

Designation	Total stroke in mm	max. reachable gripping force in N	Recommended workpiece weight in kg	Page
RP-11M	6.4	150	0.75	5084
RP-12M	9.5	150	0.75	5086
RP-15M	12.7	266	1.3	5088
RP-17M	19	840	4.2	5090
RP-18M	31.8	1525	7.63	5092
RP-19M	50.8	2290	11.45	5094

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



Technical specification:

Pneumatics	
Operating pressure range	3 - 7 bar
Type of cylinder	double-acting
Dynamic seal	internal lubrication, NBR
Actuation valve	4/2-way
Air quality	
Air filtering	min. 40 µ
Air lubrication not required*	
Operating temperature range	
NBR-N seal (standard)	-20 °C to 70 °C
FKM seal (optional)	-25 °C to 200 °C
Maintenance	
Service life	
Normal use	5 million cycles
With preventive maintenance	> 10 million cycles*
Repair in the field possible	yes
Seal sets available	yes

* Preventive maintenance increases the service life considerably

Parallel grippers RP with double-wedge drive

Technical features

Self-lubricating seals

Dynamic seals with self-lubrication (NBR-N only)

Sensors and holder

For determining the jaw position (please select separately)

Attachment openings for accessory parts

(For attaching the sensors)

Robust design

The jaws are guided over the entire length of the housing. The high precision optimally reduces backlash.

Compact design

Extremely compact and robust design

Quality materials

The movable parts are made of hardened material for reducing wear and prolonging the service life.

One-piece housing

One-piece housing made of light, high-strength aluminum (7075-T6)

Pin bores

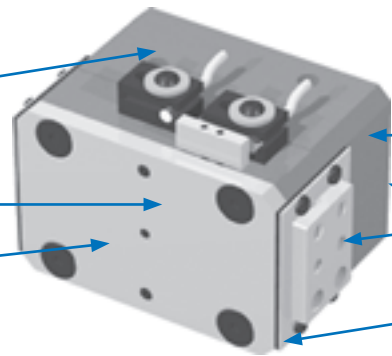
Push-in holes for dowel pins in housing and grippers jaws

Encapsulated housing

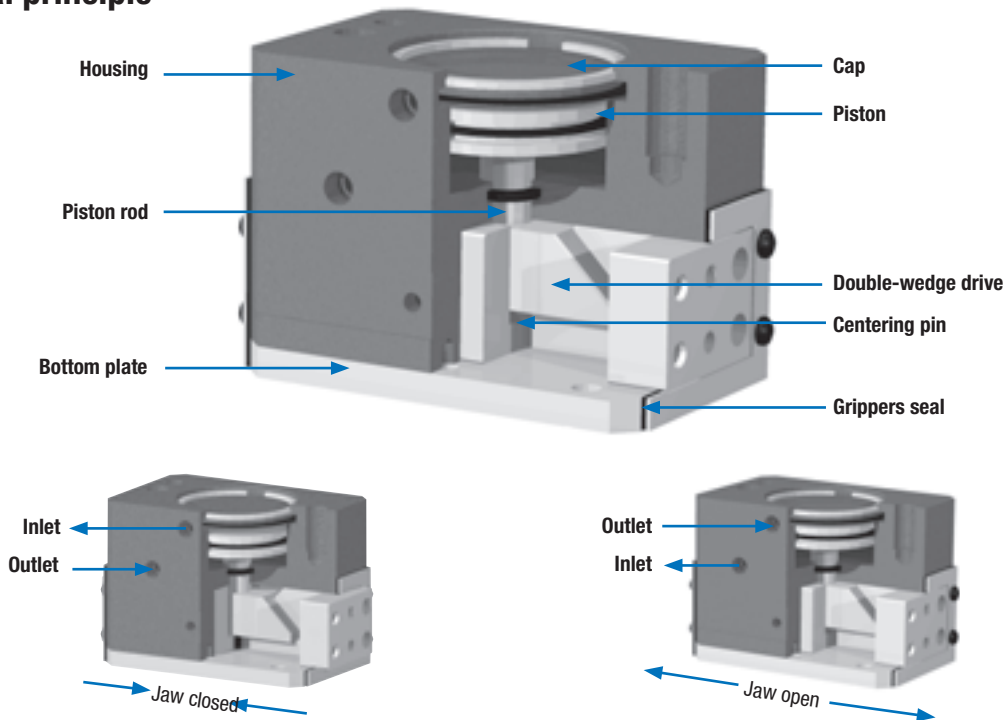
The unit prevents dirt particles from penetrating (not on RP-11 and RP-12)

Hard-anodized material

Hard-anodized (RC60) and Teflon-coated housing



Functional principle



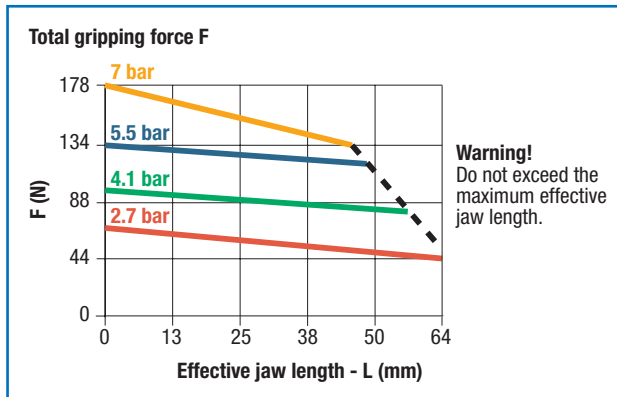
- A double-acting piston is connected to a double-wedge drive via a piston rod.
- The drive wedge moves in a slot in each grippers jaw, thereby converting the vertical wedge movement into a synchronous horizontal movement of the grippers jaws.
- The large surface area of the wedge minimizes wear caused by friction.
- Suitable for gripping movements to the inside or outside

Technical specification

Operating temperature min./max.

