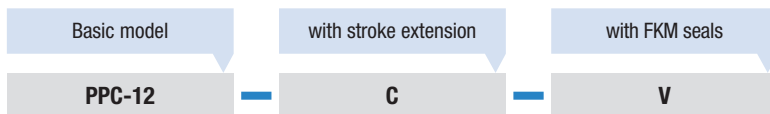


Designation	Total stroke in mm	Clamping force F at 6 bar incl. spring in N	Clamping force F at 0 bar incl. spring in N	Recommended Workpiece weight in kg	Page
PPC-12	10	1310	250	6.6	5144
PPC-12C	16	790	150	4	5146
PPC-25	13	2330	420	11.65	5148
PPC-25C	20	1460	260	7.3	5150
PPC-34	20	3870	810	19.3	5152
PPC-34C	30	2530	530	7.3	5154

Further options in every size, can also be combined (please select separately)



Technical specification:

Pneumatics

Operating pressure range	3 - 10 bar
Cylinder	double-acting
Dynamic seals	NBR seal, hardness 80 Shore A
For actuating required valves	
Double-acting	4/2-way valve
Single-acting	3/2-way valve

Air quality

Air filtering	40 μ or better
Air lubrication	not necessary*

Working temperature range

FKM seal (optional)	-25 °C to 200 °C
---------------------	------------------

Maintenance requirements

Expected service life	
Normal use	3 million cycles
with preventive maintenance	6 million cycles
Grippers can be repaired on site	yes
Set of seals available	yes

* Preventive maintenance extends the service life considerably.

3-jaw centric grippers PPC with through hole

Technical features

FKM seals

Optional for high-temperature applications

Protective sealings

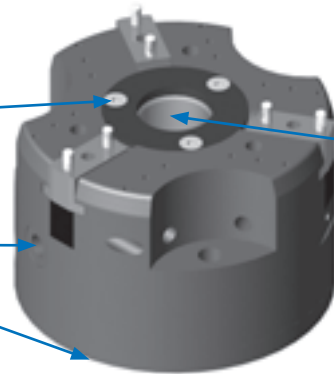
The grippers housing is protected against the penetration of chips and other particles into the interior mechanics.

Several air ports

Air port on the side or on top

Safety springs

Optional springs for internal gripping (-R) or external gripping (-RE), single-acting or as spring support.



Quality components

Components made of aluminum alloy, hard-anodized with Teflon® coating. The main components of the grippers are made of high-quality steel

Through hole design

The standard hole diameter can be adapted with optional bushes.

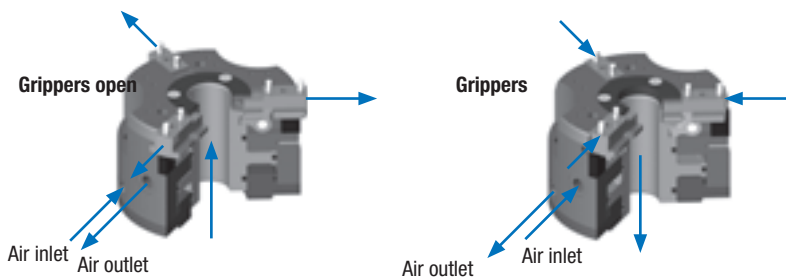
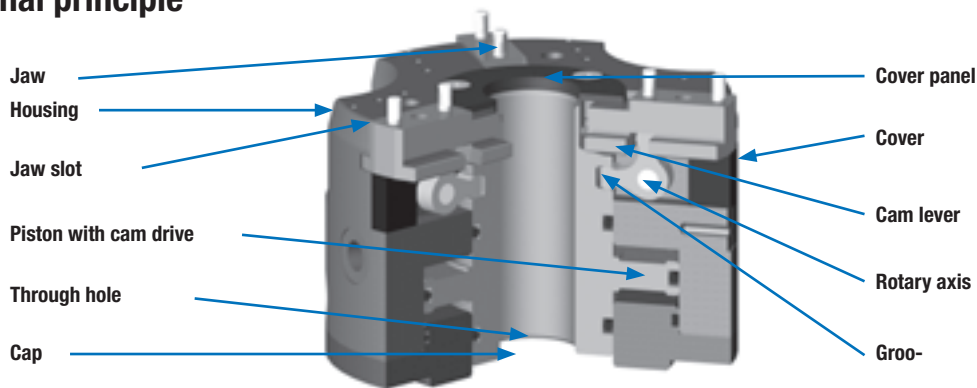
Standard and extended stroke

All grippers models are available with two stroke lengths.

Several sensor querying options

Magnetic field and inductive sensors available. Six positions can be queried.

Functional principle



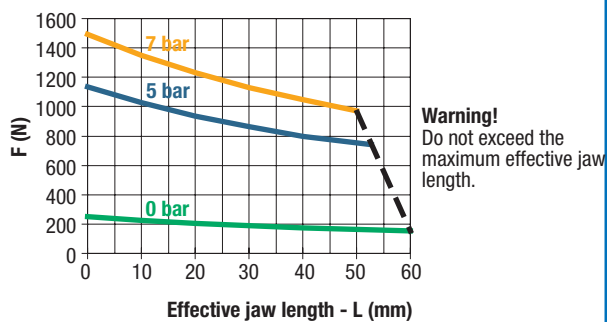
- A double-acting piston with a through-hole drives three cams.
- The piston movement causes the cam lever to rotate, which in turn moves the jaws.
- The three cams synchronize the jaw movement.
- Optionally available springs can be used to increase the gripping force or to firmly hold a part also if there is a failure in the air supply.
- The grippers is suitable for internal and external gripping.

