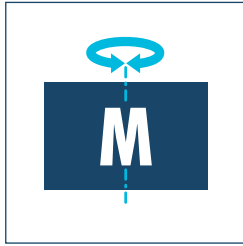
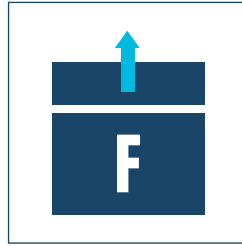


Gripping force
100 N

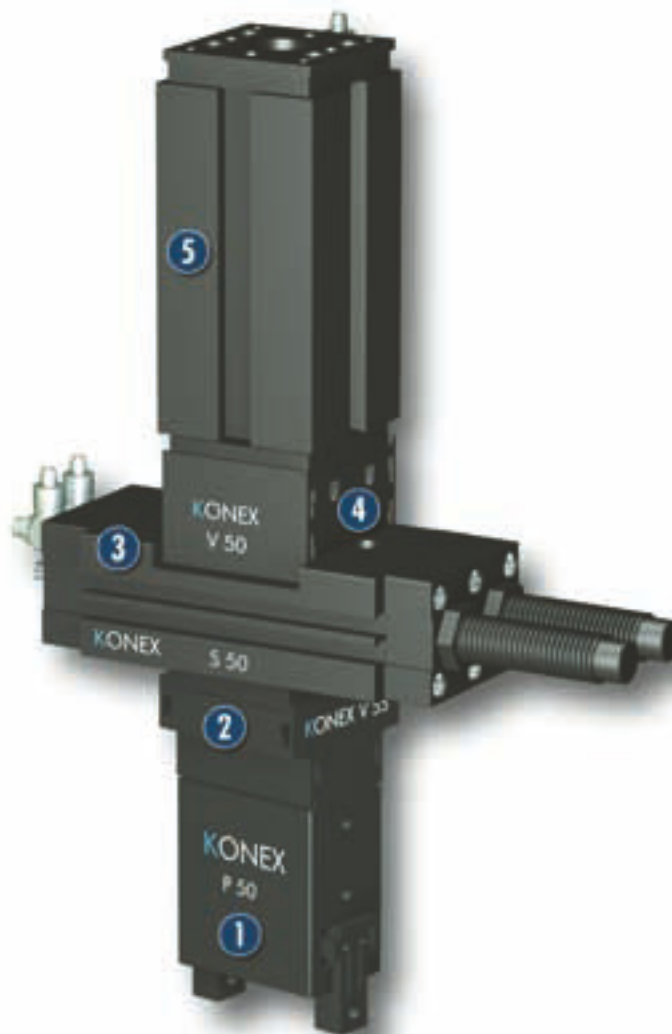


Torque
0.9 Nm



Piston force (extended)
250 N

Application example



KONEX weight-reduced, modular gripping system for economical automation in assembly and production

- 1 KONEX P 50
2-Finger Parallel Gripper
- 2 KONEX V 55 connector
- 3 KONEX S 50 Rotary Unit

- 4 KONEX V 50 connector
- 5 KONEX H 50 Linear Unit

Modular Gripping System

weight-reduced, low-price gripping system consisting of a linear unit, a gripper and a rotary unit connected with snap-on connectors, so that the modules do not need to be screwed in place

Area of application

suitable for clean environments and light loads

Your advantages and benefits

Low-price gripping system

comprising rotary unit, linear unit and parallel gripper

Complete series weight-reduced through the use of a high-performance polymer

making the modules extremely light and free from corrosion

Simple connection of the various components using snap-on connectors

enabling easy, fast assembly of modules



Information about the series

Working principle

Pneumatic piston drive, with transmission to a pinion in the case of the rotary unit

Housing material

High-performance polymer

Actuation

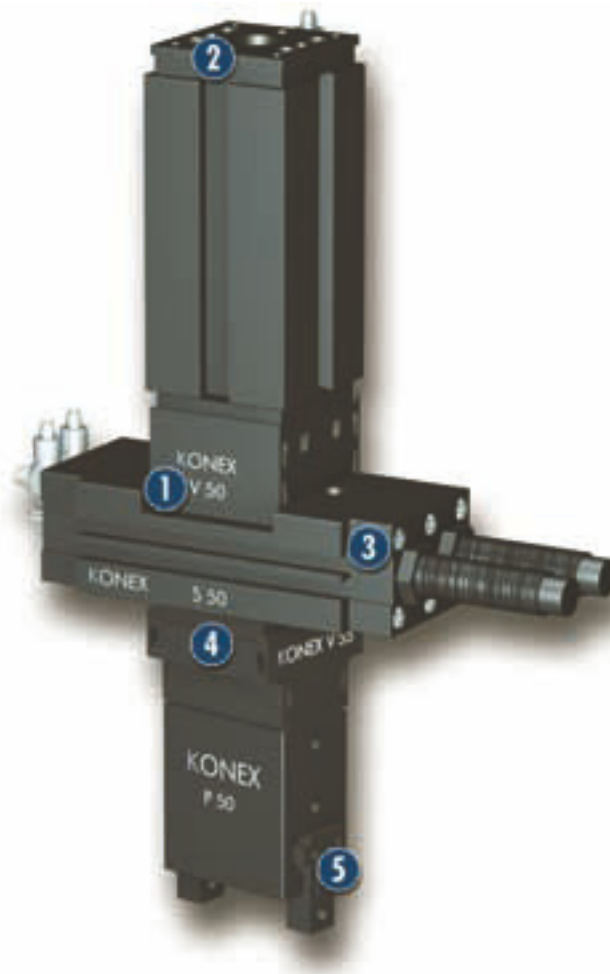
Pneumatic, with filtered compressed air (10 µm): Dry, lubricated or non-lubricated
Pressure medium: Requirements on quality of the compressed air according to DIN ISO 8573-1: 6 4 4

