

| Designation | Total stroke in degrees | max. reachable gripping force in N | Recommended workpiece weight in kg | Page |
|-------------|-------------------------|------------------------------------|------------------------------------|------|
| DCT-12M-RE | 183.2 | 0.9 | 0.005 | 5248 |
| DCT-16M-RE | 183.2 | 1.9 | 0.01 | 5250 |
| DCT-20M-RE | 183.1 | 3.8 | 0.02 | 5252 |
| DCT-25M-RE | 183.2 | 7.1 | 0.04 | 5254 |
| CT-32M-RE | 183 | 14.1 | 0.07 | 5256 |
| CT-40M-RE | 183.2 | 26.4 | 0.13 | 5258 |
| CT-50M-RE | 183.1 | 48.0 | 0.24 | 5260 |

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



Technical specification:

Pneumatics

| | |
|---|-----------------------------|
| Operating pressure range | 4 - 7 bar |
| Double-acting cylinder type with spring support or single-acting with spring return | |
| Dynamic seals | internal lubrication, NBR-N |
| Actuation valve | 4/2-way |
| Single-acting | 3/2-way valve |

Air quality

| | |
|--------------------|----------------|
| Air filter | 40 μ or better |
| Air lubrication | not necessary* |
| Low humidity (dry) | |

Operating temperature range

| | |
|---------------------|------------------|
| 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 extends the service life considerably.

2-jaw angular grippers CTRE with spring support 180° Series

Technical features

Grippers fastening

The grippers can be fastened from the side or from below

Quality components

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

Mounting kit for inductive sensors

Accessories (SD) for measuring the jaw position, includes 2 holders for tube-like sensors and 2 adjustable flags

Mounting kit for magnetic field sensors

The standard grippers is equipped with insertions for two magnetic field sensors (for measuring the jaw position)

Adjustable stop

Accessories (BR) for setting the jaw opening angle between 0° and 180°

Encapsulation and cover

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

FKM seals

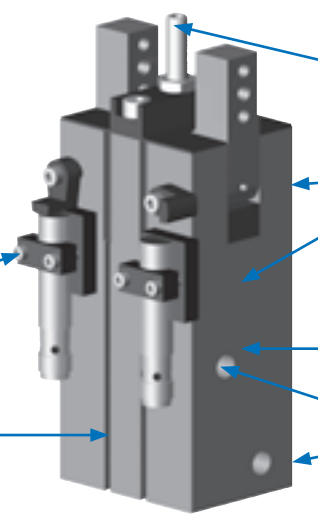
Optional for high-temperature applications

Fail-safe thanks to spring

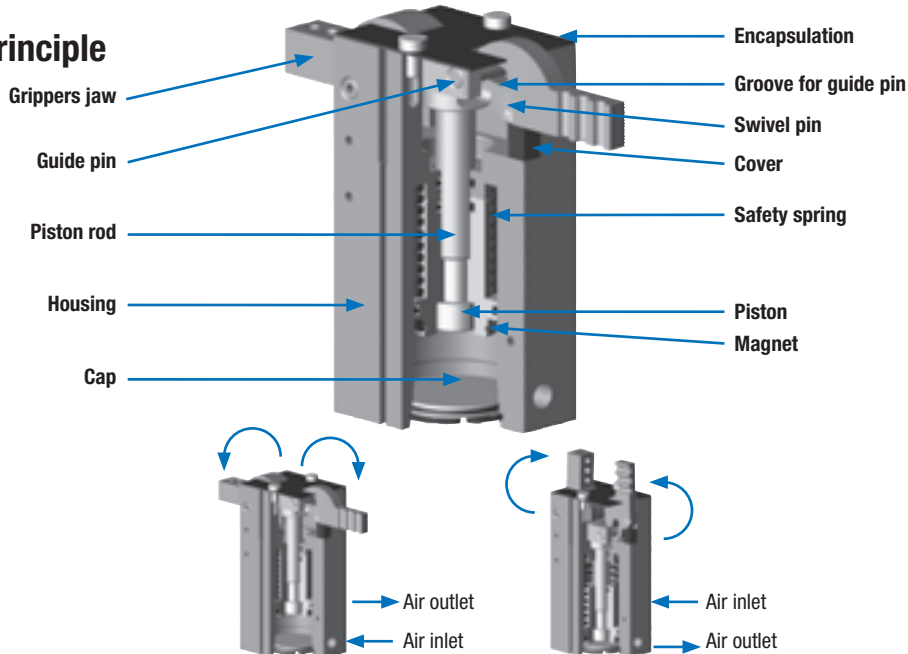
The force of the inner spring maintains the gripping force even if the pressure fails.