Technical specification

Cylinder bore \varnothing	mm	63
Air consumption	cm ³	23
Closing/opening time	s	0.07/0.07
Repeatability	mm	± 0.02

Loading information

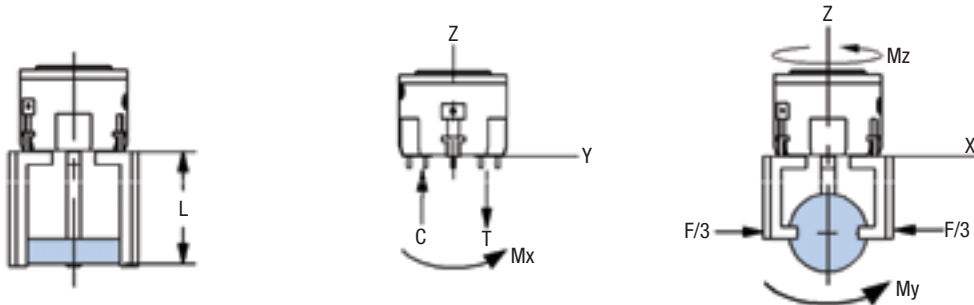
Total gripping force F



Maximum load open, grippers and jaws

	Static	Dynamic
Max. tensile strength T	850 N	220 N
Max. compressive strength C	1150 N	220 N
Max. moment M_x	20 Nm	6 Nm
Max. moment M_y	35 Nm	10 Nm
Max. moment M_z	50 Nm	10 Nm

Load data



Ordering specifications (basic model can be combined with options)

Basic model

with FKM seals

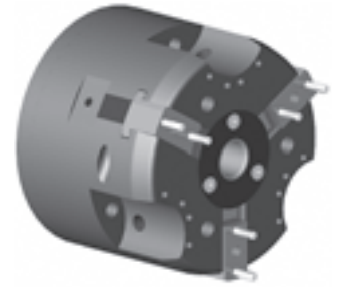
PPC-12

V

Accessories (please order separately)

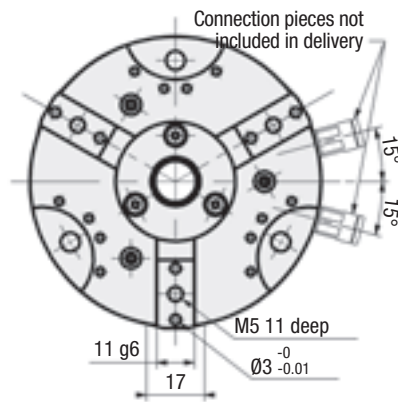
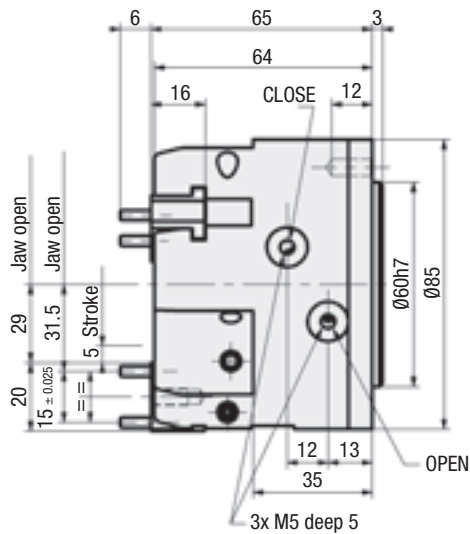
Sensors	Order no.	Quantity/unit
Holder for magnetic field sensor (2 holders, 1 magnetic holder, 2 spacers)	OSMK-105	1 or 2
Inductive sensor (PNP) M8 with QuickDisconnect	OISP-011-C	1 or 4
Quick-Disconnect cable (2m)	CABL-010	1 or 4
Pneumatic accessories		
Set of seals, standard	SLKT-207V	1
Repair kit	KSPPC12V	1

For further accessories, see page 5156

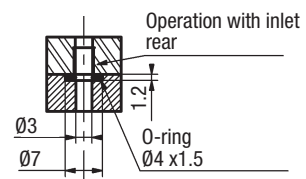
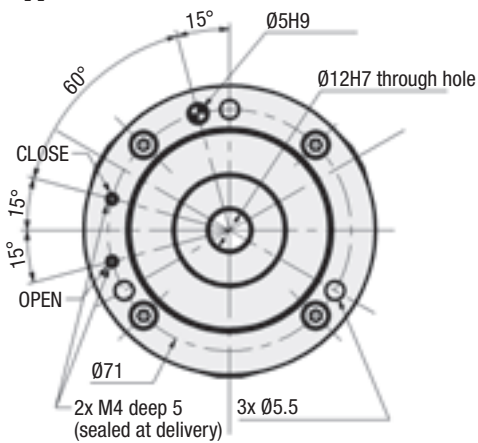


Technical specification

Total gripping force at 6 bar (L=0 and medium stroke)	N	1310
Total gripping force at 0 bar (L=0 and medium stroke)	N	250
Total stroke	mm	10
Recomm. workpiece weight	kg	6.6
Weight	kg	1.00
Operating pressure without springs	bar	2-10
Operating pressure with springs	bar	3-10



View "X"

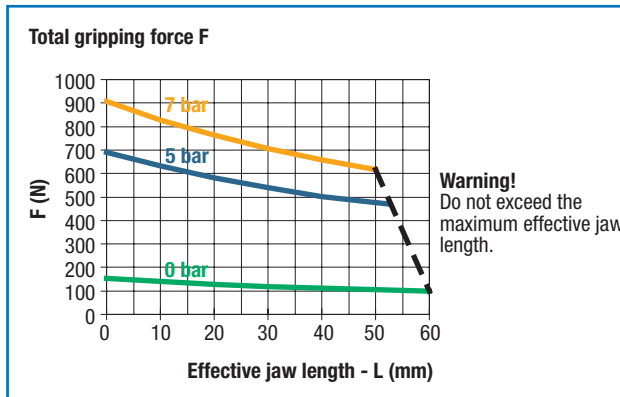


At the time of delivery, the lateral air ports are open and the top-lying ones are sealed. The seal dimensions of the upper air ports are given.