Warranty

24 months

Scope of delivery

Brackets for proximity switches (gripper only), assembly and operating manual with manufacturer's declaration



- 1 V 50 connector**
for connecting linear units and rotary units in any direction, attachable at 90° intervals
- 3 KONEX S**
weight-reduced Rotary Unit
- 5 KONEX P**
weight-reduced Parallel Gripper
- 2 KONEX H**
weight-reduced Linear Unit
- 4 V 55 connector**
for connecting a Rotary Unit or a Linear Unit to a Gripper, attachable at 90° intervals

Function description

The KONEX series works with pneumatics. The gripper functions by means of a pneumatic piston, the rotary unit on the basis of a double-piston rack and pinion principle and the linear unit through the direct connection of the lifting plate to the piston rod.

Options and special information

Thanks to the snap-on connectors, the individual modules are mounted within seconds.

Accessories

Accessories from SCHUNK – the suitable supplement for maximum functionality, reliability and performance of all automation modules.

Centering sleeves



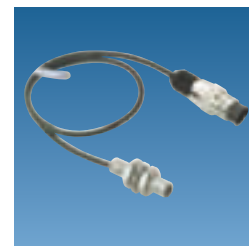
Fittings



MMS magnetic switches



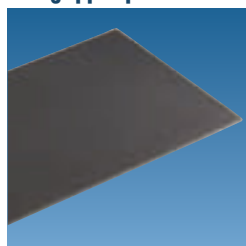
IN inductive proximity switches



Quentes plastic inserts



HKI gripper pads



SDV-P pressure maintenance valves



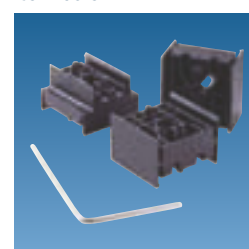
KV/KA sensor cables



V sensor distributors



Connector



① For the exact size of the required accessories, availability of this size and the designation and ID, please refer to the additional views at the end of the size in question. You will find more detailed information on our accessory range in the "Accessories" catalog section.

General information on the series

Gripping force

is the arithmetic total of the gripping force applied to each base jaw at distance P (see illustration), measured from the upper edge of the gripper.

Finger length

is measured from the upper edge of the gripper housing in the direction of the main axis.

Repeat accuracy

is defined as the spread of the limit position after 100 consecutive strokes.

V 50 and V 55 connectors

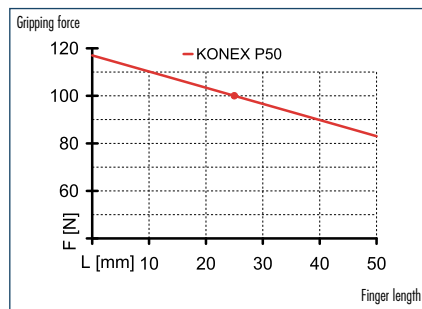
The linear unit is connected to the rotary unit via the V 50 connector. The gripper can be secured to the linear unit or rotary unit via the V 55 connector.

Closing and opening times

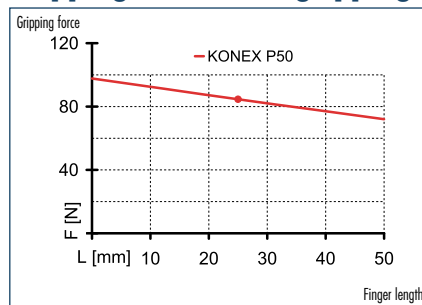
Closing and opening times are purely the times that the base jaws or fingers are in motion. Valve switching times, hose filling times or PLC reaction times are not included in the above times and must be taken into consideration when determining cycle times.



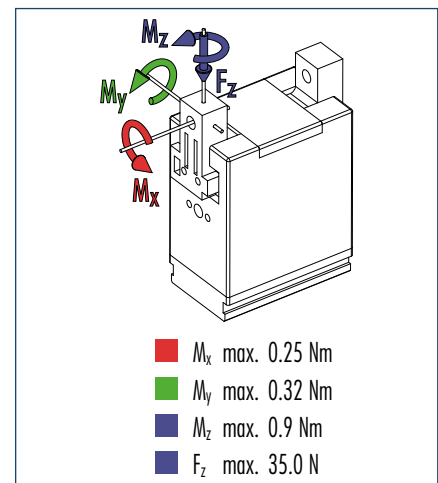
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