Several air ports

Distributor air ports on the side or on the top (an O-ring is required for the top ports)



Functional principle

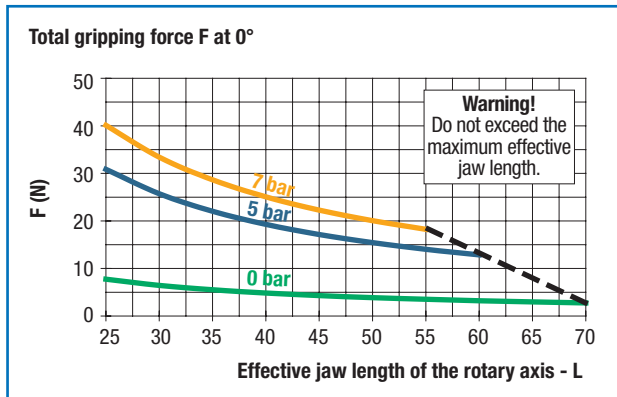


- A double-acting piston with a ring magnet for magnetic field detection is connected to a piston rod whose fork-shaped end is fastened to two guiding pins.
- The rotation of the jaws is synchronized with the guiding pin/jaw module
- When the guiding pins slide in their slot, they convert the vertical movement of the piston into an opposite, synchronous rotary movement of the two jaws
- Between the opened 90° position and the 0° grippers position, each jaw has an effective rotary stroke angle of 90°, plus an overstroke for gripping before reaching the final grippers position of approx. 1.5°. The jaws must be designed for a gripping position of 0° (parallel jaws).
- The safety spring ensures that the grippers keeps holding a part also if there is a failure in the air supply. It also allows you to use the grippers in the single-acting mode

Technical specification

| | | |
|------------------------------|-----------------|-------------|
| Operating pressure min./max. | bar | 4-7 |
| Closing/opening time | s | 0.13 / 0.13 |
| Air consumption/cycle | cm ³ | 1.92 |
| Cylinder diameter | mm | 12 |

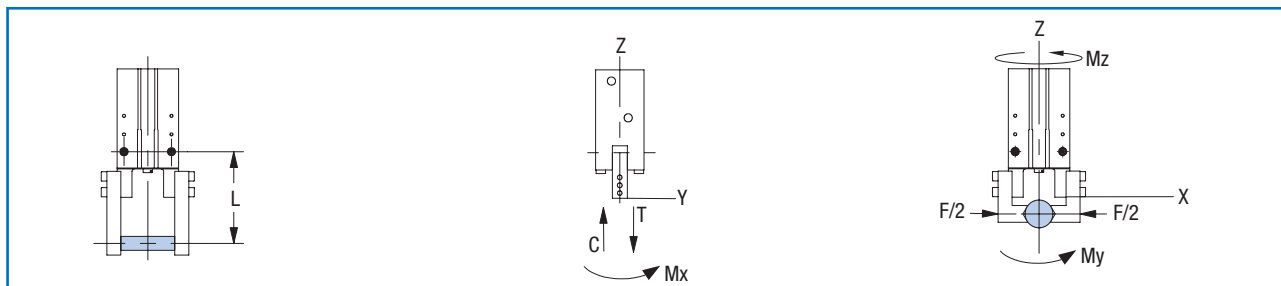
Gripping force diagram



Maximum load on grippers and jaws

| | Static | Dynamic |
|----------------------------------|--------|---------|
| Max. tensile load T | 47 N | 9.4 N |
| Max. compressive load C | 47 N | 9.4 N |
| Max. moment M_x | 1.1 Nm | 0.3 Nm |
| Max. moment M_y | - Nm | - Nm |
| Max. moment M_z | 1.1 Nm | 0.3 Nm |