Standard seals	°C	-20 to 70
FKM seals	°C	-25 to 200
Closing/opening time	s	0.10
Absolute precision	mm	±0.05
Repeatability	mm	±0.03
Actuation valve		4/2-way

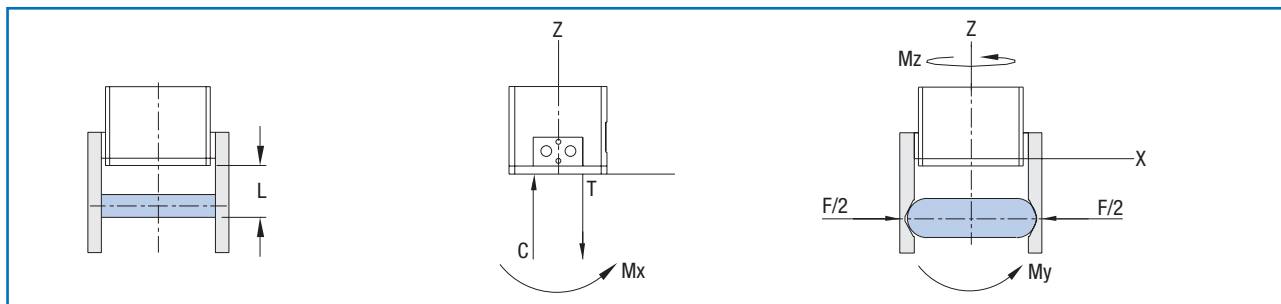
Gripping force diagram



Maximum load on grippers and jaws

	Static	Dynamic
Max. tensile load T	445 N	111 N
Max. compressive load C	890 N	111 N
Max. moment M_x	11 Nm	2 Nm
Max. moment M_y	11 Nm	2 Nm
Max. moment M_z	11 Nm	2 Nm

Load data



Ordering specifications (basic model can be combined with options)

Basic model	with FKM seals
RP-11M	V

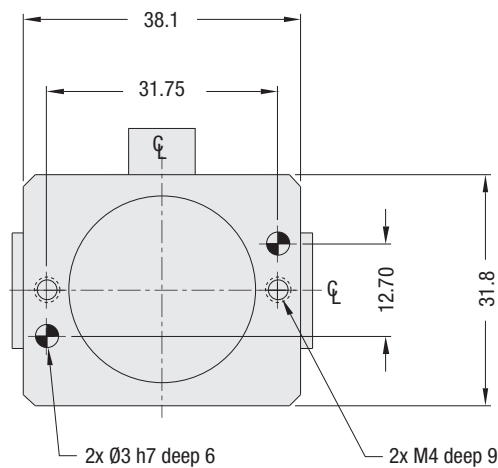
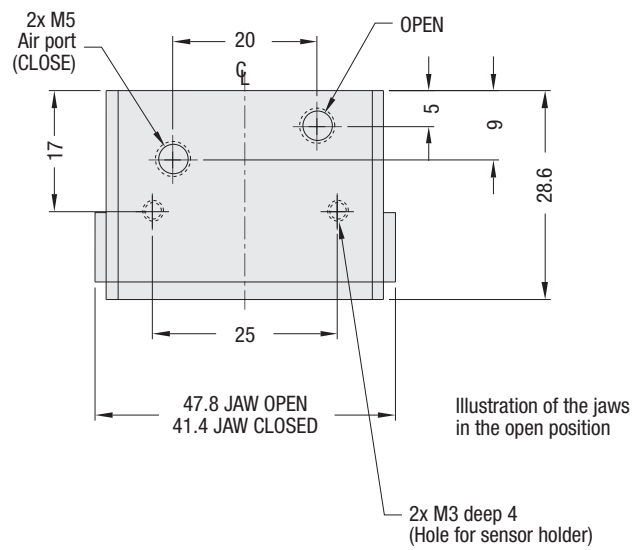
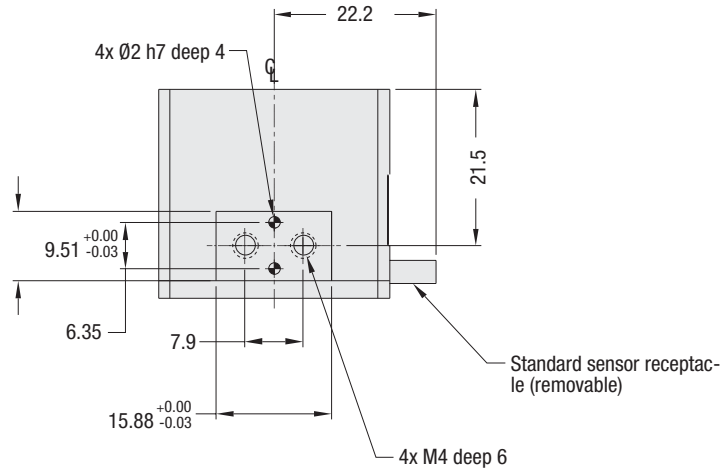
Accessories (please order separately)

Sensors	Order no.	Quantity/unit
Holder for 2 sensors	OSMK-003	1
Inductive sensor NPN with quick disconnection	OISP-019-C	1 or 2
Cable with quick disconnection (2 m)	CABL-010	1 or 2