Technical specification

Cylinder bore \varnothing	mm	63
Air consumption	cm ³	23
Closing/opening time	s	0.07/0.07
Repeatability	mm	± 0.02

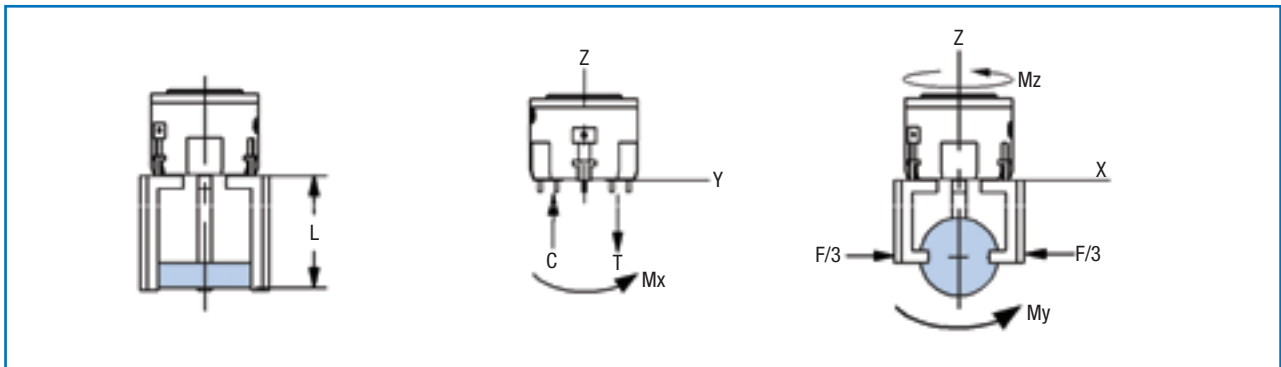
Gripping force diagram



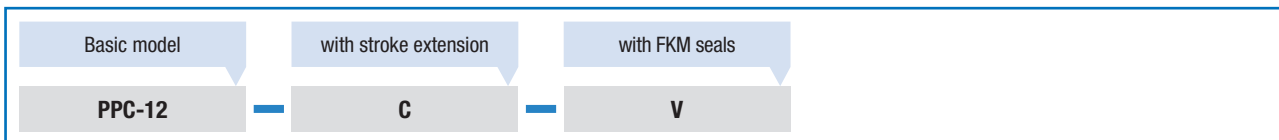
Maximum load open, grippers and jaws

	Static	Dynamic
Max. tensile strength T	950 N	175 N
Max. compressive strength C	1250 N	175 N
Max. moment M_x	20 Nm	4 Nm
Max. moment M_y	35 Nm	8 Nm
Max. moment M_z	60 Nm	8 Nm

Load data



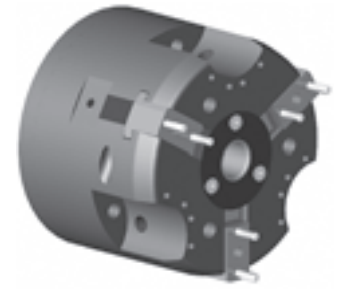
Ordering specifications (basic model can be combined with options)



Accessories (please order separately)

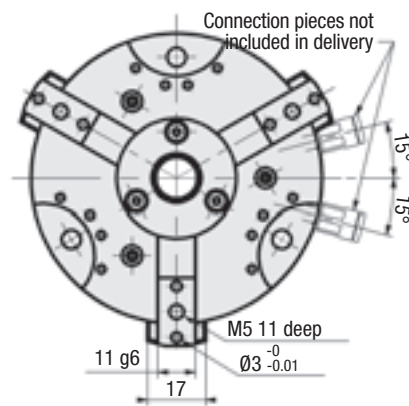
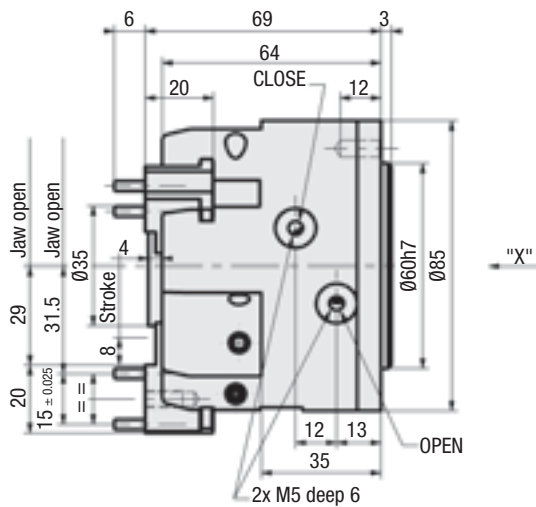
Sensors	Order no.	Quantity/unit
Holder for magnetic field sensor (2 holders, 1 magnetic holder, 2 spacers)	OSMK-105	1 or 2
Inductive sensor (PNP) M8 with QuickDisconnect	OISP-011-C	1 or 4
Quick-Disconnect cable (2m)	CABL-010	1 or 4
Pneumatic accessories		
Set of seals, standard	SLKT-207V	1
Repair kit	KSPPC12V	1

