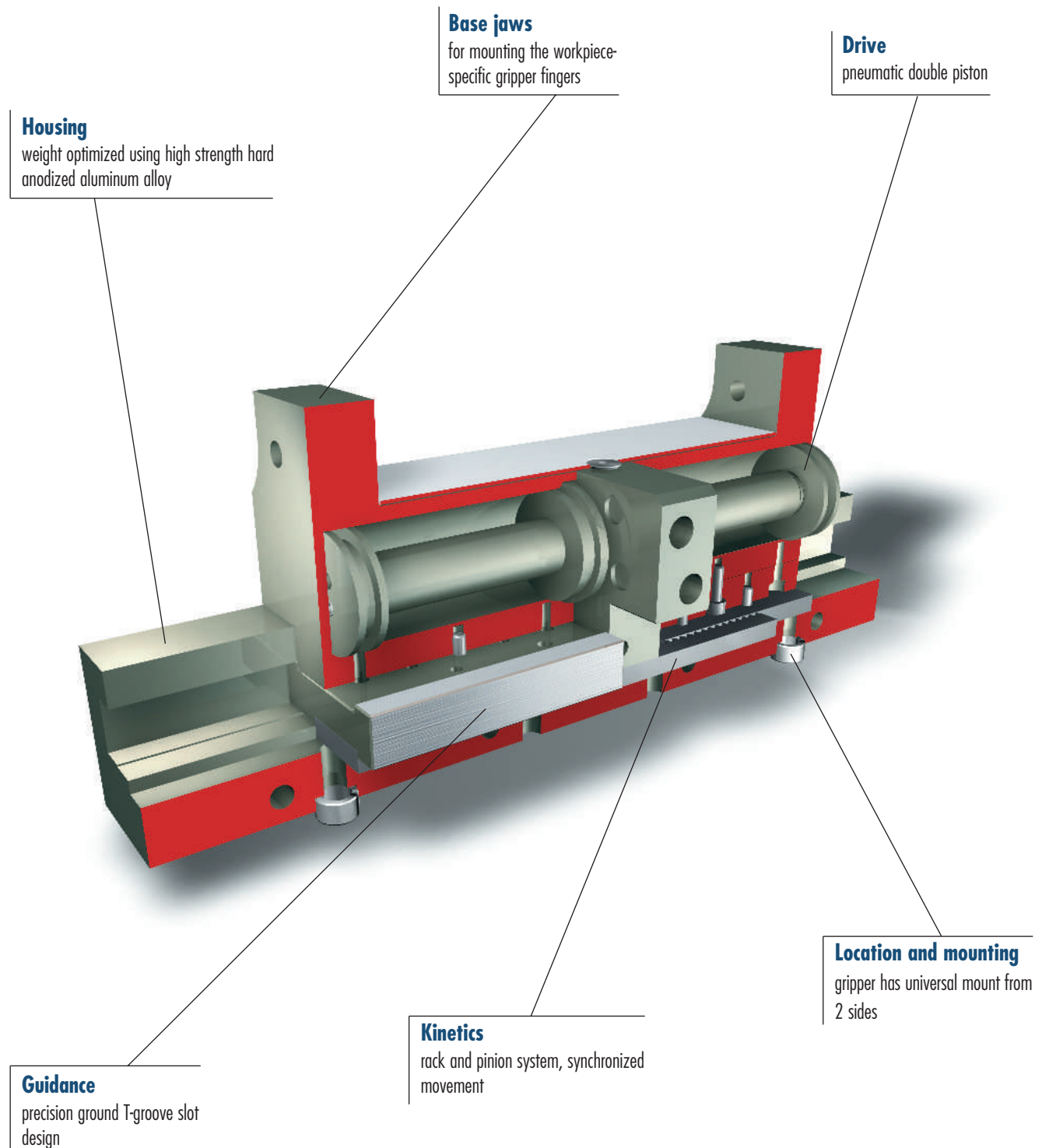


2-Finger Parallel Gripper Compact long-stroke gripper





KGG 80

KGG 140

KGG 220

KGG 280

Benefits

- Compact design
- Very light
- Long stroke
- High reliability and long life
- Stable T-groove guidance
- Suitable for I.D. and O.D. gripping
- Multiple mounting possibilities
- Direct connection without air hoses possible
- Stroke monitoring with proximity switches
- For KGG 80 and KGG 140 optionally 5 positions can be monitored via Flexible Positioning Sensor FPS
- Detailed operating and maintenance instructions
- 12 month warranty