Pneumatic accessories	Order no.	Quantity/unit
Safety valve 1/4 NPT	OFSV-004	1
Set of seals, standard	SLKT-036	1
Set of seals, FKM	SLKT-036V	1

Technical specification

Total gripping force F at 6 bar	N	150
Total stroke	mm	6.4
Recomm. workpiece weight	kg	0.75
Weight	kg	0.12
Operating pressure min./max.	bar	3-7
Cylinder diameter	mm	25.4
Air consumption/cycle	cm ³	1.6

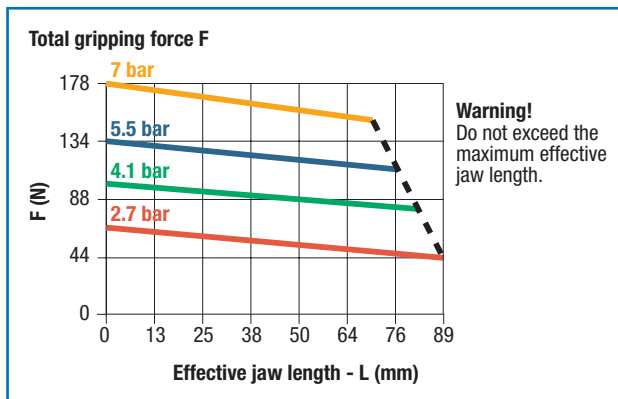


Technical specification

Operating temperature min./max.

Standard seals	°C	-20 to 70
FKM seals	°C	-25 to 200
Closing/opening time	s	0.10
Absolute precision	mm	±0.05
Repeatability	mm	±0.03
Actuation valve		4/2-way

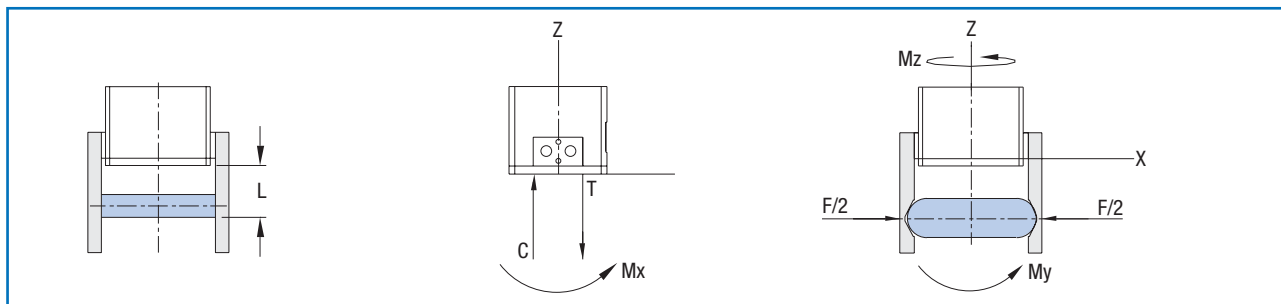
Gripping force diagram



Maximum load on grippers and jaws

	Static	Dynamic
Max. tensile load T	890 N	111 N
Max. compressive load C	1779 N	111 N
Max. moment M_x	17 Nm	3 Nm
Max. moment M_y	17 Nm	3 Nm
Max. moment M_z	17 Nm	3 Nm

Load data



Ordering specifications (basic model can be combined with options)

Basic model	with FKM seals
RP-12M	V

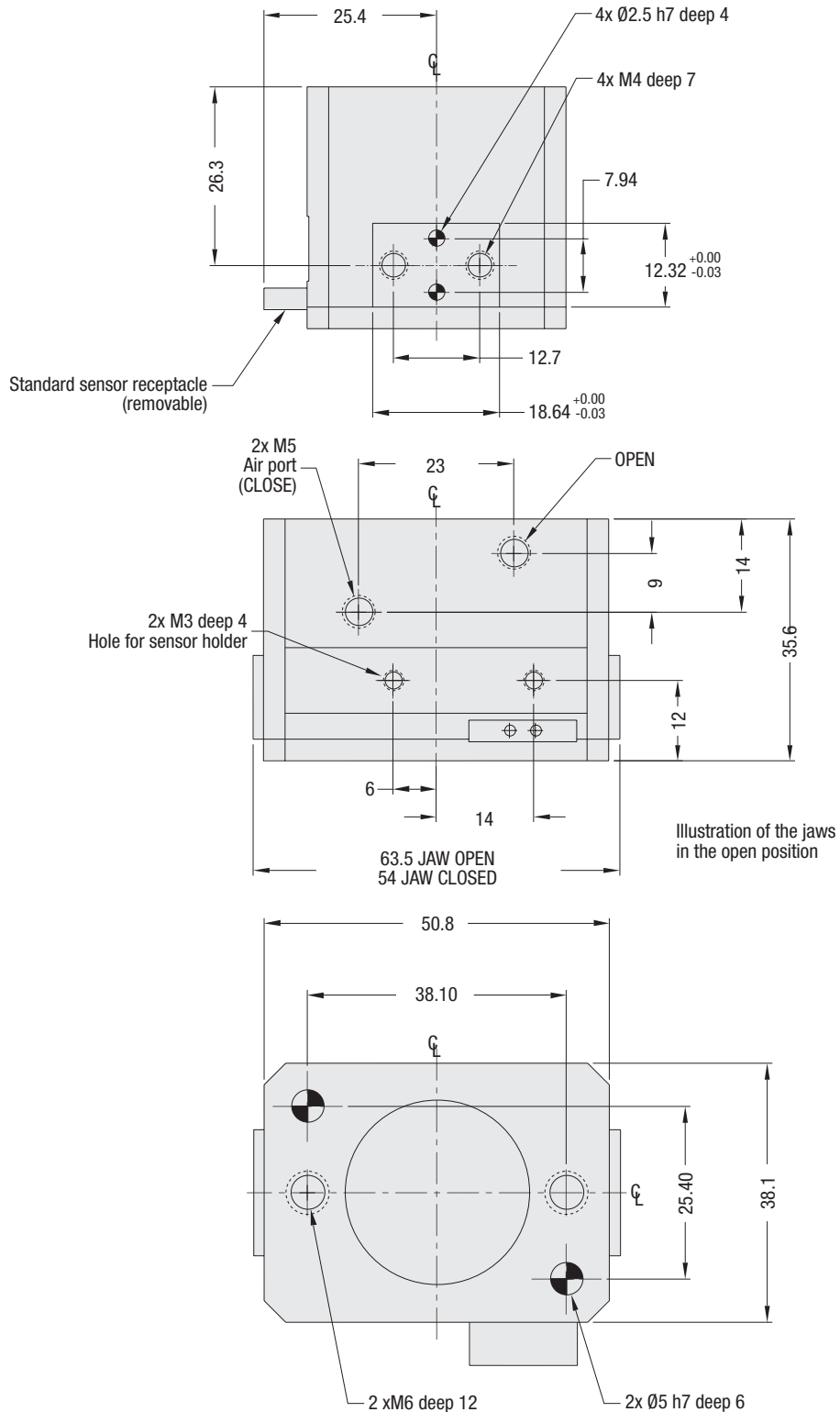
Accessories (please order separately)