Load data

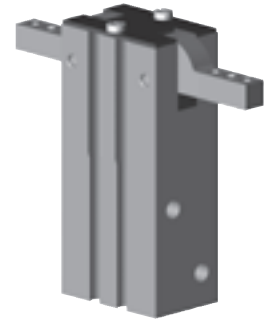


Ordering specifications (basic model can be combined with options)

| | | | |
|-------------|---------------|--------------------|-----------------|
| Basic model | Size | with sensor holder | adjustable stop |
| DCT | 12M-RE | SD | BR |

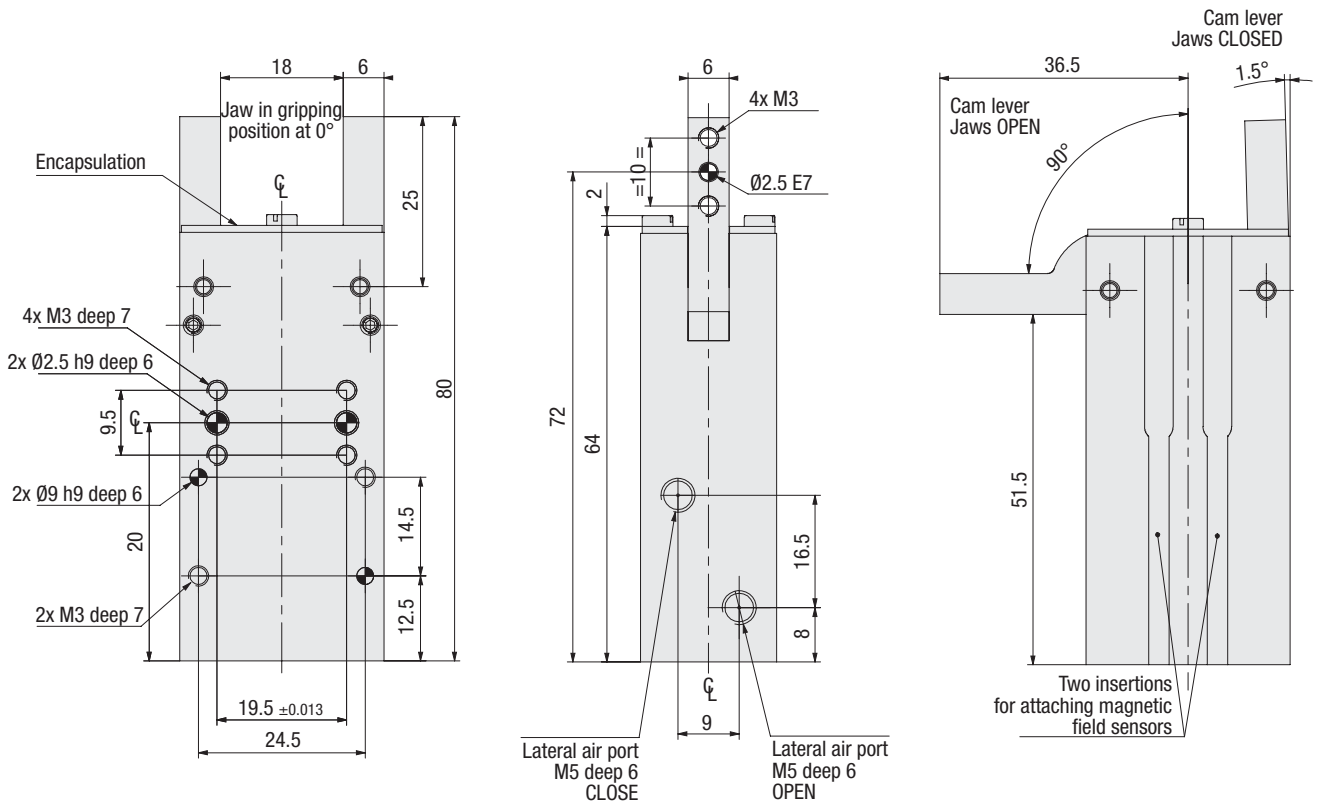
Accessories (please order separately)