Technical data

Operating principle:

synchronized dual piston

Material:

housing made of high-tensile, hard coated aluminum alloy. The functional parts are made of hardened steel

Operation:

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

Operating pressure range:

2.5 to 8 bar [36 to 116 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, fastening screws, centering pins, O-rings for direct connection, operating and service manual, supplier's declaration

Gripping force safety in the event of a power failure:

possible via pressure maintenance valve SDV-P

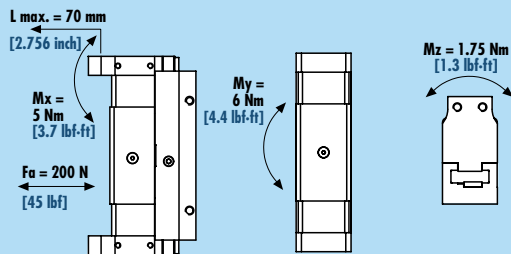
Accessories:

Proximity switches, flexible position sensor, finger blanks, pressure maintenance valve

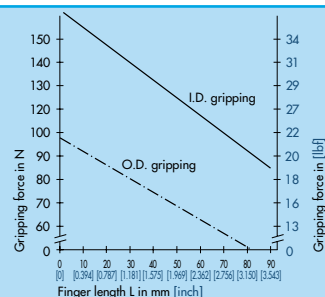
Sensors NPN:

Sensors in NPN version available on request

Max. admissible forces and moments at the gripper fingers *

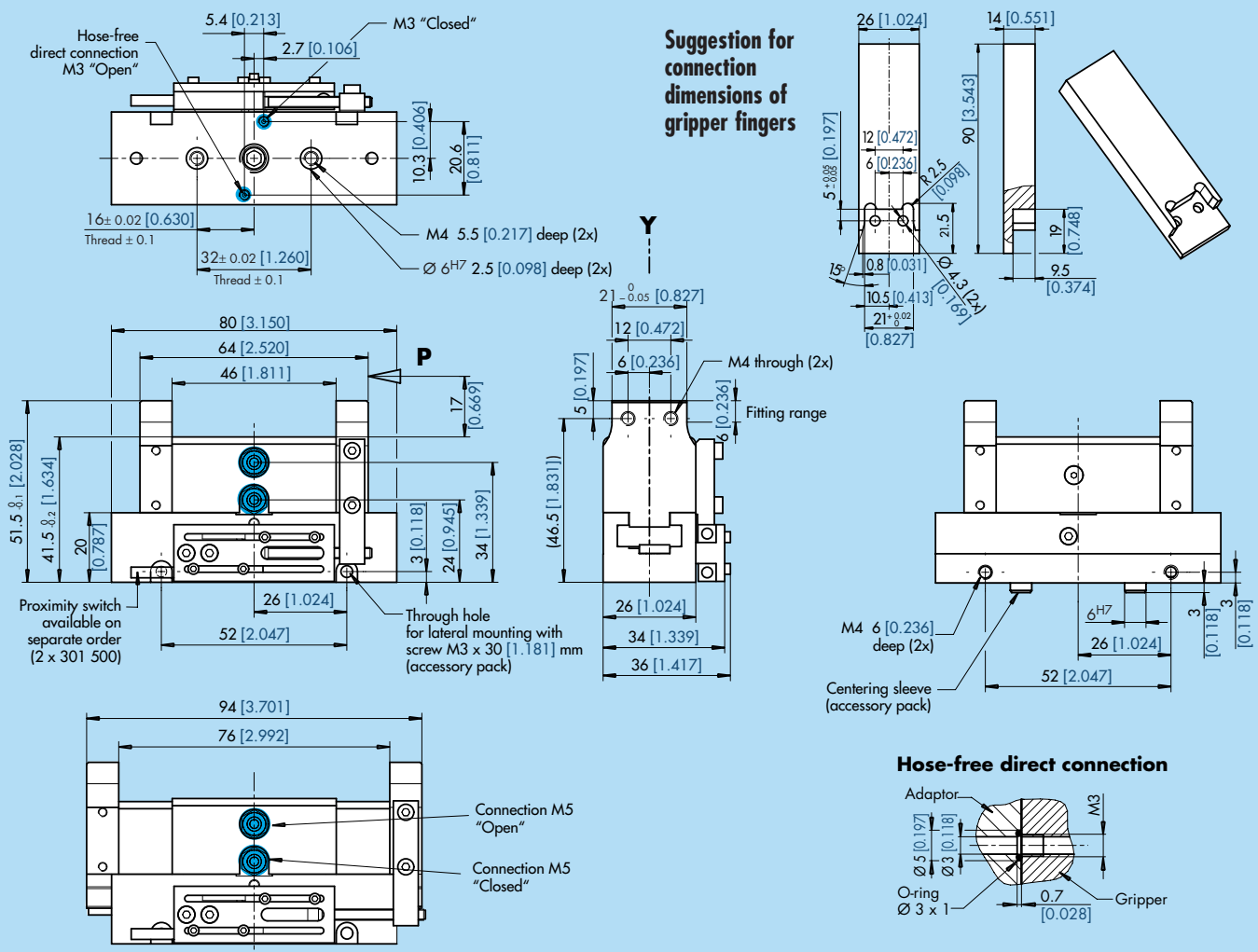


Gripping force diagram In relation to the finger length L at 6 bar [87 psi]

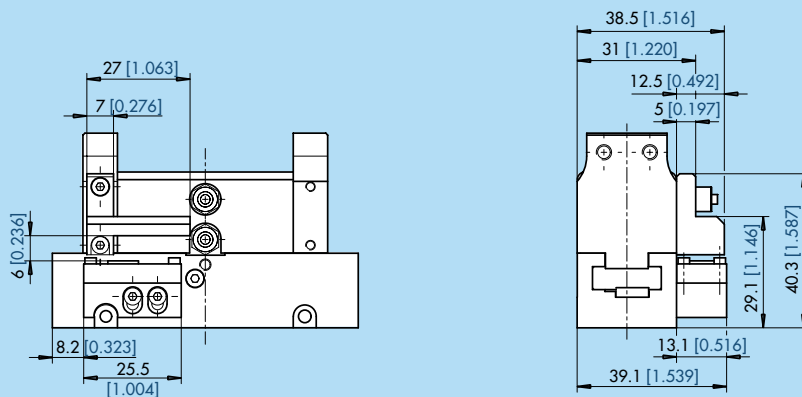


* in addition to the gripping force

Dimensions for KGG 80



Dimensions for KGG 80 with mounting kit for Flexible Positioning Sensor (AS-KGG 80, Id.-No. 301 731)



2-Finger Parallel Gripper KGG 80

Type		KGG 80
Id.-No.		340 310
Stroke per finger	mm [inch]	15 [0.591]
Gripping force at 6 bar [87 psi]*	N [lbf]	88 [20]
Workpiece weight (recommended) **	kg [lbs]	0.44 [0.97]
Air consumption per double stroke	cm ³ [inch ³]	11 [0.671]
Opening time		0.045 s
Closing time		0.060 s
Mass	kg [lbs]	0.25 [0.551]
Own mass moment of inertia I _y	kg cm ² [lb·inch ²]	1.4 [0.479]
Repeatability ***	mm [inch]	± 0.05 [0.002]
Max. finger length	mm [inch]	70 [2.756]

* Gripping force is the arithmetic sum of the individual forces occurring at the jaws at distance "P" at 6 bar [87 psi].
 ** Value at $\mu = 0.1$ and $v = 1.5 - 2$. Values are higher with form fit fingers.
 *** After 100 consecutive strokes worst case.

Accessories for KGG 80



Inductive proximity switches

Easy to fit with LED lamp. For technical details see chapter "Accessories".

Type	Id.-No.
INW 5/S*	301 500

* S = Normally open



Flexible Positioning Sensor FPS

Stroke monitoring of up to 5 positions with a Flexible Positioning Sensor FPS is possible with KGG 80. For technical details see chapter "Accessories".

Type	Id.-No.
AS-KGG 80	301 731
FPS-S 13	301 705
FPS-A5	301 802
FPS-F5 *1	301 805
FPS-F5T *1	301 807
KV 05 *2	301 598
KV 1 *2	301 599
KV 10 *2	301 801

*1 = alternative *2 = optional



Finger blanks

For dimensions and design see chapter "Accessories".

Type	Material	Id.-No.
RB 80	Aluminum	300 284

System modules and additional accessories for KGG



Swivel units

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



Linear units

For compatible linear units see chapter "Linear Units".



Gripper changing systems

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



Compensation units

For compatible compensation units see chapter "Robot Accessories".



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".

