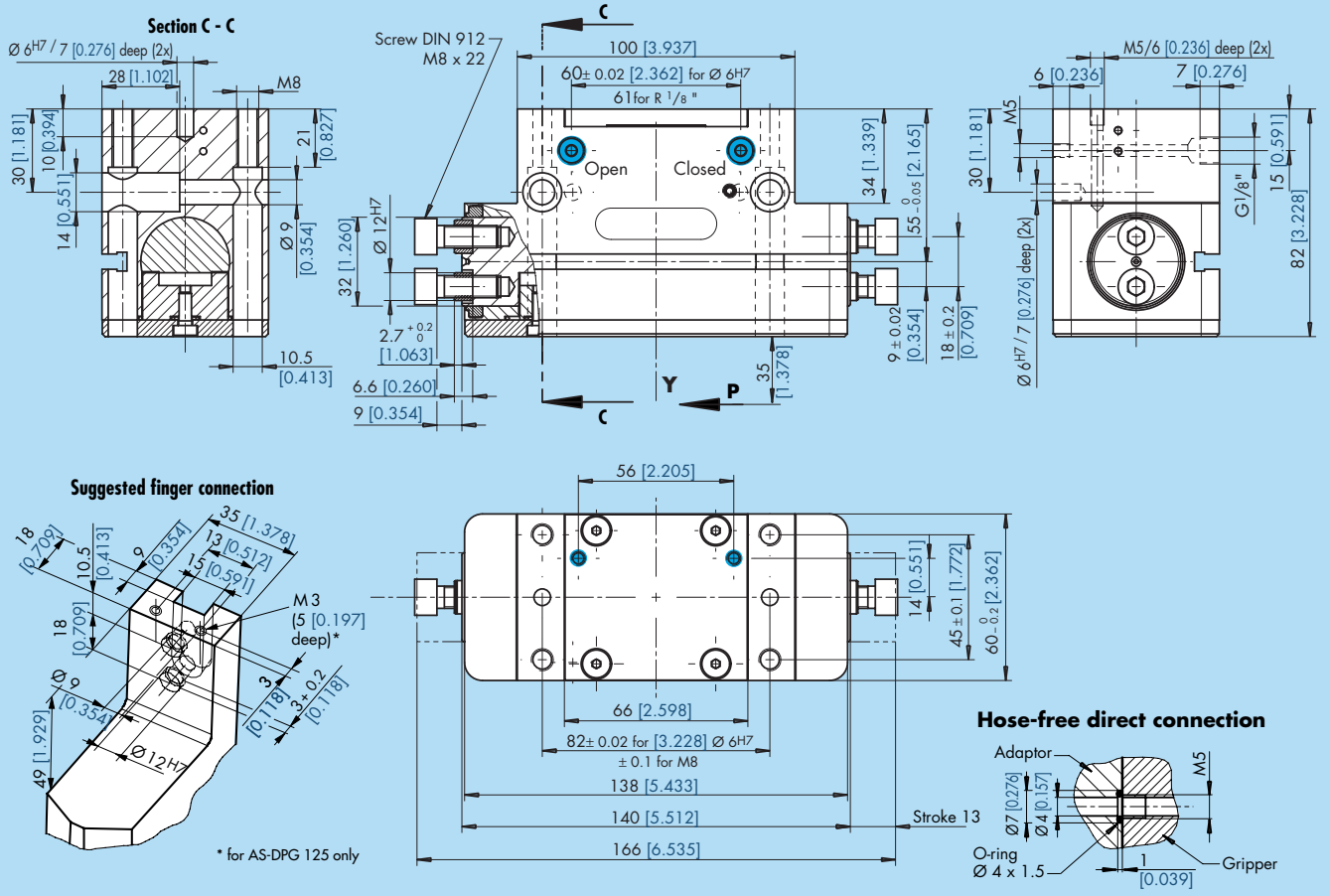
- DPG 125 / S
- DPG 125 (O.D. gripping)
- DPG 125 (I.D. gripping at 4 bar [58 psi])



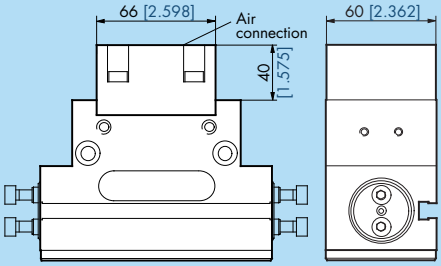
* which may occur in addition to the gripping force