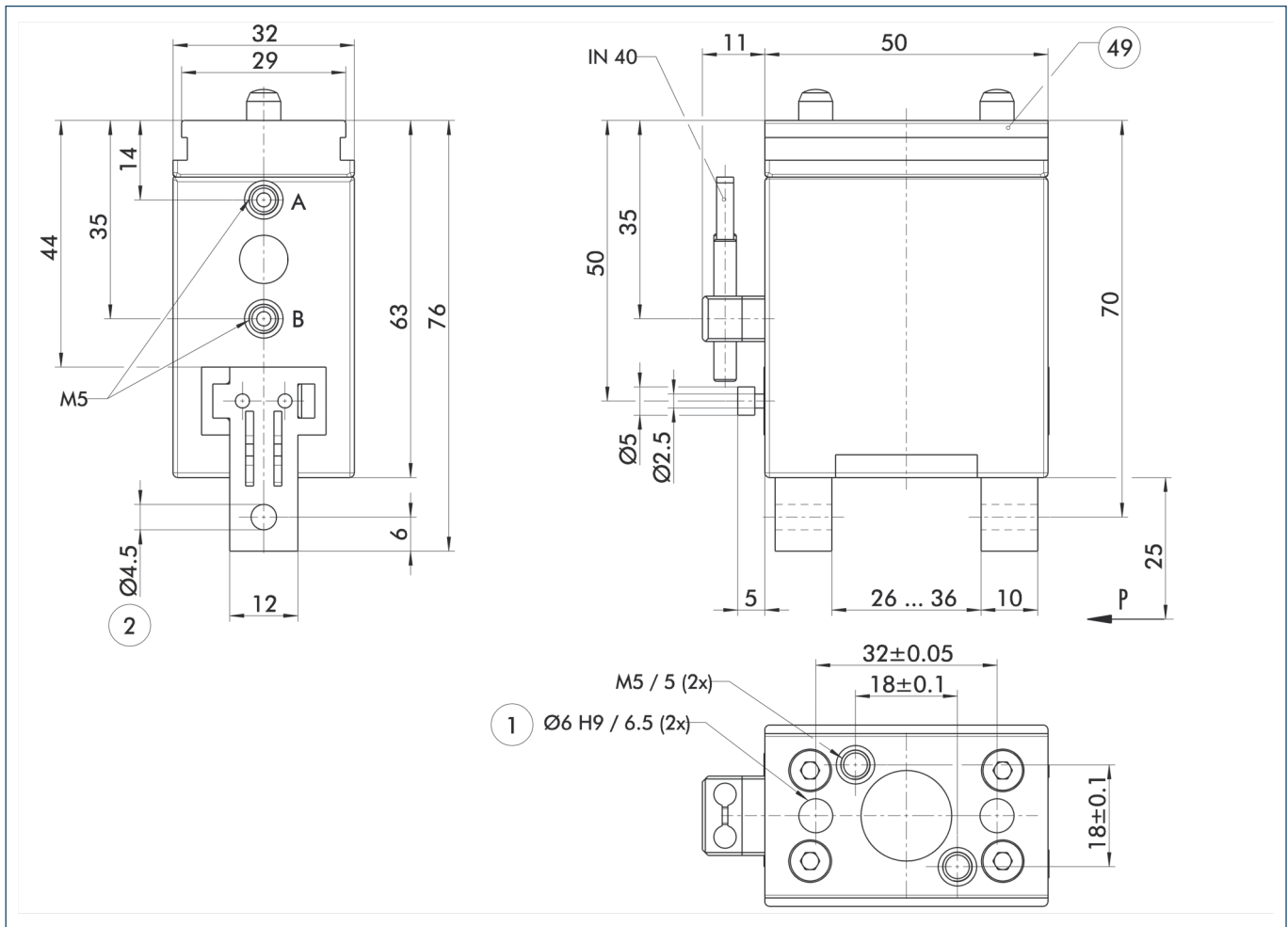


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may reduce.

Technical data

Description		Konex P 50
ID		0305550
Stroke per finger	[mm]	5.0
Closing force	[N]	85.0
Opening force	[N]	100.0
Weight	[kg]	0.15
Recommended workpiece weight	[kg]	0.2
Air consumption per double stroke	[cm ³]	5.2
Nominal pressure	[bar]	6.0
Minimum pressure	[bar]	2.5
Maximum pressure	[bar]	6.5
Closing time	[s]	0.03
Opening time	[s]	0.025
Max. permitted finger length	[mm]	50.0
Max. permitted weight per finger	[kg]	0.05
IP class		30
Min. ambient temperature	[°C]	5.0
Max. ambient temperature	[°C]	60.0
Repeat accuracy	[mm]	0.05

Main view

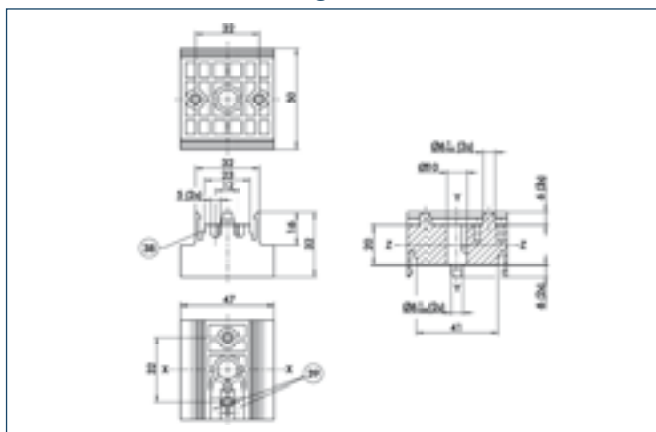


The drawing shows the unit in the basic version, the dimensions do not include the option described below.

- ① The SDV-P pressure maintenance valve can be used to hold the position upon a loss of pressure (see "Accessories" catalog section).