Sensors	Order no.	Quantity/unit
Holder for 2 sensors	OSMK-003	1
Inductive sensor NPN with quick disconnection	OISP-019-C	1 or 2
Cable with quick disconnection (2 m)	CABL-010	1 or 2

Pneumatic accessories	Order no.	Quantity/unit
Safety valve 1/4 NPT	OFSV-004	1
Set of seals, standard	SLKT-040	1
Set of seals, FKM	SLKT-040V	1

Technical specification

Total gripping force F at 6 bar	N	150
Total stroke	mm	9.5
Recomm. workpiece weight	kg	0.75
Weight	kg	0.25
Operating pressure min./max.	bar	3-7
Cylinder diameter	mm	25.4
Air consumption/cycle	cm ³	2.5

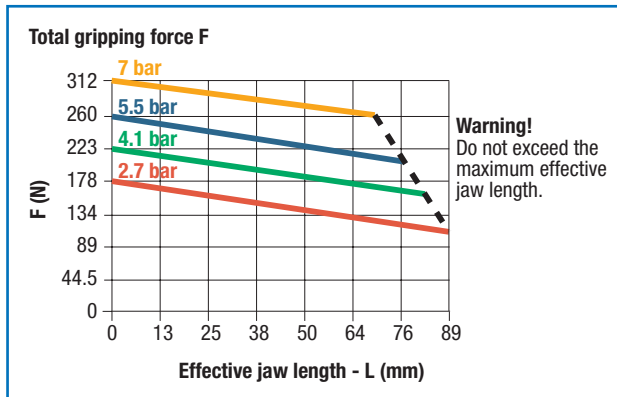


Technical specification

Operating temperature min./max.

Standard seals	°C	-20 to 70
FKM seals	°C	-25 to 200
Closing/opening time	s	0.13
Absolute precision	mm	±0.05
Repeatability	mm	±0.03
Actuation valve		4/2-way

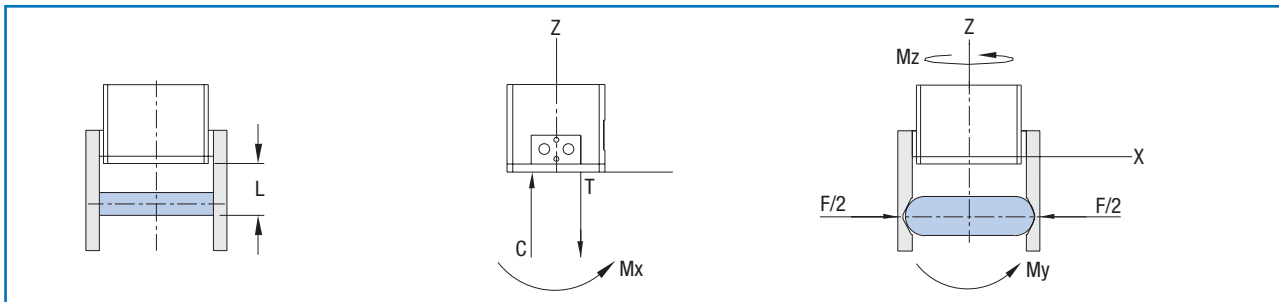
Gripping force diagram



Maximum load on grippers and jaws

	Static	Dynamic
Max. tensile load T	1779 N	222 N
Max. compressive load C	3336 N	222 N
Max. moment M_x	34 Nm	6 Nm
Max. moment M_y	34 Nm	6 Nm
Max. moment M_z	34 Nm	6 Nm

Load data



Ordering specifications (basic model can be combined with options)