| Sensors | Order no. | Quantity/unit |
|--|-----------|---------------|
| Magnetic field sensor (PNP) (long housing) with quick disconnect | OHSP-006 | 1 or 2 |
| Inductive sensor (PNP), M8 with quick disconnection | OHSP-008 | 1 to 3 |
| Cable with quick disconnection (2 m) | CABL-010 | 1 to 3 |
| Pneumatic accessories | | |
| Set of seals, FKM | SLKT-159V | 1 |
| Repair kit | KSCT12RE | 1 |
| Mounting accessories | | |
| Stop limit (1 encapsulation + 1 stop) | BRCT12 | 1 |

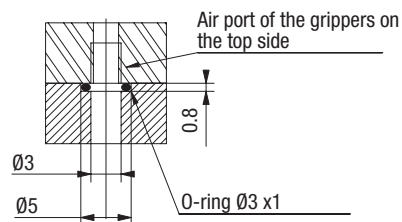
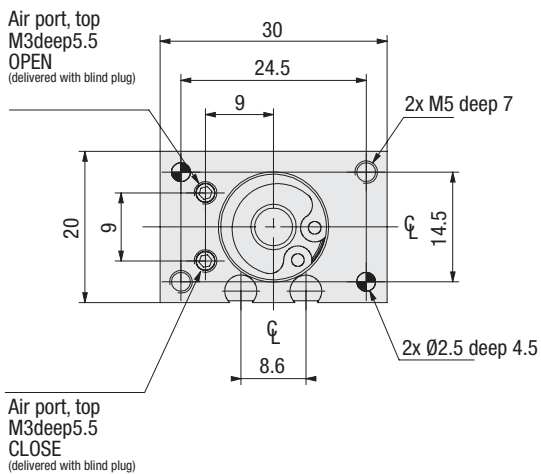


Technical specification

| | | |
|-------------------------------|---------|-------|
| Total gripping force at 6 bar | N | 0.9 |
| Total gripping force at 0 bar | N | 0.19 |
| Total stroke | degrees | 183.2 |
| Recomm. workpiece weight | kg | 0.005 |
| Weight | kg | 0.12 |
| Repeatability | mm | ±0.05 |



View A-A

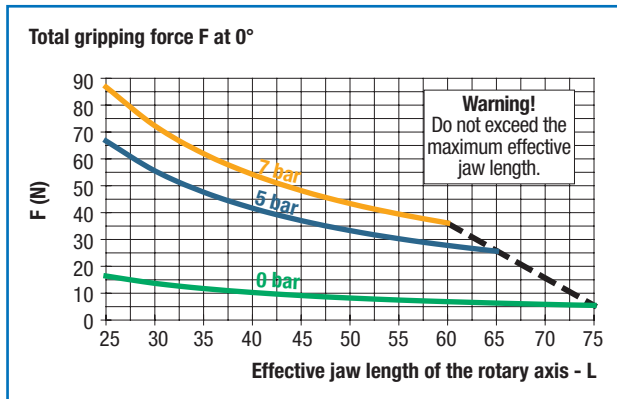


Our standard grippers are delivered with open supply ports on the top side. Seal the distributor air port as shown when using the supply ports on the top side.