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection
- 49 Undercut for snap-on connection

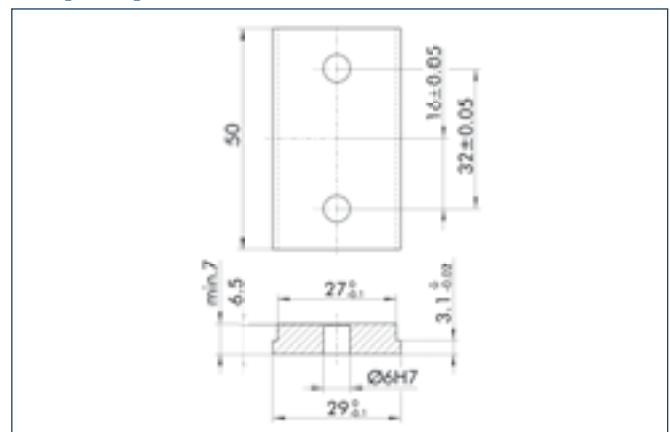
KONEX V 55 connecting element



- 38 Slot for disassembly tool
- 39 Slot for air hose Ø4

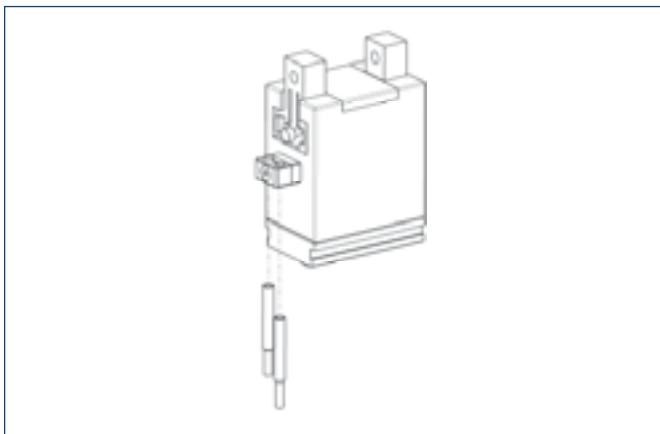
Connecting element between gripper and linear unit or rotary unit

Adapter plate



For fastening the KONEX P 50 gripper with the V 55 connecting element

Sensor system



End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 40-S-M12	0301574	
IN 40-S-M5-NPN	0301492	
IN 40-S-M5-PNP	0301491	
IN 40-S-M8	0301474	•
INK 40-S	0301555	

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

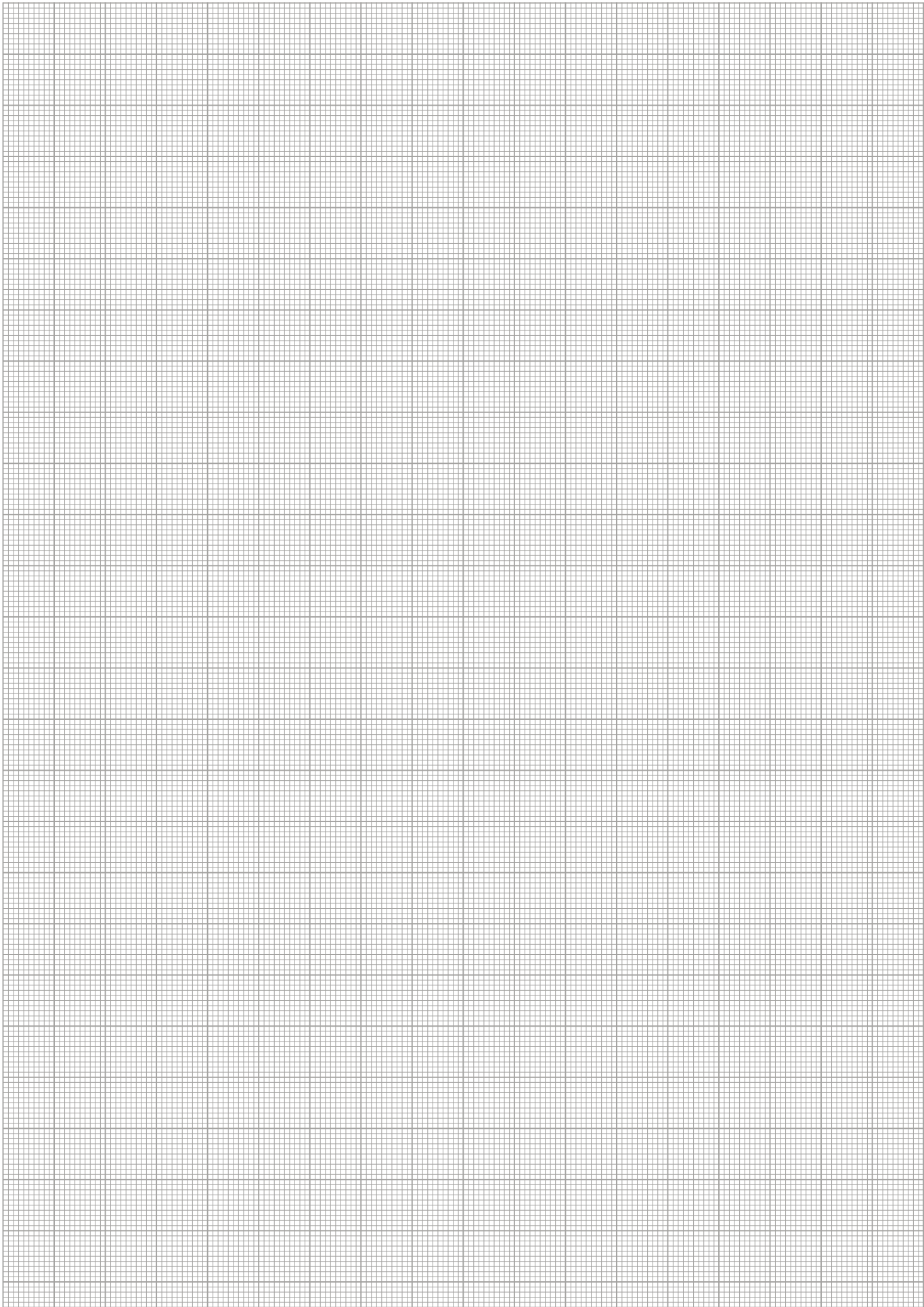
Extension cables for proximity switches/magnetic switches