Note

Please note that the life span of these units can be reduced considerably if they are used in extreme conditions (e.g. where coolant is used, or dust from casting or grinding processes is present). We cannot be held responsible in these cases. Solutions do exist for many problems — please contact us to find out more.



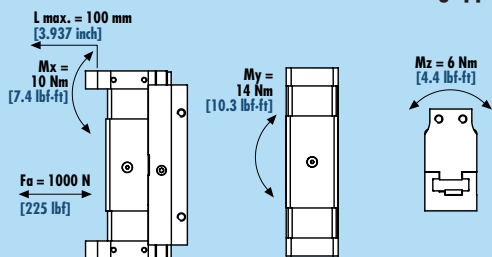
KGG 80

KGG 140

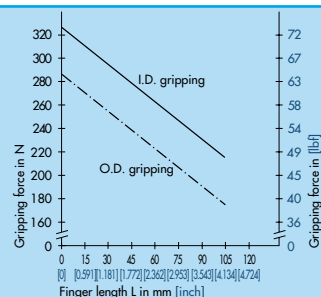
KGG 220

KGG 280

Max. admissible forces and moments at the gripper fingers *



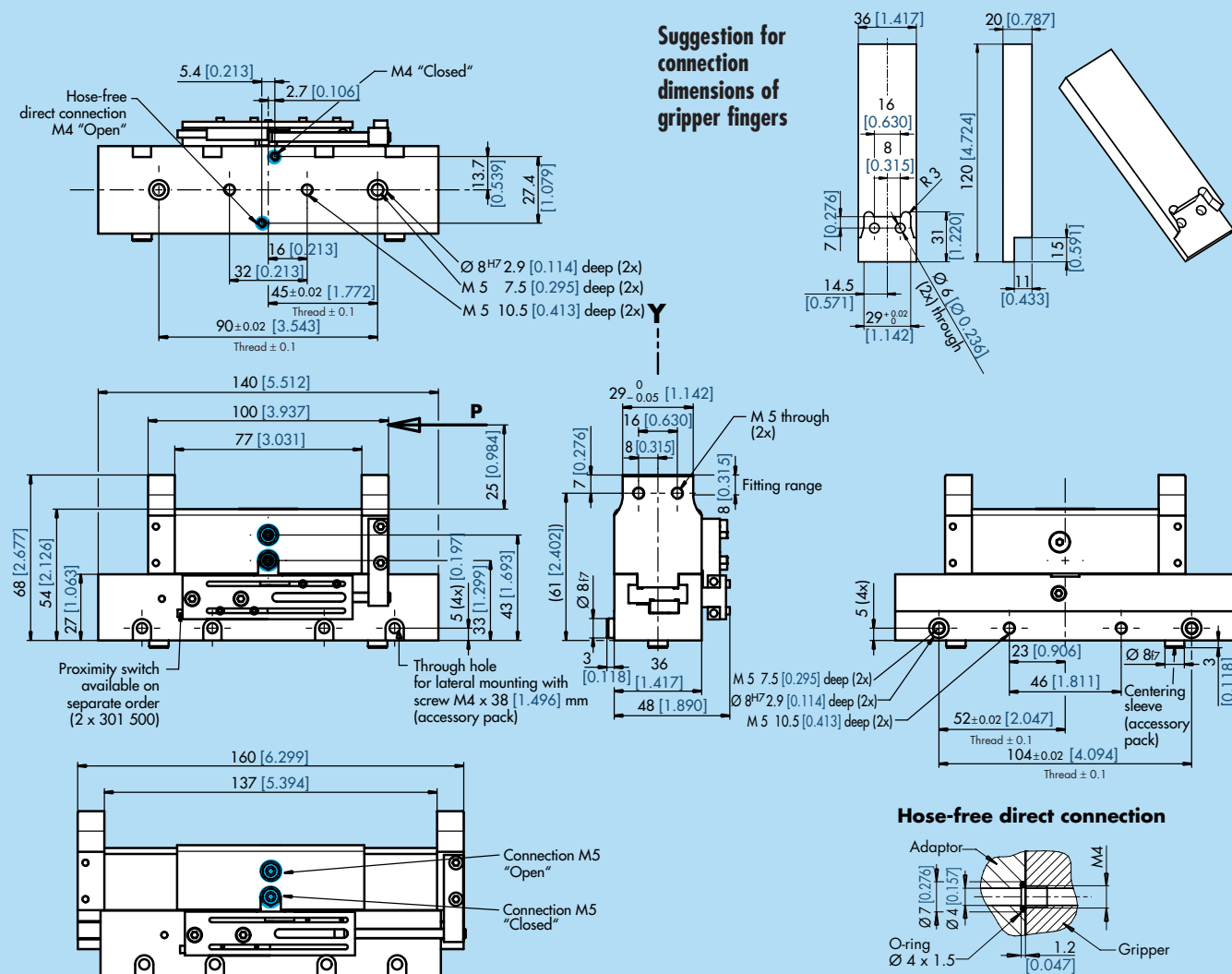
Gripping force diagram In relation to the finger length L at 6 bar [87 psi]