Technical specification

| | | |
|------------------------------|-----------------|-------------|
| Operating pressure min./max. | bar | 4-7 |
| Closing/opening time | s | 0.16 / 0.16 |
| Air consumption/cycle | cm ³ | 4.12 |
| Cylinder diameter | mm | 16 |

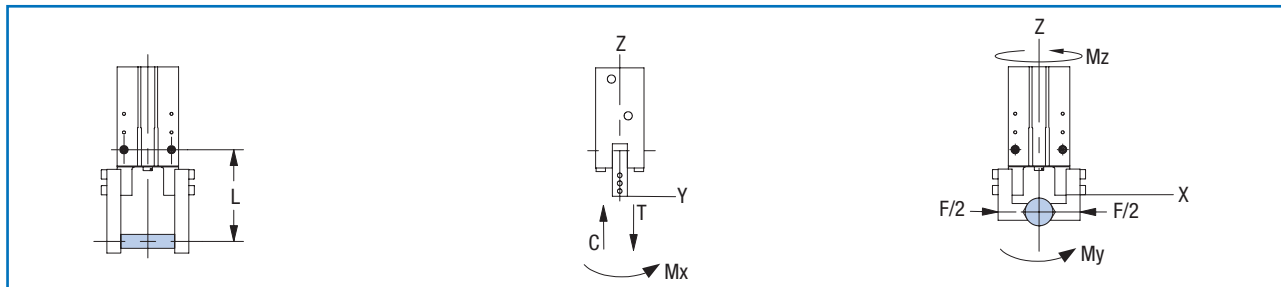
Gripping force diagram



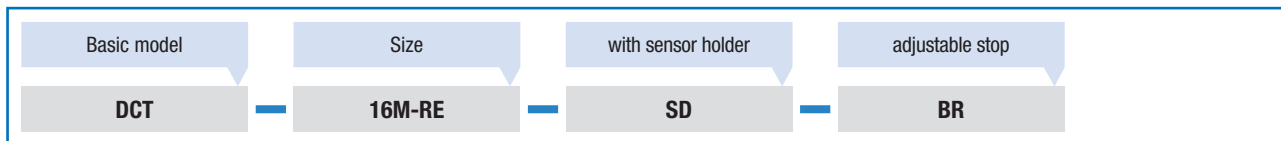
Maximum load on grippers and jaws

| | Static | Dynamic |
|----------------------------------|--------|---------|
| Max. tensile load T | 90 N | 18 N |
| Max. compressive load C | 90 N | 18 N |
| Max. moment M_x | 2.9 Nm | 0.7 Nm |
| Max. moment M_y | - Nm | - Nm |
| Max. moment M_z | 2.9 Nm | 0.7 Nm |

Load data

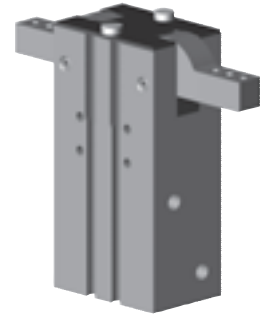


Ordering specifications (basic model can be combined with options)