Description	ID
KA BG05-L 3P-0300	0301652
KA BG08-L 3P-0300-PNP	0301622
KA BW05-L 3P-0300	0301650
KA BW08-L 3P-0300-PNP	0301594
KA BW08-L 3P-0500-PNP	0301502
KA BW12-L 3P-0300-PNP	0301503
KA BW12-L 3P-0500-PNP	0301507
KV BW08-SG08 3P-0030-PNP	0301495
KV BW08-SG08 3P-0100-PNP	0301496
KV BW08-SG08 3P-0200-PNP	0301497
KV BW12-SG12 3P-0030-PNP	0301595
KV BW12-SG12 3P-0100-PNP	0301596
KV BW12-SG12 3P-0200-PNP	0301597

① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

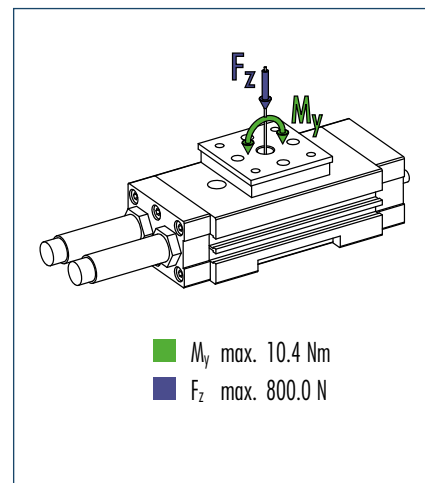


You can find more detailed information and individual parts of the above-mentioned accessories in the “Accessories” catalog section.





Pinion load

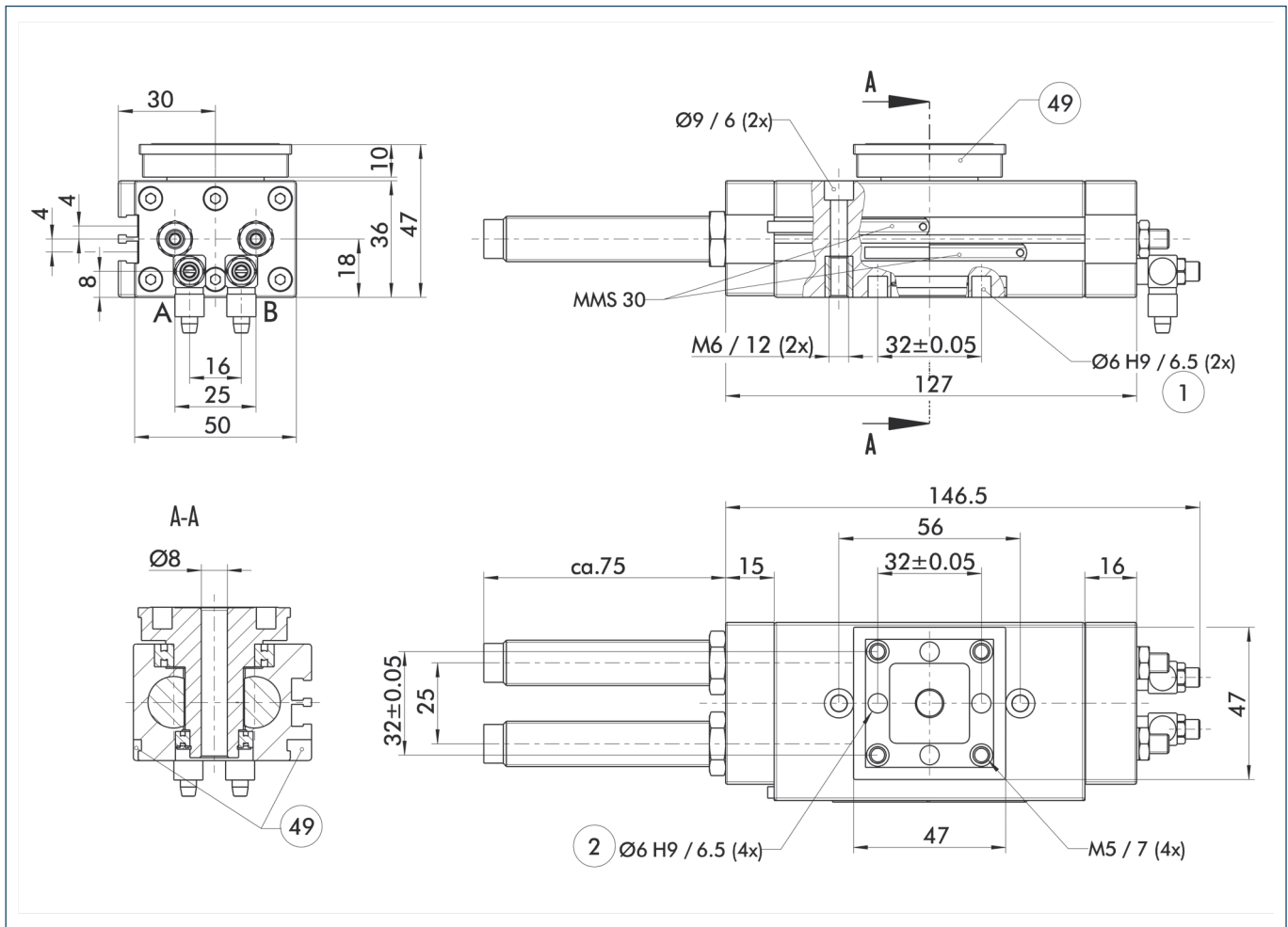


① The moment and force acting on the pinion may occur simultaneously.