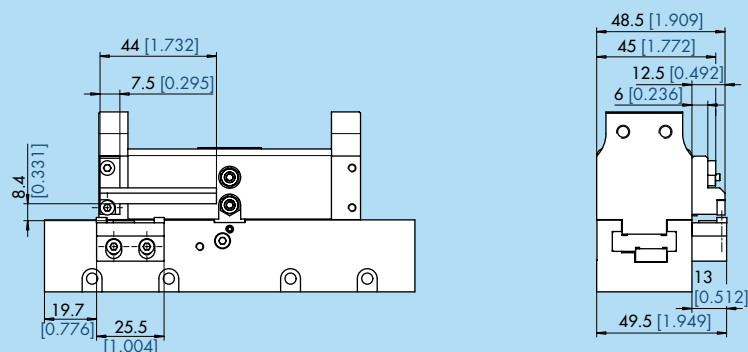
* in addition to the gripping force

Dimensions for KGG 140

● = compressed air connection



Dimensions for KGG 140 with mounting kit for Flexible Positioning Sensor (AS-KGG 140, Id.-No. 301 735)



2-Finger Parallel Gripper KGG 140

Type		KGG 140
Id.-No.		340 311
Stroke per finger	mm [inch]	30 [1.181]
Gripping force at 6 bar [87 psi]*	N [lbf]	260 [58]
Workpiece weight (recommended) **	kg [lbs]	1.3 [2.866]
Air consumption per double stroke	cm ³ [inch ³]	41 [2.501]
Opening time		0.12 s
Closing time		0.12 s
Mass	kg [lbs]	0.72 [1.587]
Own mass moment of inertia I _y	kg cm ² [lb·inch ²]	9.4 [3.213]
Repeatability ***	mm [inch]	± 0.05 [0.002]
Max. finger length	mm [inch]	100 [3.937]

* Gripping force is the arithmetic sum of the individual forces occurring at the jaws at distance "P" at 6 bar [87 psi].

** Value at $\mu = 0.1$ and $v = 1.5 - 2$. Values are higher with form fit fingers.

*** After 100 consecutive strokes worst case.

Accessories for KGG 140



Inductive proximity switches

Easy to fit with LED lamp. For technical details see chapter "Accessories".

Type	Id.-No.
INW 5/S*	301 500

* S = Normally open



Flexible Positioning Sensor FPS

Stroke monitoring of up to 5 positions with a Flexible Positioning Sensor FPS is possible with KGG 140. For technical details see chapter "Accessories".

Type	Id.-No.
AS-KGG 140	301 735
FPS-S 13	301 705
FPS-A5	301 802
FPS-F5 *1	301 805
FPS-F5T *1	301 807
KV 05 *2	301 598
KV 1 *2	301 599
KV 10 *2	301 801

*1 = alternative *2 = optional



Finger blanks

For dimensions and design see chapter "Accessories".

Type	Material	Id.-No.
RB 140	Aluminum	300 285

System modules and additional accessories for KGG



Swivel units

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



Linear units

For compatible linear units see chapter "Linear Units".



Gripper changing systems

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



Compensation units

For compatible compensation units see chapter "Robot Accessories".



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".

Note

Please note that the life span of these units can be reduced considerably if they are used in extreme conditions (e.g. where coolant is used, or dust from casting or grinding processes is present). We cannot be held responsible in these cases. Solutions do exist for many problems — please contact us to find out more.