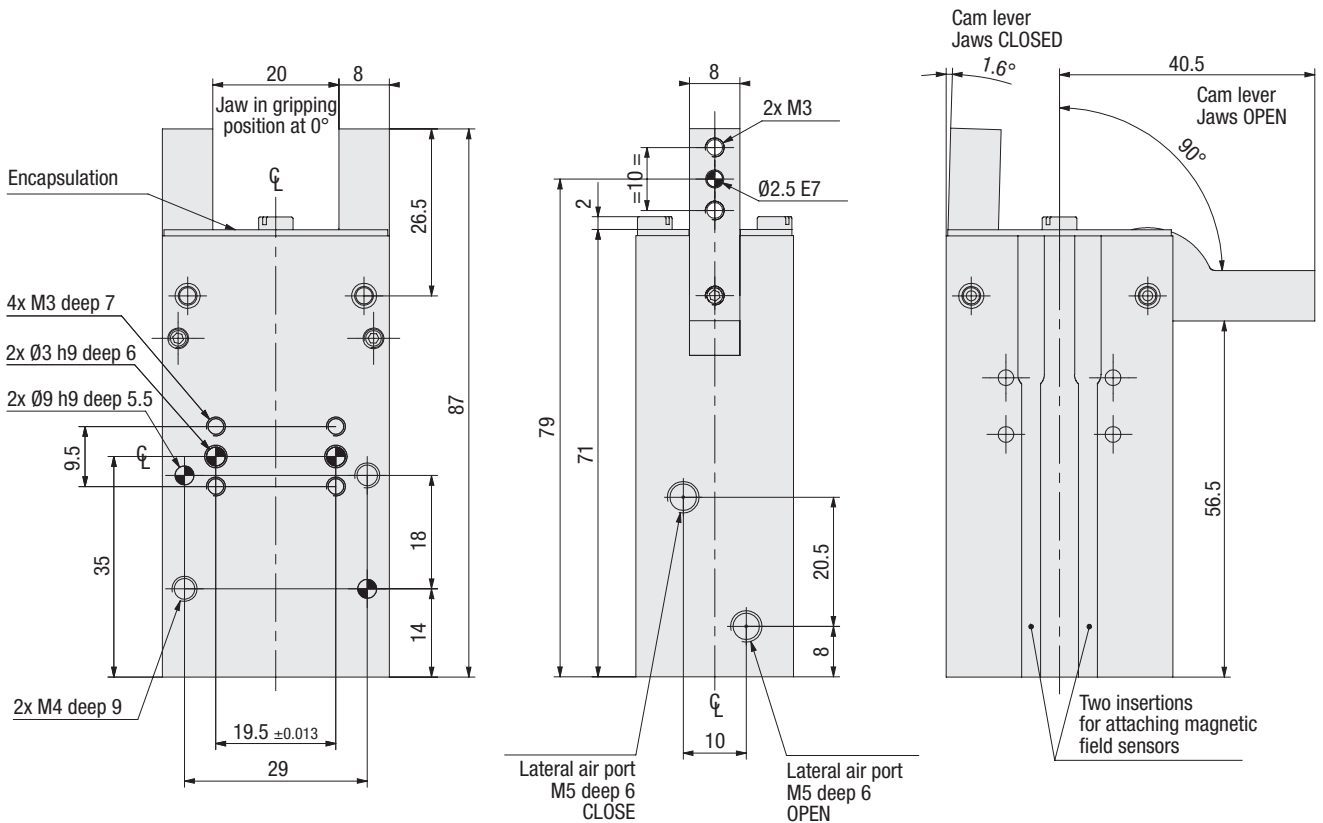
Accessories (please order separately)

| Accessories | Order no. | Quantity/unit |
|---|-----------|---------------|
| Sensors | | |
| Magnetic field sensor (PNP) (long housing) with quick disconnect | OHSP-006 | 1 or 2 |
| Magnetic field sensor (NPN) (short housing) with quick disconnect | OHSP-008 | 1 or 2 |
| Holder for 2 inductive sensors | SDCT16-20 | 1 |
| Inductive sensor (PNP) 4 mm with quick disconnect OISP-014-C | | 1 or 2 |
| Cable with quick disconnection (2 m) | CABL-010 | 1 or 2 |
| Pneumatic accessories | | |
| Set of seals, FKM | SLKT-160V | 1 |
| Repair kit | KSCT16RE | 1 |
| Mounting accessories | | |
| Stop limit (1 encapsulation + 1 stop) | BRCT16 | 1 |