For further accessories, see page 5156

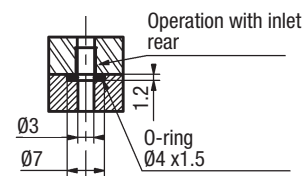
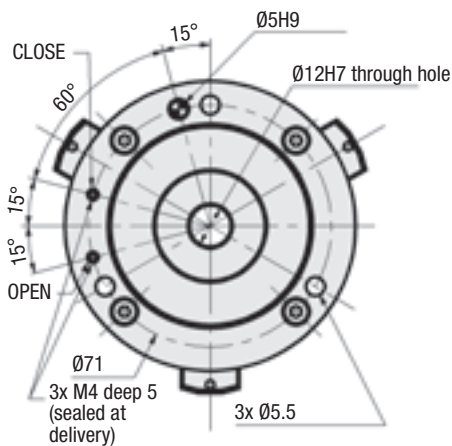


Technical specification

Total gripping force at 6 bar (L=0 and medium stroke)	N	790
Total gripping force at 0 bar (L=0 and medium stroke)	N	150
Total stroke	mm	16
Recomm. workpiece weight	kg	4
Weight	kg	1.10
Operating pressure without springs	bar	2-10
Operating pressure with springs	bar	3-10



View "X"

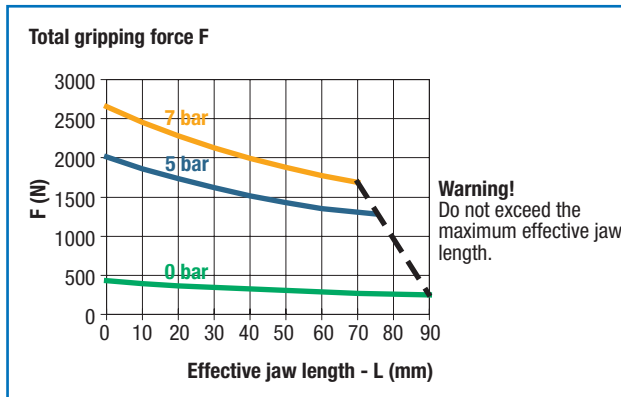


At the time of delivery, the lateral air ports are open and the top-lying ones are sealed. The seal dimensions of the upper air ports are given.

Technical specification

Cylinder bore \varnothing	mm	85
Air consumption	cm ³	51
Closing/opening time	s	0.09/0.09
Repeatability	mm	± 0.02

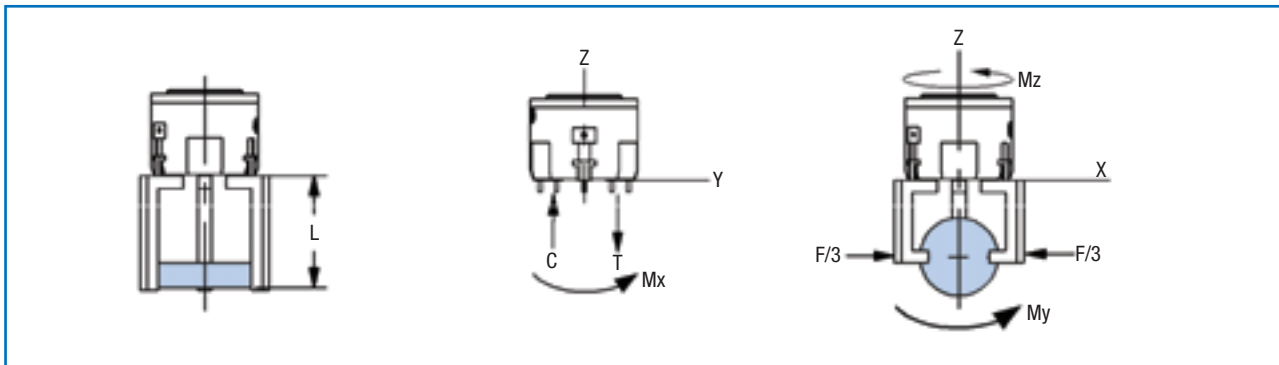
Gripping force diagram



Maximum load open, grippers and jaws

	Static	Dynamic
Max. tensile strength T	1300 N	390 N
Max. compressive strength C	1500 N	390 N
Max. moment M_x	30 Nm	13 Nm
Max. moment M_y	70 Nm	25 Nm
Max. moment M_z	65 Nm	25 Nm

Load data



Ordering specifications (basic model can be combined with options)

Basic model

with FKM seals

PPC-25

V

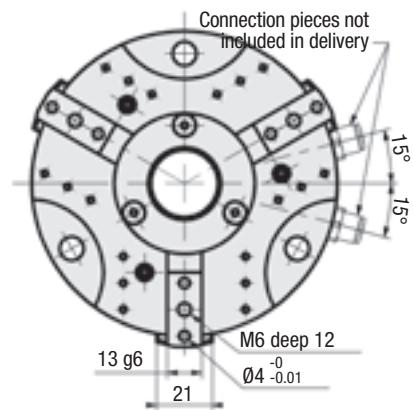
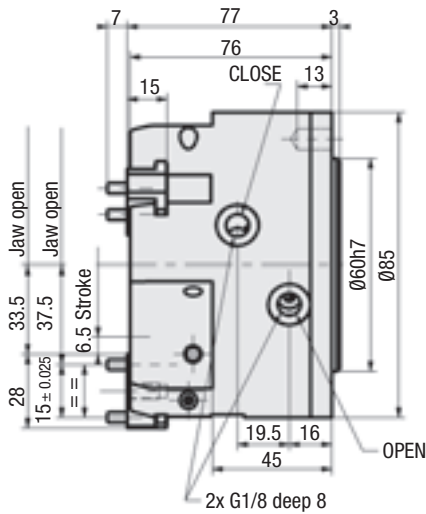
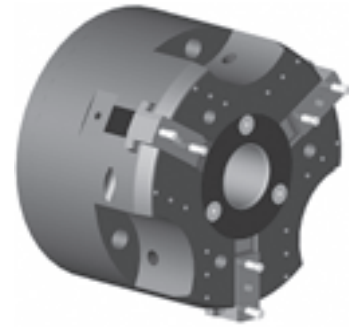
Accessories (please order separately)