Technical data

Description		Konex S 50
ID		0305450
Torque	[Nm]	0.9
Rotating angle	[°]	180.0
End Position Adjustability	[°]	2.0
Weight	[kg]	0.53
IP class		40
Max. permitted axial bearing load	[N]	800.0
Max. permitted radial bearing load	[Nm]	10.4
Cycle time (1x nominal angle of rotation) without attached load	[s]	0.35
Air consumption per cycle	[cm³]	10.5
Min. ambient temperature	[°C]	5.0
Max. ambient temperature	[°C]	60.0
Nominal operating pressure	[bar]	6.0
Min. required operating pressure	[bar]	2.0
Max. permitted operating pressure	[bar]	6.5
Repeat accuracy	[°]	0.2

Main view

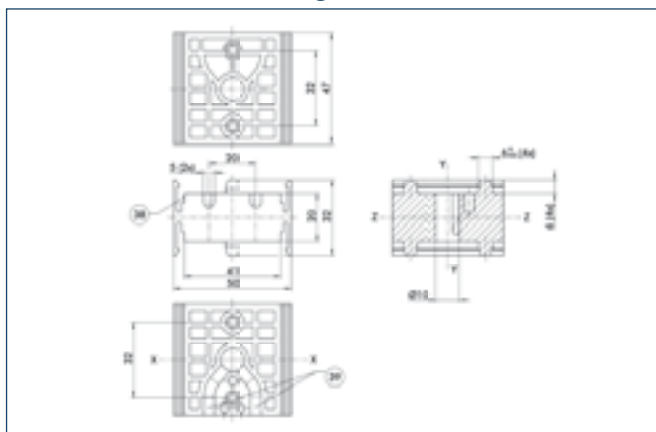


The drawing shows the unit in the basic version, the dimensions do not include the option described below.

- ① The SDV-P pressure maintenance valve can be used to hold the position upon a loss of pressure (see "Accessories" catalog section).

- A, a: Main/direct connection, clockwise rotary unit
- B, b: Main/direct connection, anti-clockwise rotary unit
- 1: Rotary unit connection
- 2: Attachment connection
- 49: Undercut for snap-on connection

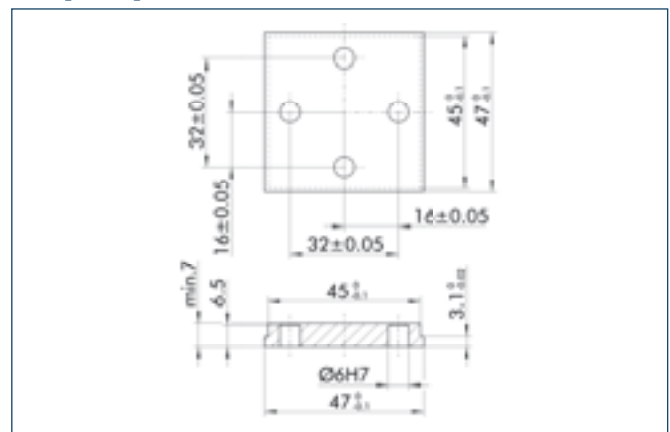
KONEX V 50 connecting element



- 38: Slot for disassembly tool
- 39: Slot for air hose Ø4

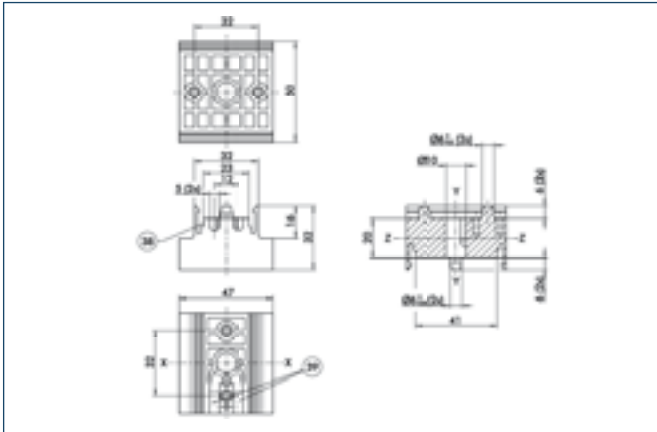
Connecting element between linear unit and rotary unit

Adapter plate



For connecting any modules you require to the linear unit or rotary unit with the V 50 connecting element