Basic model	with FKM seals
RP-15M	V

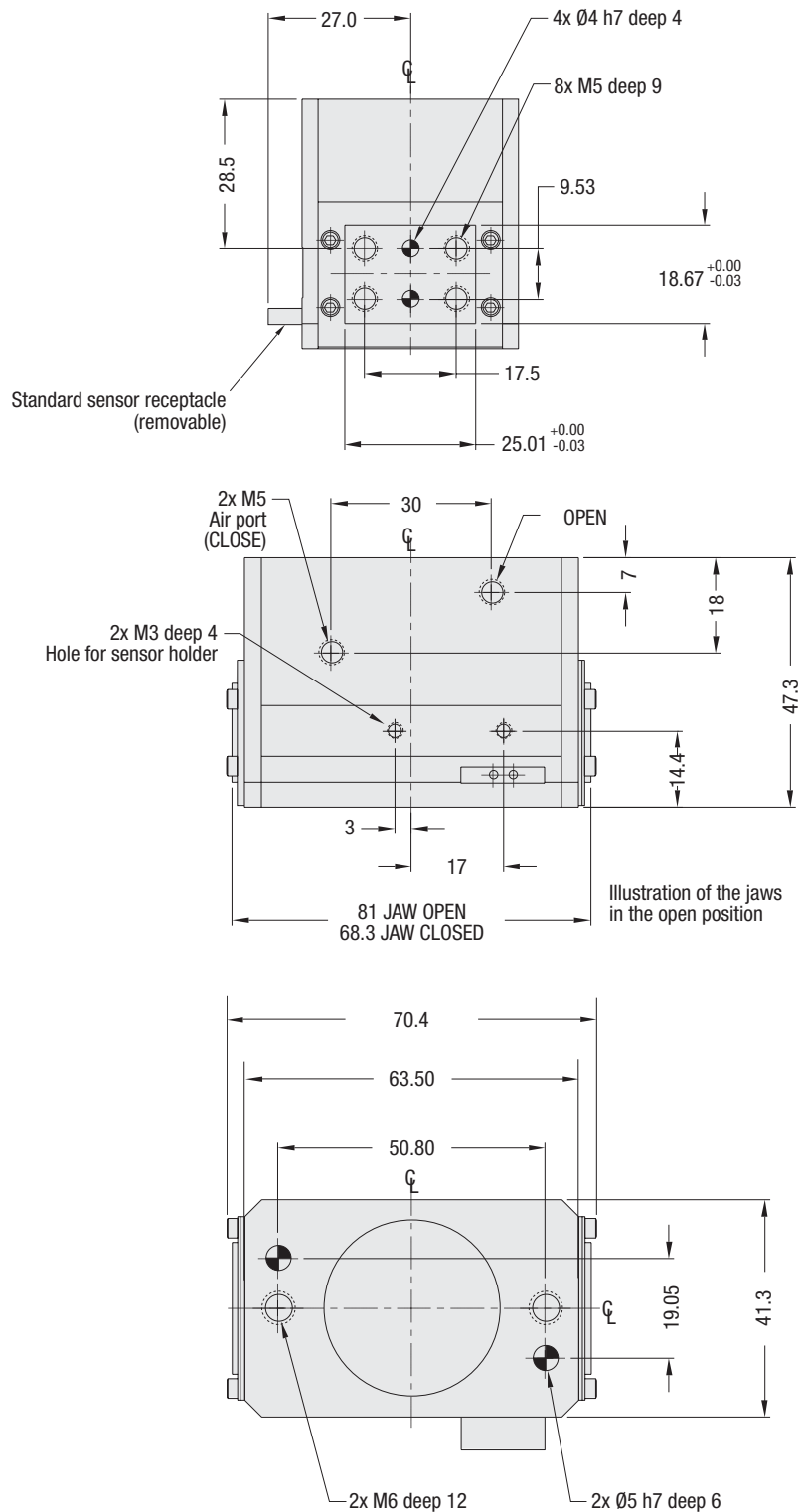
Accessories (please order separately)

Sensors	Order no.	Quantity/unit
Holder for 2 sensors	OSMK-003	1
Inductive sensor NPN with quick disconnection	OISP-019-C	1 or 2
Cable with quick disconnection (2 m)	CABL-010	1 or 2

Pneumatic accessories	Order no.	Quantity/unit
Safety valve 1/4 NPT	OFSV-004	1
Set of seals, standard	SLKT-041	1
Set of seals, FKM	SLKT-041V	1

Technical specification

Total gripping force F at 6 bar	N	266
Total stroke	mm	12.7
Recomm. workpiece weight	kg	1.3
Weight	kg	0.5
Operating pressure min./max.	bar	3-7
Cylinder diameter	mm	31.8
Air consumption/cycle	cm ³	4.9

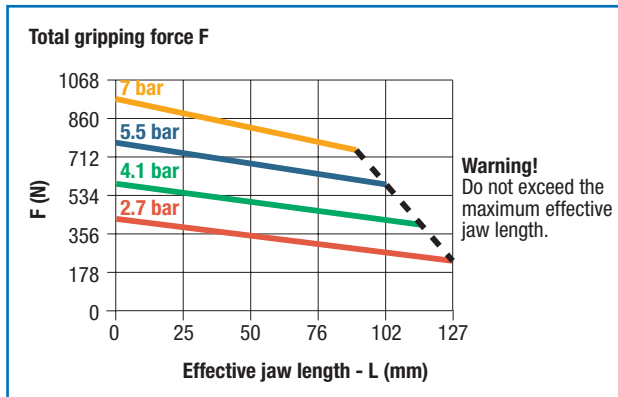


Technical specification

Operating temperature min./max.