Sensors	Order no.	Quantity/unit
Holder for magnetic field sensor (2 holders, 1 magnetic holder, 2 spacers)	OSMK-106	1 or 2
Inductive sensor (PNP) M8 with QuickDisconnect	OISP-011-C	1 or 4
Quick-Disconnect cable (2m)	CABL-010	1 or 4
Pneumatic accessories		
Set of seals, standard	SLKT-208V	1
Repair kit	KSPPC25V	1

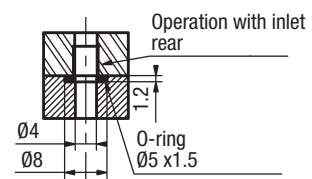
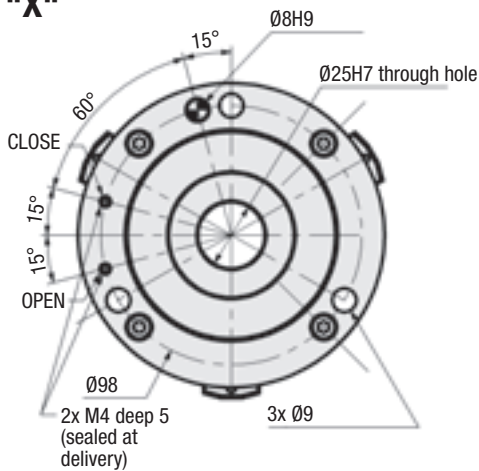
For further accessories, see page 5156

Technical specification

Total gripping force at 6 bar (L=0 and medium stroke)	N	2330
Total gripping force at 0 bar (L=0 and medium stroke)	N	420
Total stroke	mm	13
Recomm. workpiece weight	kg	11.65
Weight	kg	2.20
Operating pressure without springs	bar	2-10
Operating pressure with springs	bar	3-10



View "X"



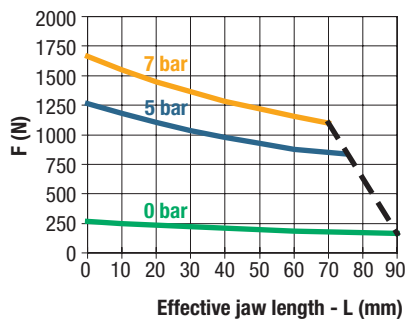
At the time of delivery, the lateral air ports are open and the top-lying ones are sealed. The seal dimensions of the upper air ports are given.

Technical specification

Cylinder bore \varnothing	mm	85
Air consumption	cm ³	51
Closing/opening time	s	0.09/0.09
Repeatability	mm	± 0.02

Gripping force diagram

Total gripping force F

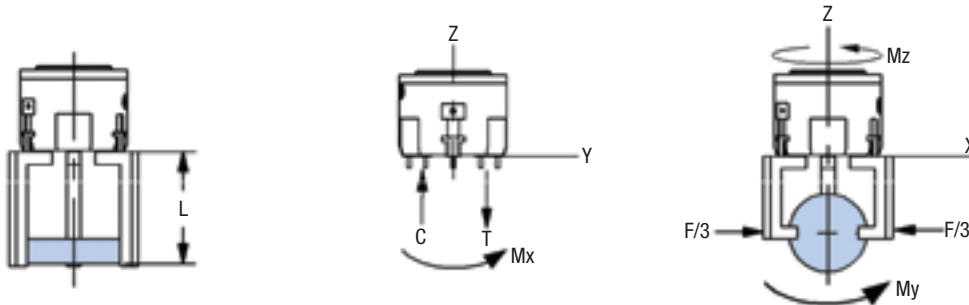


Warning!
Do not exceed the maximum effective jaw length.

Maximum load open, grippers and jaws

	Static	Dynamic
Max. tensile strength T	1300 N	320 N
Max. compressive strength C	1500 N	320 N
Max. moment M_x	30 Nm	9 Nm
Max. moment M_y	70 Nm	19 Nm
Max. moment M_z	65 Nm	19 Nm

Load data



Ordering specifications (basic model can be combined with options)

Basic model

with stroke extension

with FKM seals

PPC-25

C

V

Accessories (please order separately)

Sensors

	Order no.	Quantity/unit
Holder for magnetic field sensor (2 holders, 1 magnetic holder, 2 spacers)	OSMK-106	1 or 2
Inductive sensor (PNP) M8 with QuickDisconnect	OISP-011-C	1 or 4
Quick-Disconnect cable (2m)	CABL-010	1 or 4

Pneumatic accessories

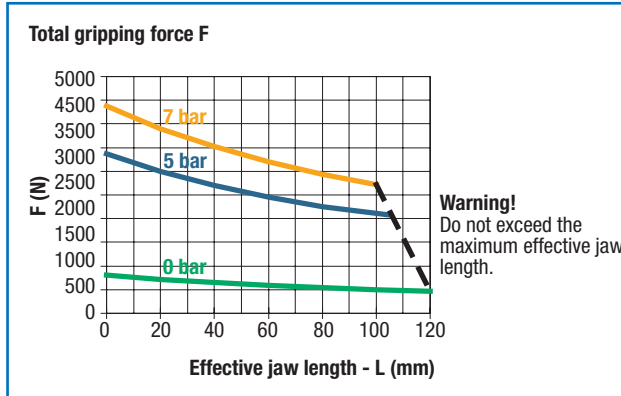
Set of seals, standard	SLKT-208V	1
Repair kit	KSPPC25V	1