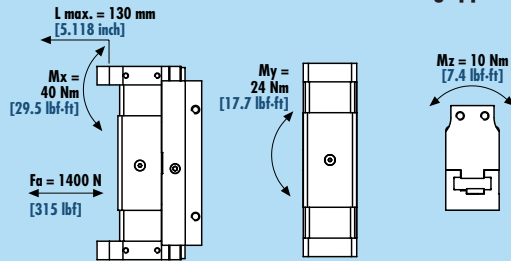
KGG 80

KGG 140

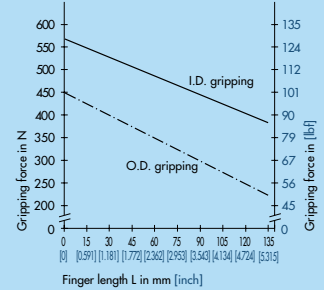
KGG 220

KGG 280

Max. admissible forces and moments at the gripper fingers *



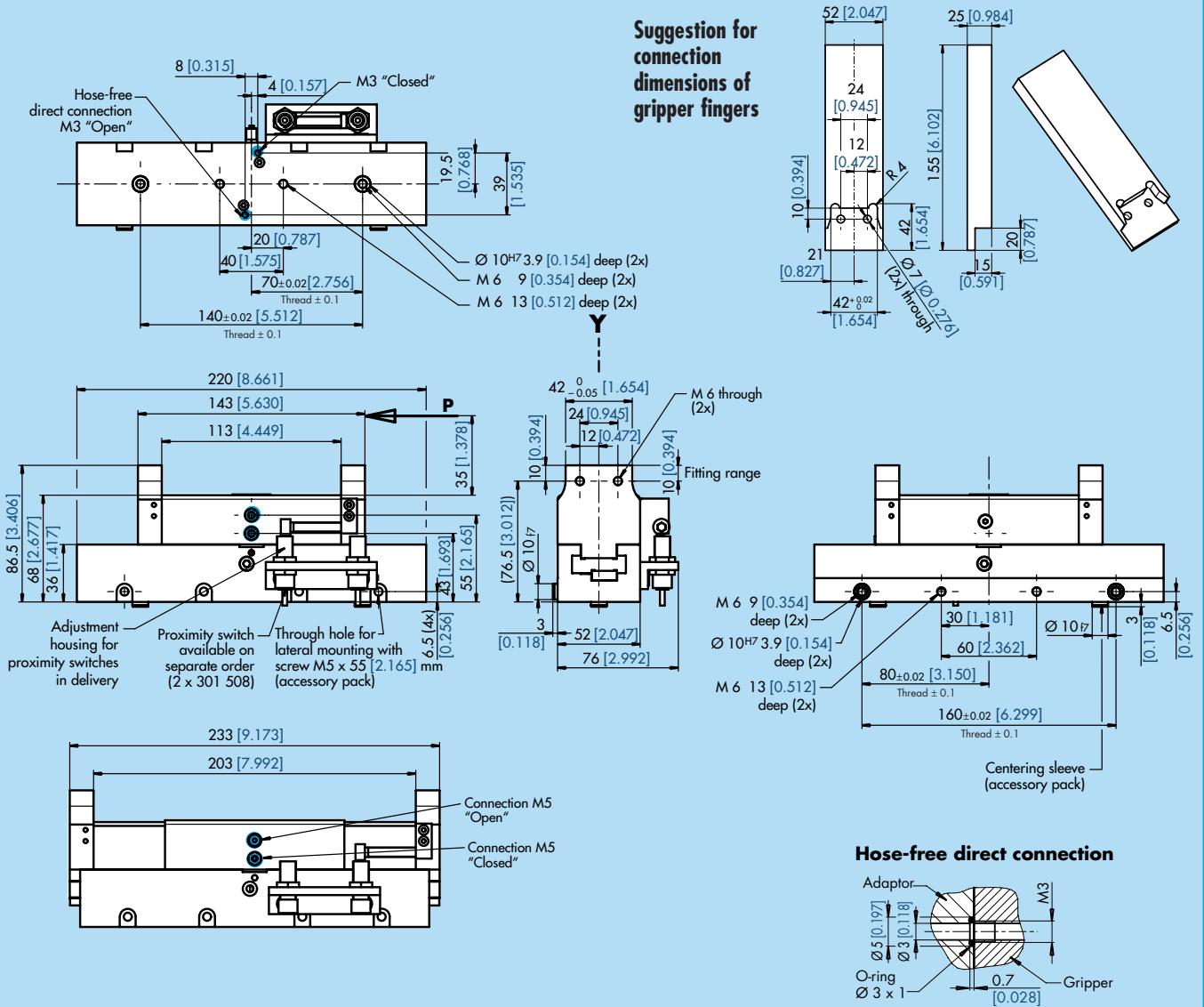
Gripping force diagram In relation to the finger length L at 6 bar [87 psi]