Standard seals	°C	-20 to 70
FKM seals	°C	-25 to 200
Closing/opening time	s	0.18
Absolute precision	mm	±0.08
Repeatability	mm	±0.03
Actuation valve		4/2-way

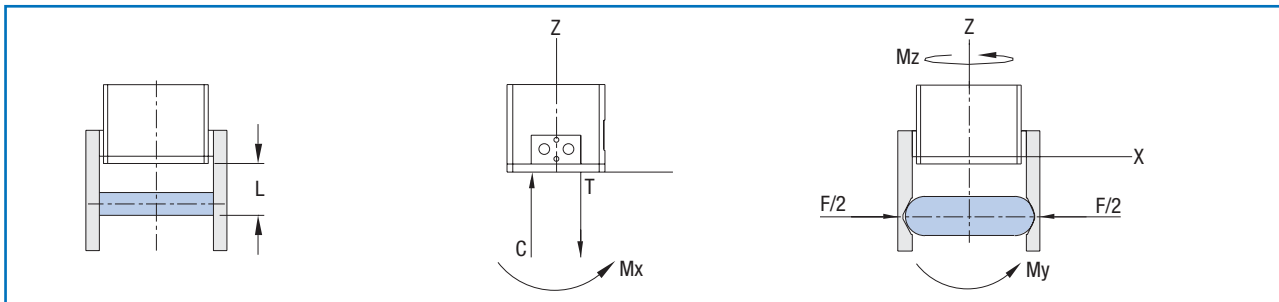
Gripping force diagram



Maximum load on grippers and jaws

	Static	Dynamic
Max. tensile load T	3336 N	445 N
Max. compressive load C	6672 N	445 N
Max. moment M_x	85 Nm	14 Nm
Max. moment M_y	85 Nm	14 Nm
Max. moment M_z	85 Nm	14 Nm

Load data



Ordering specifications (basic model can be combined with options)

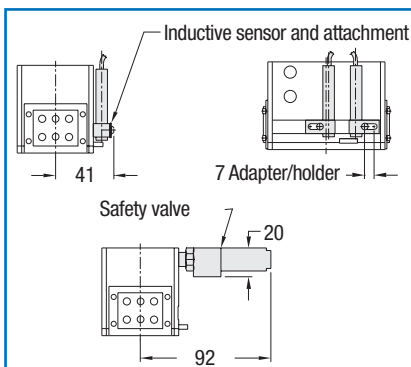
Basic model

with FKM seals

RP-17M

V

Accessories (please order separately)



Sensors

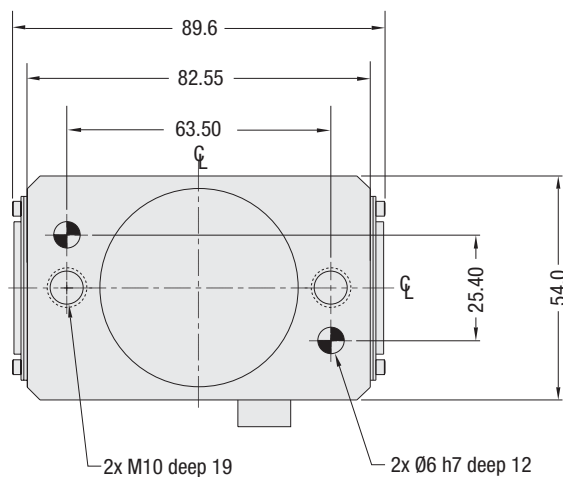
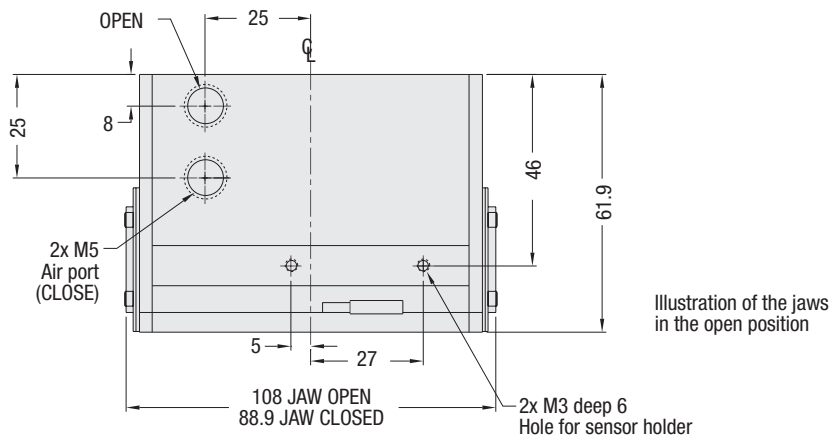
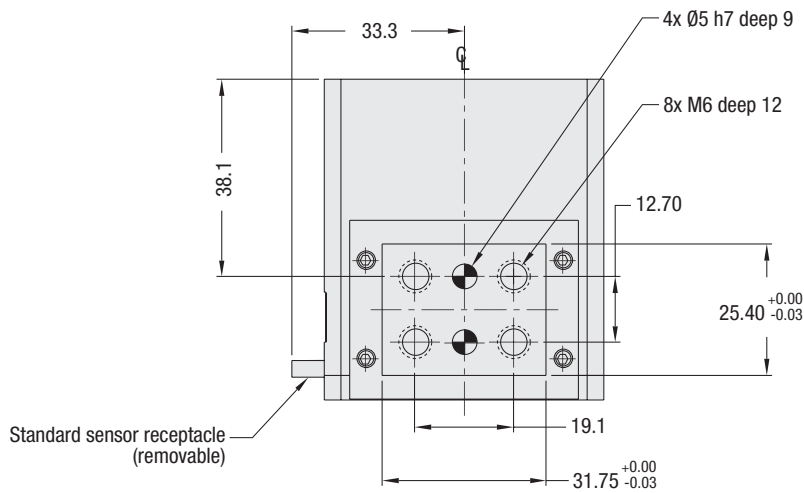
	Order no.	Quantity/unit
Holder for 2 sensors	OSMK-072	1
Inductive sensor NPN with quick disconnection	OISP-011-C	1 or 2
Cable with quick disconnection (2 m)	CABL-010	1 or 2