For further accessories, see page 5156

Technical specification

Cylinder bore \varnothing	mm	110
Air consumption	cm ³	128
Closing/opening time	s	0.012/0.012
Repeatability	mm	± 0.02

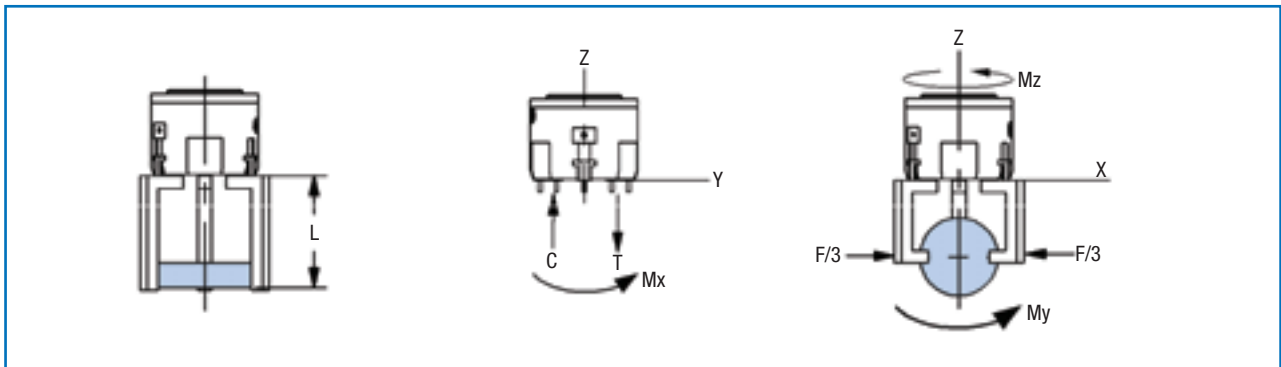
Gripping force diagram



Maximum load open, grippers and jaws

	Static	Dynamic
Max. tensile strength T	1950 N	640 N
Max. compressive strength C	2150 N	640 N
Max. moment M_x	65 Nm	32 Nm
Max. moment M_y	110 Nm	55 Nm
Max. moment M_z	100 Nm	55 Nm

Load data



Ordering specifications (basic model can be combined with options)

Basic model

with FKM seals

PPC-34

V

Accessories (please order separately)

Sensors

	Order no.	Quantity/unit
Holder for magnetic field sensor (2 holders, 1 magnetic holder, 2 spacers)	OSMK-107	1 or 2
Inductive sensor (PNP) M8 with QuickDisconnect	OISP-011-C	1 or 4
Quick-Disconnect cable (2m)	CABL-010	1 or 4

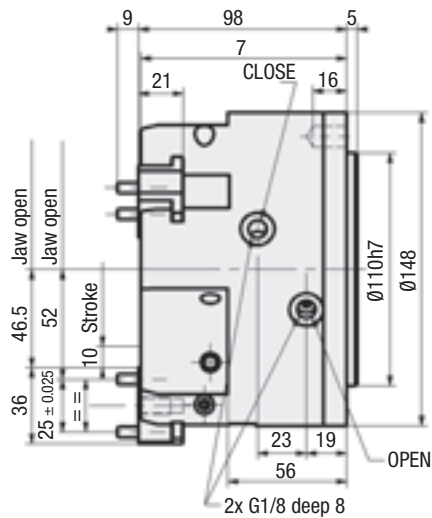
Pneumatic accessories

Set of seals, standard	SLKT-209V	1
Repair kit	KSPPC34V	1

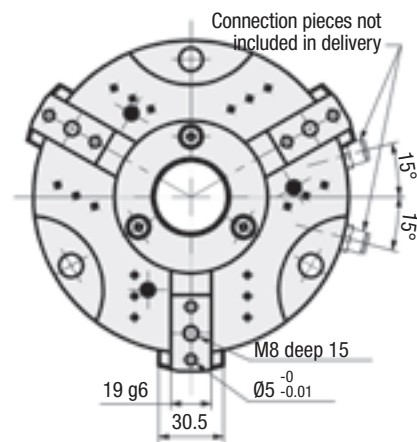
For further accessories, see page 5156

Technical specification

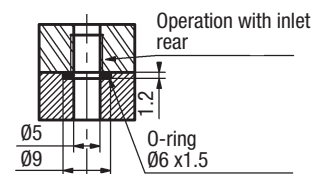
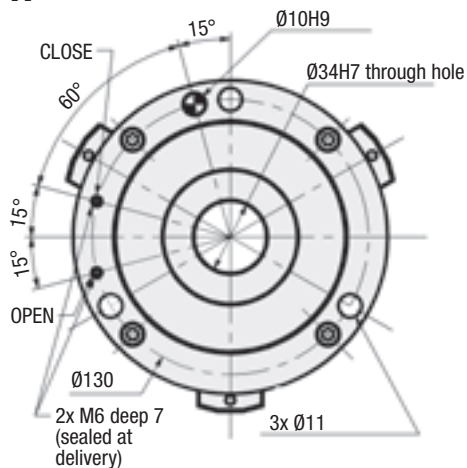
Total gripping force at 6 bar (L=0 and medium stroke)	N	3870
Total gripping force at 0 bar (L=0 and medium stroke)	N	810
Total stroke	mm	20
Recomm. workpiece weight	kg	19.3
Weight	kg	5.10
Operating pressure without springs	bar	2-10
Operating pressure with springs	bar	3-10



"X"



View "X"