* in addition to the gripping force

Dimensions for KGG 220

● = compressed air connection



2-Finger Parallel Gripper KGG 220

Type		KGG 220
Id.-No.		340 312
Stroke per finger	mm [inch]	45 [1.772]
Gripping force at 6 bar [87 psi]*	N [lbf]	390 [88]
Workpiece weight (recommended) **	kg [lbs]	1.95 [4.299]
Air consumption per double stroke	cm ³ [inch ³]	98 [5.978]
Opening time		0.25 s
Closing time		0.25 s
Mass	kg [lbs]	2.0 [4.409]
Own mass moment of inertia I _y	kg cm ² [lb-inch ²]	60 [20.508]
Repeatability ***	mm [inch]	± 0.05 [0.002]
Max. finger length	mm [inch]	130 [5.118]

* Gripping force is the arithmetic sum of the individual forces occurring at the jaws at distance "P" at 6 bar [87 psi].
 ** Value at $\mu = 0.1$ and $v = 1.5 - 2$. Values are higher with form fit fingers.
 *** After 100 consecutive strokes worst case.

Accessories for KGG 220



Inductive proximity switches

Easy to fit with LED lamp. For technical details see chapter "Accessories".

Type	Id.-No.
INW 80/S*	301 508 or 301 408

* S = Normally open



Finger blanks

For dimensions and design see chapter "Accessories".

Type	Material	Id.-No.
RB 220	Aluminum	300 286

System modules and additional accessories for KGG



Swivel units

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



Linear units

For compatible linear units see chapter "Linear Units".



Gripper changing systems

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



Compensation units

For compatible compensation units see chapter "Robot Accessories".



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".

Note

Please note that the life span of these units can be reduced considerably if they are used in extreme conditions (e.g. where coolant is used, or dust from casting or grinding processes is present). We cannot be held responsible in these cases. Solutions do exist for many problems — please contact us to find out more.