Dimensions for DPG 125

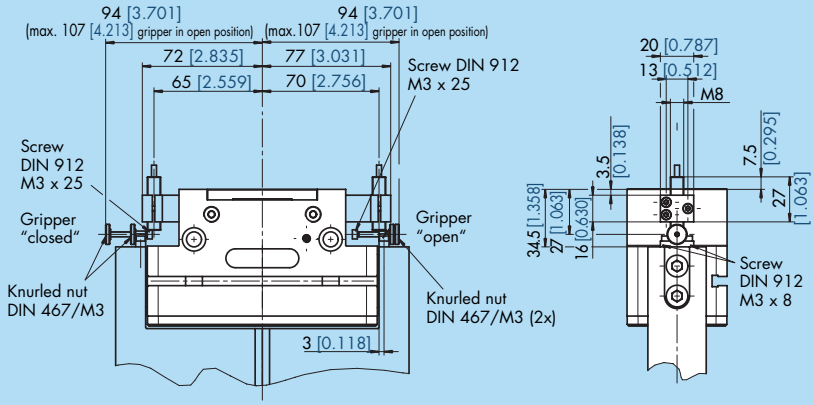
● = compressed air connection



Different dimensions for Standard-DPG with spring housing



Mounting kit (Type AS-DPG 125) for mounting inductive proximity switches INW 80/S



DPG 125

2-Finger Parallel Gripper DPG 125
2-Finger Parallel Gripper DPG 125 with mechanical grip force safety device: O.D. gripping (AS)

Type		DPG 125	DPG 125 AS
Id.-No.		**370 254**	**370 264**
Stroke per finger	mm [inch]	13 [0.512]	13 [0.512]
Gripping force at 6 bar [87 psi]*	N [lbf]	820 [184]	1210 [272]
Workpiece weight (recommended) **	kg [lbs]	4.1 [9.039]	4.1 [9.039]
Air consumption per double stroke	cm^3 [$inch^3$]	70 [4.270]	70 [4.270]
Opening time		0.06 s	0.12 s
Closing time		0.1 s	0.09 s
Mass	kg [lbs]	2.21 [4.872]	2.67 [5.886]
Own mass moment of inertia I_y	kg cm^2 [lb·$inch^2$]	50 [17.090]	53 [18.115]
Repeatability ***	mm [inch]	0.01 [0.0004]	0.01 [0.0004]
Max. finger length	mm [inch]	125 [4.921]	125 [4.921]
Gripping force maintained by spring *	N [lbf]		240 [54]
Closing time with spring only			0.36 s

* Gripping force is the arithmetic sum of the individual forces occuring at the jaws at distance "P" at 6 bar [87 psi].
** Value at $\mu = 0.1$ and $\upsilon = 2$. Values are higher with form fit fingers. Please also consider the gripping force maintained by spring.
*** After 100 consecutive strokes worst case.

Gripping force safety
Operating pressure min. 4 bar [58 psi], max. 6.5 bar [94 psi].
Gripping force = pneumatic gripping force + spring force

Note: Pressure maintenance valve SDV-P can be used as an alternative to mechanical gripping force safety device for O.D. and I.D. gripping.
(See chapter "Accessories")

Accessories for DPG 125

Electro magnetic switch
Easy to fit and can be concealed in the T-groove in the housing. For technical details see chapter "Accessories".

Type	Id.-No.
INS 30/S*	**301 510**

* S = Normally open

Inductive proximity switches
Optional monitoring using proximity switches (uses 2 closers). Special mounting kit required. For technical details see chapter "Accessories".

Type	Id.-No.
AS-DPG 125	**300 709**
INW 80/S*	**301 508** or **301 408**

* S = Normally open

Finger blanks
For dimensions and design see chapter "Accessories".

Type	Material	Id.-No.
AAB 125	Aluminum	**300 750**

System modules and additional accessories for DPG

Swivel units
For compatible swivel units and swivel heads see chapter "Swivel Units".

Linear units
For compatible linear units see chapter "Linear Units".

Custom solutions
We can supply cost-effective custom solutions, customized fingers, adapter plates and complete units to suit your specialized requirements quickly.

Additional accessories
Gripper pads to increase friction factors, pressure maintenance valves or multiple connectors for proximity switches are found in our chapter "Accessories".

Gripper changing systems
For compatible gripper changing systems see chapter "Robot Accessories".

Compensation units
For compatible compensation units see chapter "Robot Accessories".