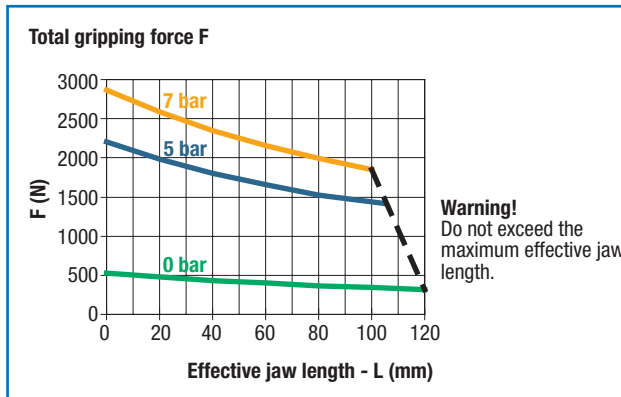


At the time of delivery, the lateral air ports are open and the top-lying ones are sealed. The seal dimensions of the upper air ports are given.

Technical specification

Cylinder bore \varnothing	mm	85
Air consumption	cm ³	51
Closing/opening time	s	0.09/0.09
Repeatability	mm	± 0.02

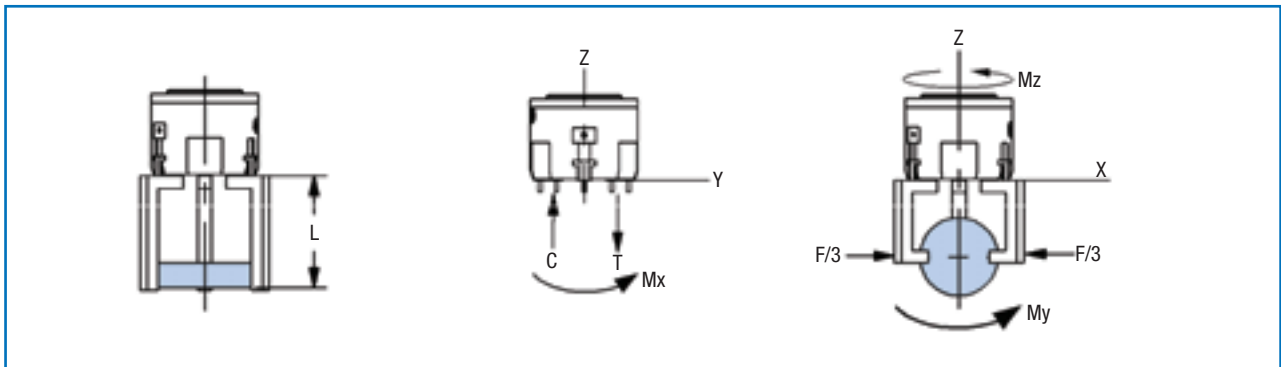
Gripping force diagram



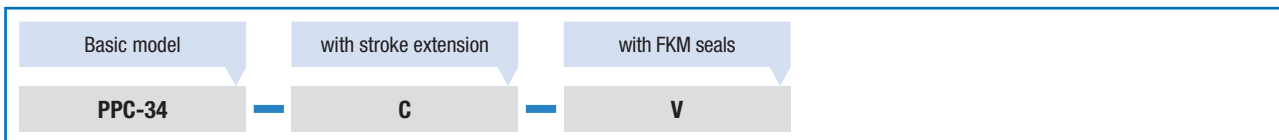
Maximum load open, grippers and jaws

	Static	Dynamic
Max. tensile strength T	2150 N	560 N
Max. compressive strength C	2350 N	560 N
Max. moment M_x	65 Nm	23 Nm
Max. moment M_y	120 Nm	45 Nm
Max. moment M_z	120 Nm	45 Nm

Load data



Ordering specifications (basic model can be combined with options)



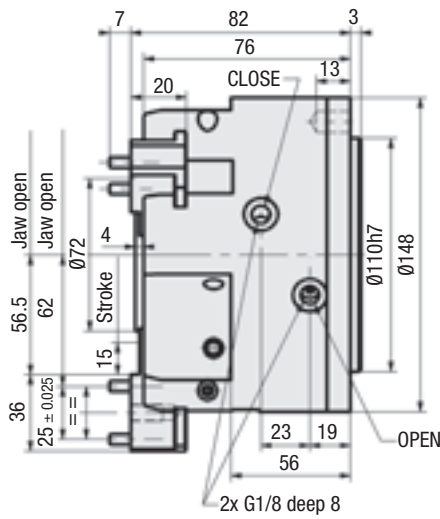
Accessories (please order separately)

Sensors	Order no.	Quantity/unit
Holder for magnetic field sensor (2 holders, 1 magnetic holder, 2 spacers)	OSMK-107	1 or 2
Inductive sensor (PNP) M8 with QuickDisconnect	OISP-011-C	1 or 4
Quick-Disconnect cable (2m)	CABL-010	1 or 4
Pneumatic accessories		
Set of seals, standard	SLKT-209V	1
Repair kit	KSPPC34V	1