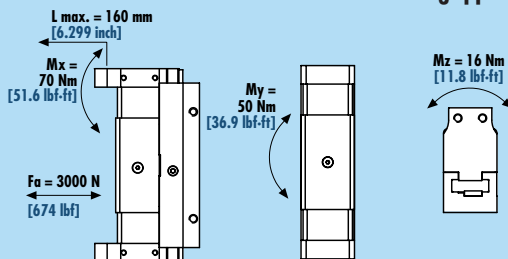
KGG 80

KGG 140

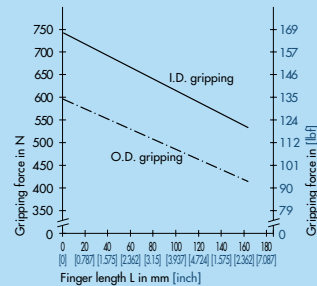
KGG 220

KGG 280

Max. admissible forces and moments at the gripper fingers *



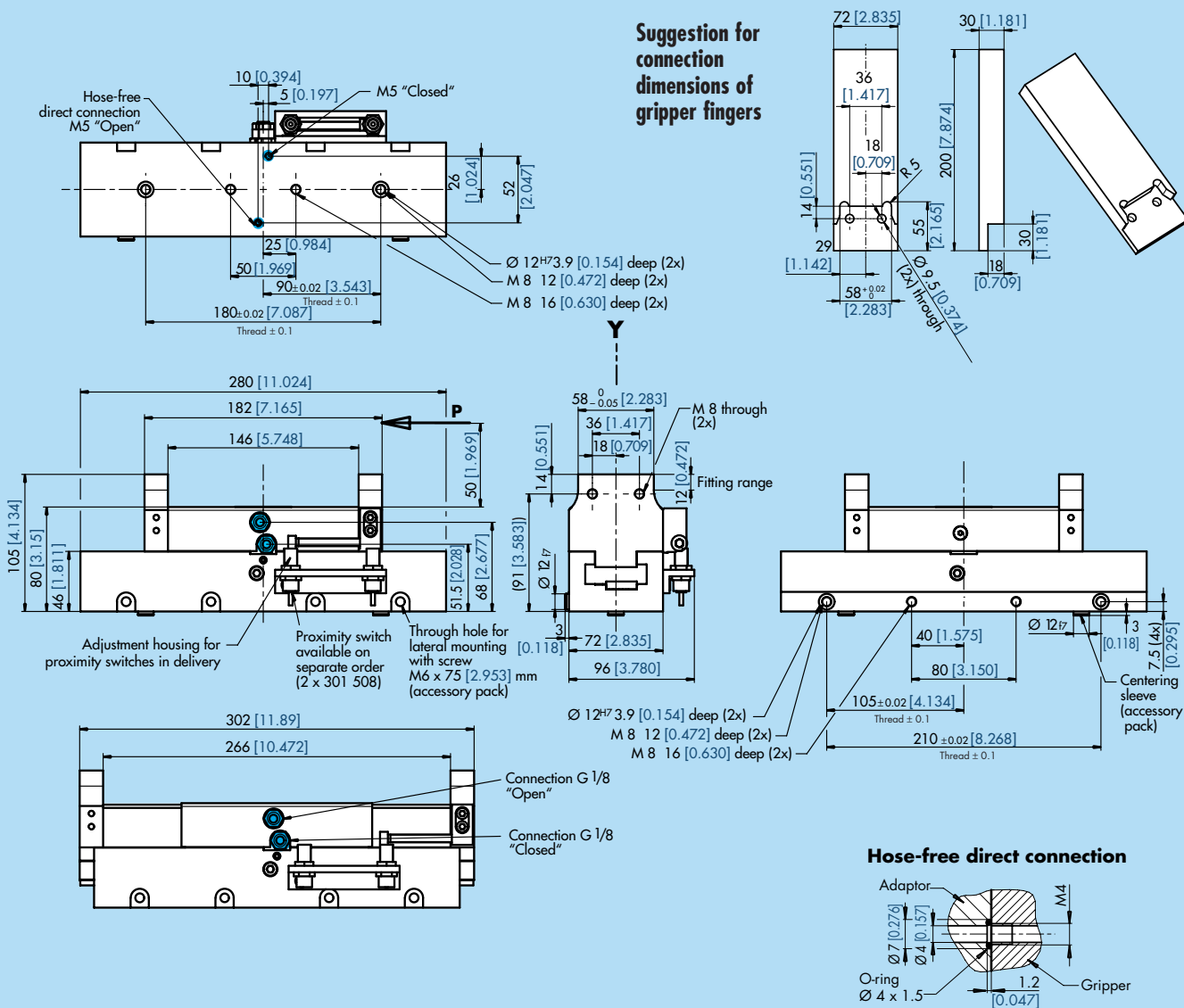
Gripping force diagram In relation to the finger length L at 6 bar [87 psi]



* in addition to the gripping force

Dimensions for KGG 280

● = compressed air connection



2-Finger Parallel Gripper KGG 280

Type		KGG 280
Id.-No.		340 313
Stroke per finger	mm [inch]	60 [2.362]
Gripping force at 6 bar [87 psi]*	N [lbf]	540 [121]
Workpiece weight (recommended) **	kg [lbs]	2.7 [5.952]
Air consumption per double stroke	cm ³ [inch ³]	170 [10.370]
Opening time		0.25 s
Closing time		0.29 s
Mass	kg [lbs]	4.2 [9.259]
Own mass moment of inertia I _y	kg cm ² [lb·inch ²]	208 [71.094]
Repeatability ***	mm [inch]	± 0.1 [0.004]
Max. finger length	mm [inch]	160 [6.299]

* Gripping force is the arithmetic sum of the individual forces occurring at the jaws at distance "P" at 6 bar [87 psi].

** Value at $\mu = 0.1$ and $v = 1.5 - 2$. Values are higher with form fit fingers.

*** After 100 consecutive strokes worst case.

Accessories for KGG 280



Inductive proximity switches

Easy to fit with LED lamp. For technical details see chapter "Accessories".

Type	Id.-No.
INW 80/S*	301 508 or 301 408

* S = Normally open



Finger blanks

For dimensions and design see chapter "Accessories".

Type	Material	Id.-No.
RB 280	Aluminum	300 287

System modules and additional accessories for KGG



Swivel units

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



Linear units

For compatible linear units see chapter "Linear Units".



Gripper changing systems

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



Compensation units

For compatible compensation units see chapter "Robot Accessories".



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".

Note

Please note that the life span of these units can be reduced considerably if they are used in extreme conditions (e.g. where coolant is used, or dust from casting or grinding processes is present). We cannot be held responsible in these cases. Solutions do exist for many problems — please contact us to find out more.



KGG 80

KGG 140

KGG 220

KGG 280