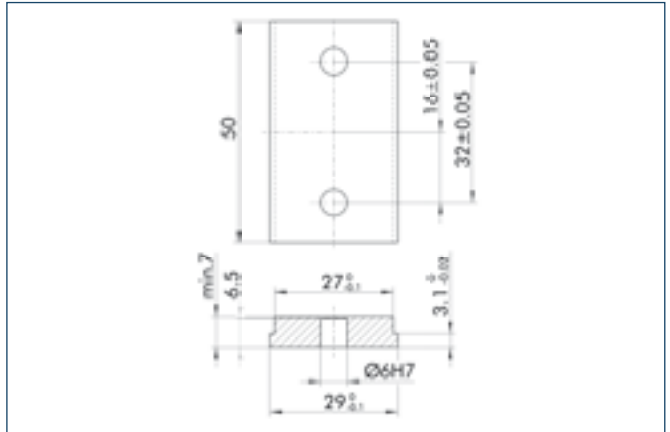
KONEX V 55 connecting element



- 38 Slot for disassembly tool
- 39 Slot for air hose Ø4

Connecting element between gripper and linear unit or rotary unit

Adapter plate

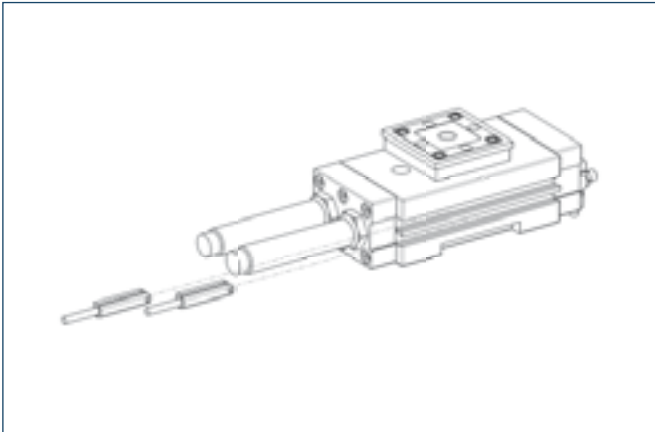


For connecting any modules you require to the linear unit or rotary unit with the V 55 connecting element



You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

Sensor system



End position monitoring:

Electronic magnetic switches, for mounting in C-slot

Description	ID	Recommended product
MMS 30-S-M12-PNP	0301571	
MMS 30-S-M8-PNP	0301471	•
MMSK 30-S-PNP	0301563	

❗ Two sensors (NO contacts) are required for each unit.

Extension cables for proximity switches/magnetic switches

Description	ID
KA BG08-L 3P-0300-PNP	0301622
KA BW08-L 3P-0300-PNP	0301594
KA BW08-L 3P-0500-PNP	0301502
KV BW08-SG08 3P-0030-PNP	0301495
KV BW08-SG08 3P-0100-PNP	0301496
KV BW08-SG08 3P-0200-PNP	0301497
KV BW12-SG12 3P-0030-PNP	0301595
KV BW12-SG12 3P-0100-PNP	0301596
KV BW12-SG12 3P-0200-PNP	0301597

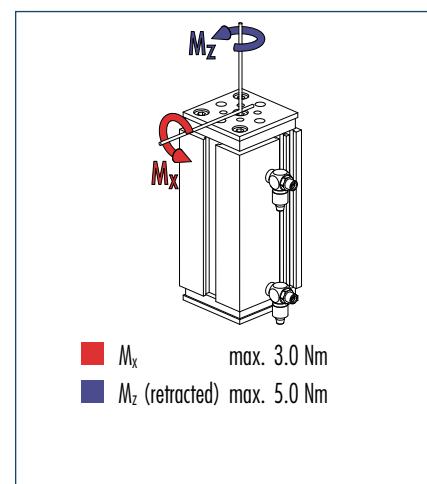
❗ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



You can find more detailed information and individual parts of the above-mentioned accessories in the “Accessories” catalog section.



Moment load



① The loading forces and moments may occur simultaneously.

Technical data

Description		Konex H 50
ID		0305350
Extension force	[N]	250.0
Retraction force	[N]	180.0
Stroke	[mm]	60.0
Weight	[kg]	0.45
Max. permitted torsional moment (extended)	[Nm]	2.0
Air consumption per double stroke	[cm ³]	54.0
Nominal operating pressure	[bar]	6.0
Max. permitted operating pressure	[bar]	6.5
Stroke time (extended)	[s]	0.07
IP class		42
Min. ambient temperature	[°C]	5.0
Max. ambient temperature	[°C]	60.0
Repeat accuracy	[mm]	0.2

Technical drawing of the MMS 30 hydraulic cylinder, showing four views with dimensions in mm.

Front View (Top Left): Shows the cylinder head with dimensions 50 (total width), 47 (inner width), 32±0.05 (port spacing), 14 (port diameter), and 14 (flange thickness). It features 4x M5 ports and 4x Ø6 H9 / 6.5 ports (labeled 2).

Side View (Top Middle): Shows the cylinder body with dimensions min. 10 (mounting flange thickness), 109 (body length), and 10 (end flange thickness). It features 2x M6 ports (labeled 1) and 4x Ø9 ports (labeled 1).

End View (Top Right): Shows the cylinder head with dimensions 36 (total width), 47 (inner width), 32±0.05 (port spacing), 36 (port diameter), and 36 (flange thickness). It features 4x M5 / 5 ports and 4x Ø6 H9 / 6.5 ports (labeled 1).

Top View (Bottom): Shows the cylinder body with dimensions 120 (total length), 109 (body length), 10 (end flange thickness), 15.5 (mounting flange thickness), 72 (rod length), 30 (rod diameter), and 18 (rod end flange thickness). It features 2x M5 ports (labeled 1), 2x MMS 30 ports (labeled 1), and 2x Ø6 H9 / 6.5 ports (labeled 1). The rod end is labeled A and the head end is labeled B.

- A,a Main/direct connection, extend advance linear unit
- B,b Main/direct connection, return retract linear unit
- ① Linear unit connection
- ② Attachment connection
- ②7 Fastening groove for T-nuts
- ④9 Undercut for snap-on connection

- ① The SDV-P pressure maintenance valve can be used to hold the position upon a loss of pressure (see "Accessories" catalog section).