Pneumatic accessories

Safety valve 1/4 NPT	OFSV-005	1
Set of seals, standard	SLKT-042	1
Set of seals, FKM	SLKT-042V	1

Technical specification

Total gripping force F at 6 bar	N	840
Total stroke	mm	19
Recomm. workpiece weight	kg	4.2
Weight	kg	1.1
Operating pressure min./max.	bar	3-7
Cylinder diameter	mm	46.1
Air consumption/cycle	cm ³	22.9

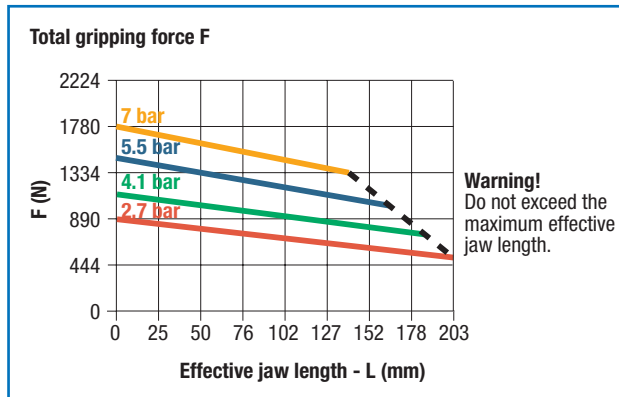


Technical specification

Operating temperature min./max.

Standard seals	°C	-20 to 70
FKM seals	°C	-25 to 200
Closing/opening time	s	0.22
Absolute precision	mm	±0.08
Repeatability	mm	±0.03
Actuation valve		4/2-way

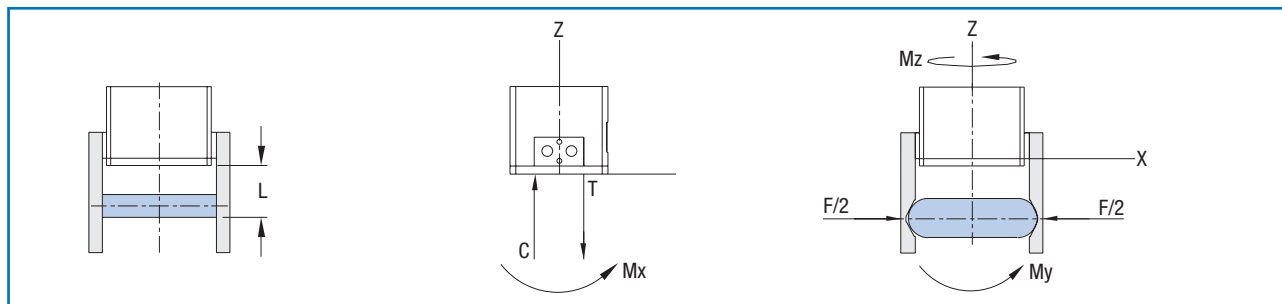
Gripping force diagram



Maximum load on grippers and jaws

	Static	Dynamic
Max. tensile load T	6672 N	1112 N
Max. compressive load C	13345 N	1112 N
Max. moment M_x	170 Nm	28 Nm
Max. moment M_y	170 Nm	28 Nm
Max. moment M_z	170 Nm	28 Nm

Load data



Ordering specifications (basic model can be combined with options)

Basic model	with FKM seals
RP-18M	V

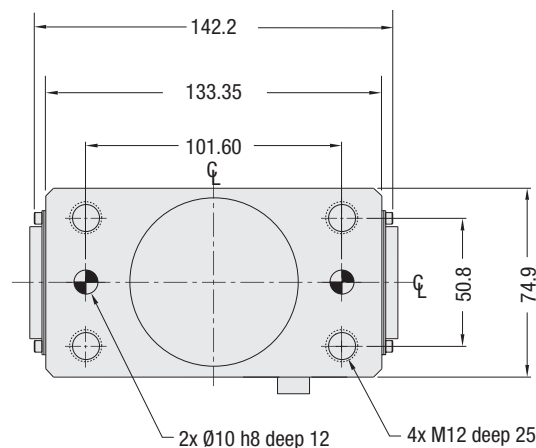
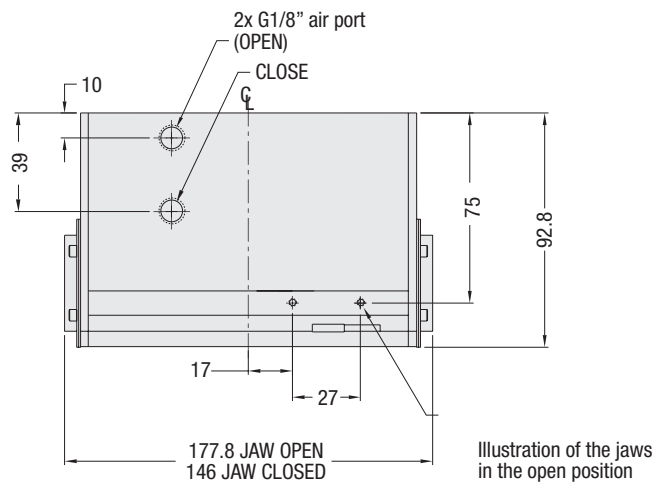
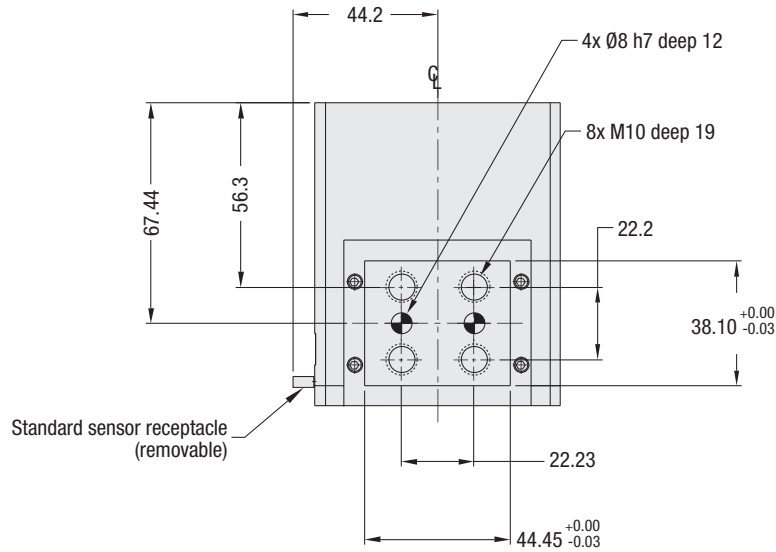
Accessories (please order separately)