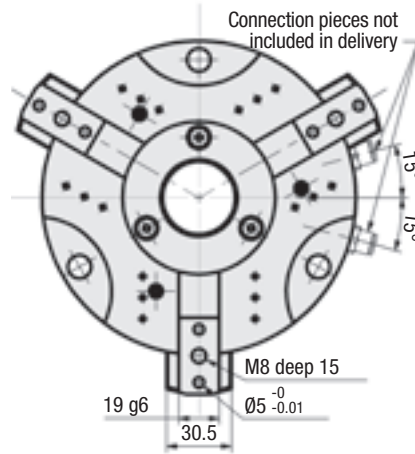
For further accessories, see page 5156

Technical specification

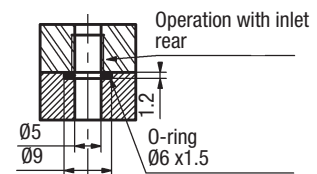
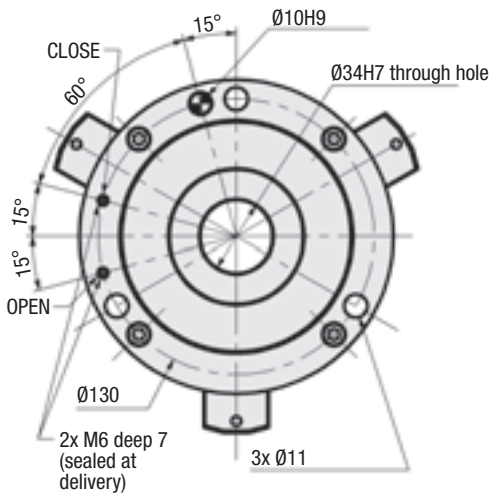
Total gripping force at 6 bar (L=0 and medium stroke)	N	1460
Total gripping force at 0 bar (L=0 and medium stroke)	N	260
Total stroke	mm	30
Recomm. workpiece weight	kg	7.3
Weight	kg	2.30
Operating pressure without springs	bar	2-10
Operating pressure with springs	bar	3-10



"X"



View "X"

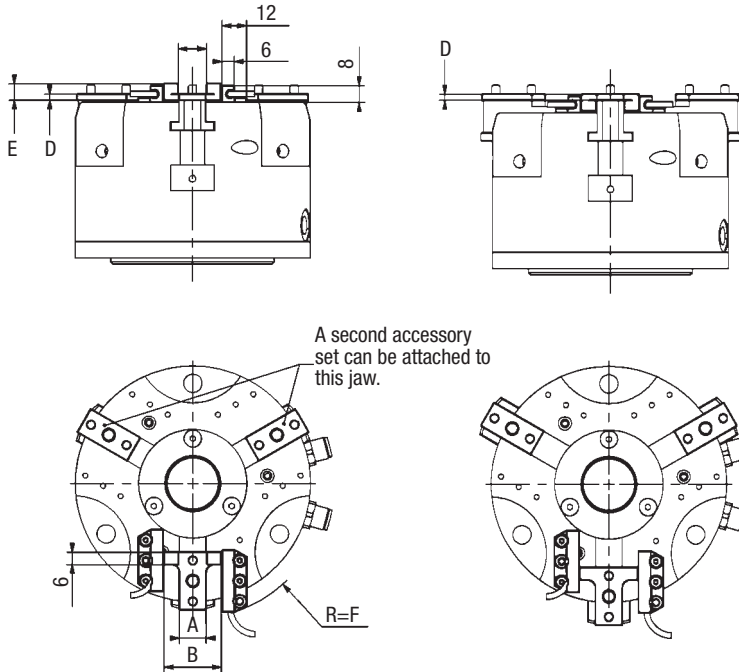


At the time of delivery, the lateral air ports are open and the top-lying ones are sealed. The seal dimensions of the upper air ports are given.

Accessories (SM): Holder for magnetic field sensors

Query of up to 2 positions: Jaws open, jaws closed or jaws clamped on the part These accessories can be used with standard stroke grippers and grippers with extended stroke (option C). The accessory set (SM) contains: 2 sensor holders, 1 magnetic holder, 2 spacers and mounting screws. Sensors are not included.

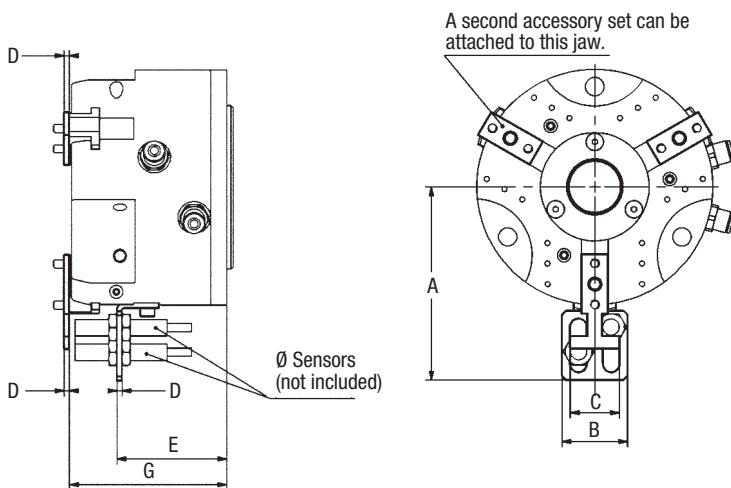
Remark: A third or additional position can be queried by attaching an accessory set (SM) to each jaw holder.



	A	B	C	D	E	F
PPC-12	11	26	12	4	8	46
PPC-12-C	11	26	-	4	4	46
PPC-25	13	28	14	3	8	66
PPC-25-C	13	28	-	3	3	66
PPC-34	19	34	20	2	8	76
PPC-34-C	19	34	-	3	3	76

Accessories (SD): Holder for inductive sensors

Query of up to 2 positions: Jaws open, jaws closed or jaws clamped on the part The accessory set (SD) contains: 1 sensor holder, 1 flag, 2 spacers and mounting screws. **Sensors are not included.**



	A	B	C	D	E	F	G
PPC-12	79.5	32	24	2.5	43.75	M8	65
PPC-12-C	79.5	32	24	2.5	43.75	M8	69
PPC-25	94.5	32	24	2.5	53.75	M8	77
PPC-25-C	94.5	32	24	2.5	53.75	M8	82
PPC-34	119	32	24	2.5	72.05	M8	98
PPC-34-C	119	32	24	2.5	72.05	M8	103