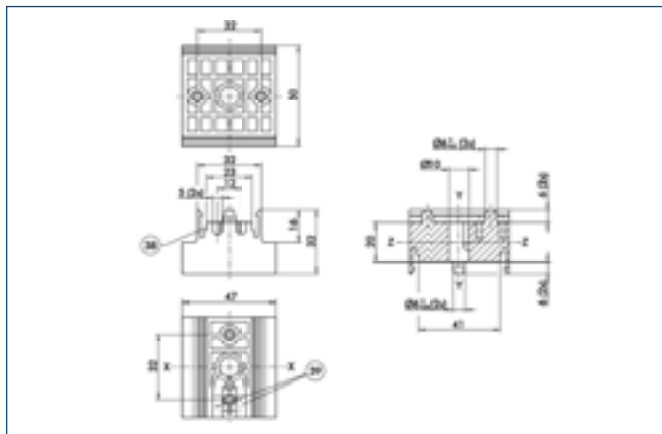
- ③⑧ Slot for disassembly tool
③⑨ Slot for air hose Ø4

Technical drawing of a mechanical part showing top and side views with dimensions:

- Top View:**
 - Overall width: $47^{+0.1}_{-0.1}$
 - Overall height: $45^{+0.1}_{-0.1}$
 - Distance between vertical centerlines: 32 ± 0.05
 - Distance between horizontal centerlines: 16 ± 0.05
 - Distance from top edge to first horizontal centerline: 32 ± 0.05
 - Distance from right edge to first vertical centerline: 16 ± 0.05
- Side View:**
 - Overall width: $47^{+0.1}_{-0.1}$
 - Overall height: 3.12 ± 0.05
 - Distance from front face to first vertical centerline: 6.5
 - Distance between vertical centerlines: $45^{+0.1}_{-0.1}$
 - Distance from last vertical centerline to back face: 6.5
 - Minimum thickness: $\min. 2$
 - Feature: $\varnothing 6H7$

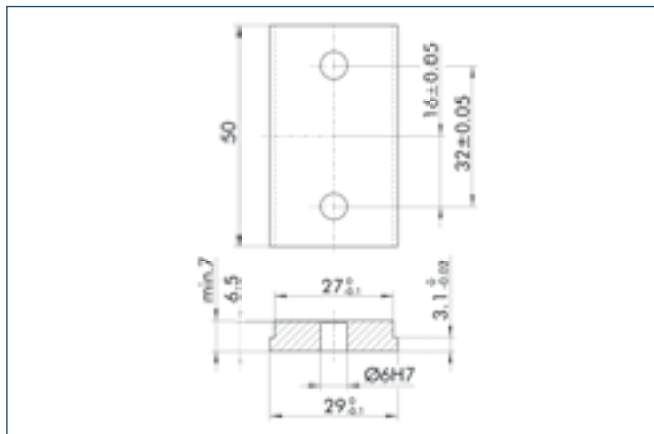
1109

Adapter plate



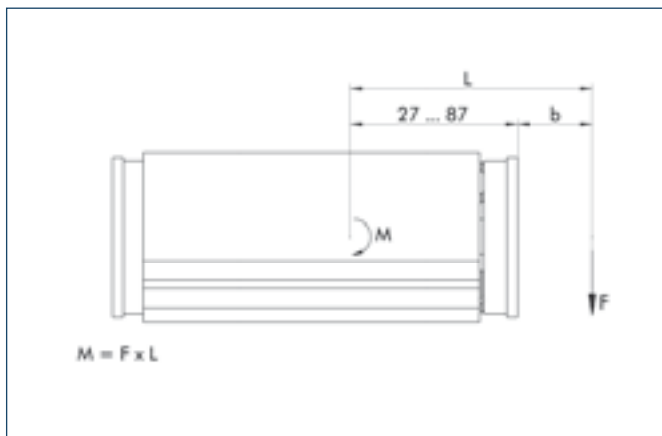
- ③⑧ Slot for disassembly tool
③⑨ Slot for air hose Ø4

Connecting element between gripper and linear unit or rotary unit



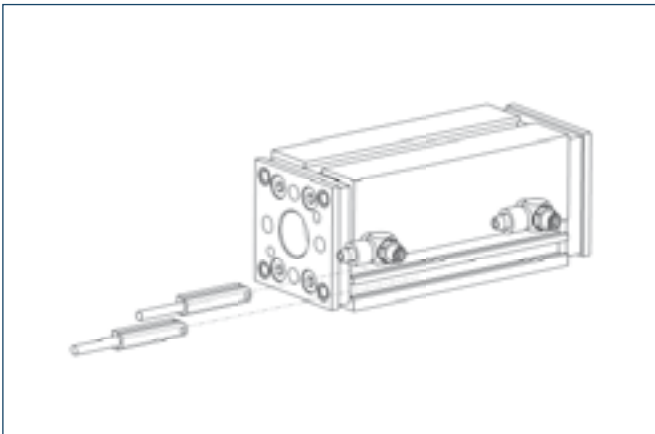
For connecting any modules you require to the linear unit or rotary unit with the V 55 connecting element

Bending moment



The drawing shows the center of rotation on which the leverage is based for the purpose of the bending moment calculation.

Sensor system



End position monitoring:

Electronic magnetic switches, for direct mounting

Description	ID	Recommended product
MMS 30-S-M12-PNP	0301571	
MMS 30-S-M8-PNP	0301471	•
MMSK 30-S-PNP	0301563	

❗ Two sensors (NO contacts) are required for each unit.

Extension cables for proximity switches/magnetic switches

Description	ID
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KV BW08-SG08 3P-0200-PNP	0301497
KV BW12-SG12 3P-0030-PNP	0301595
KV BW12-SG12 3P-0100-PNP	0301596
KV BW12-SG12 3P-0200-PNP	0301597

❗ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



You can find more detailed information and individual parts of the above-mentioned accessories in the “Accessories” catalog section.