Sensors	Order no.	Quantity/unit
Holder for 2 sensors	OSMK-072	1
Inductive sensor NPN with quick disconnection	OISP-011-C	1 or 2
Cable with quick disconnection (2 m)	CABL-010	1 or 2

Pneumatic accessories	Order no.	Quantity/unit
Safety valve 1/4 NPT	OFSV-005	1
Set of seals, standard	SLKT-042	1
Set of seals, FKM	SLKT-042V	1

Technical specification

Total gripping force F at 6 bar	N	1525
Total stroke	mm	31.8
Recomm. workpiece weight	kg	7.63
Weight	kg	3.5
Operating pressure min./max.	bar	3-7
Cylinder diameter	mm	63.5
Air consumption/cycle	cm ³	72.1

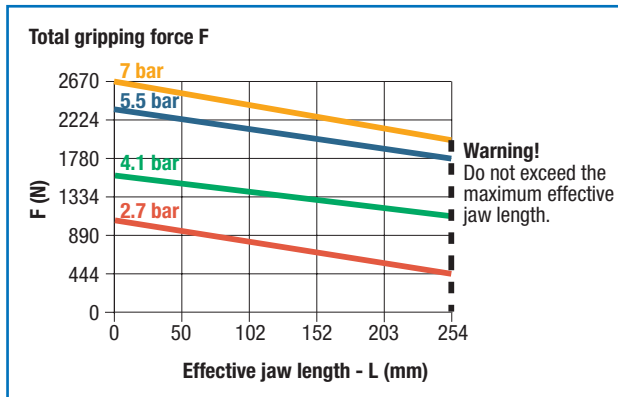


Technical specification

Operating temperature min./max.

Standard seals	°C	-20 to 70
FKM seals	°C	-25 to 200
Closing/opening time	s	0.50
Absolute precision	mm	±0.08
Repeatability	mm	±0.03
Actuation valve		4/2-way

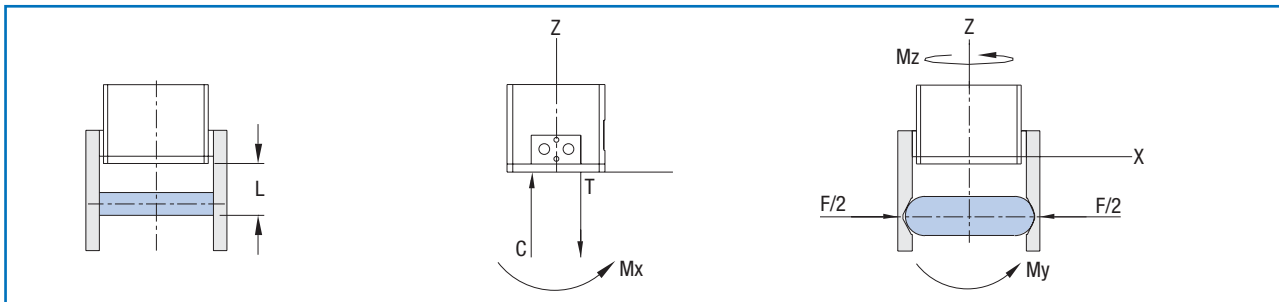
Gripping force diagram



Maximum load on grippers and jaws

	Static	Dynamic
Max. tensile load T	13345 N	1334 N
Max. compressive load C	26689 N	1334 N
Max. moment M_x	565 Nm	56 Nm
Max. moment M_y	565 Nm	56 Nm
Max. moment M_z	565 Nm	56 Nm

Load data



Ordering specifications (basic model can be combined with options)

Basic model	with FKM seals
RP-19M	V

Accessories (please order separately)

Sensors	Order no.	Quantity/unit
Holder for 2 sensors	OSMK-072	1
Inductive sensor NPN with quick disconnection	OISP-011-C	1 or 2
Cable with quick disconnection (2 m)	CABL-010	1 or 2

Pneumatic accessories	Order no.	Quantity/unit
Safety valve 1/4 NPT	OFSV-006	1
Set of seals, standard	SLKT-044	1
Set of seals, FKM	SLKT-044V	1

Technical specification

Total gripping force F at 6 bar	N	2290
Total stroke	mm	50.8
Recomm. workpiece weight	kg	11.45
Weight	kg	9.5
Operating pressure min./max.	bar	3-7
Cylinder diameter	mm	88.9
Air consumption/cycle	cm ³	157.3