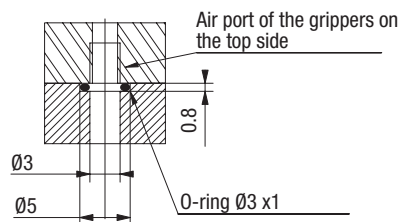
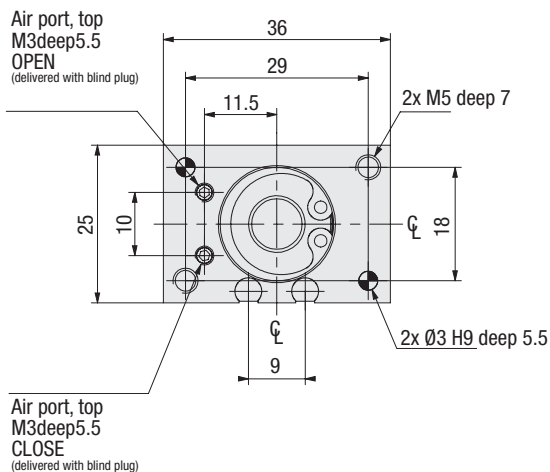


Technical specification

| | | |
|-------------------------------|---------|-------|
| Total gripping force at 6 bar | N | 1.9 |
| Total gripping force at 0 bar | N | 0.40 |
| Total stroke | degrees | 183.2 |
| Recomm. workpiece weight | kg | 0.01 |
| Weight | kg | 0.20 |
| Repeatability | mm | ±0.05 |



View A-A

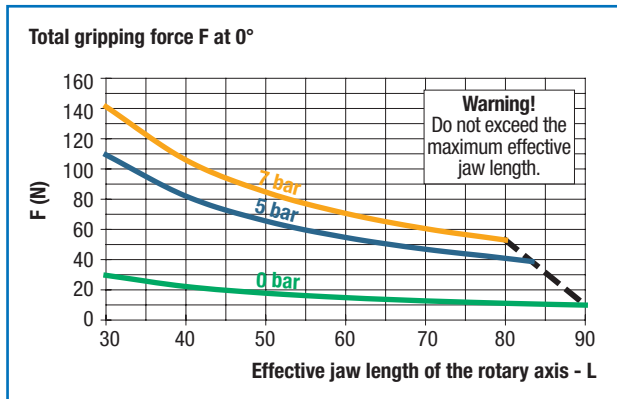


Our standard grippers are delivered with open supply ports on the top side. Seal the distributor air port as shown when using the supply ports on the top side.

Technical specification

| | | |
|------------------------------|-----------------|-------------|
| Operating pressure min./max. | bar | 4-7 |
| Closing/opening time | s | 0.21 / 0.21 |
| Air consumption/cycle | cm ³ | 7.92 |
| Cylinder diameter | mm | 20 |

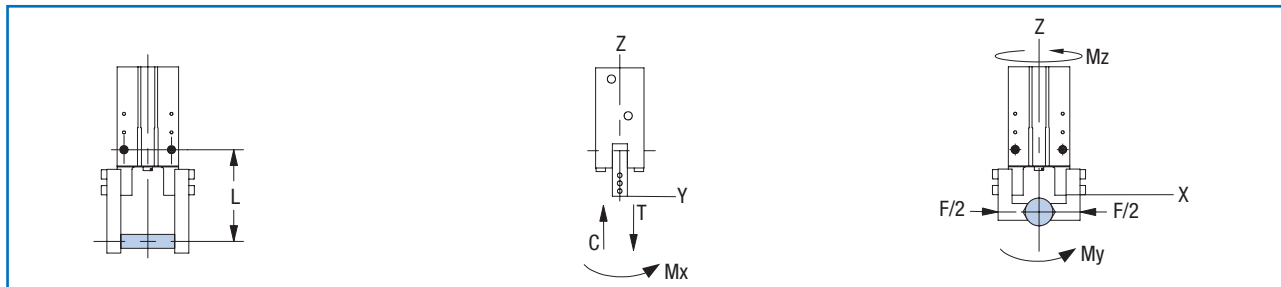
Gripping force diagram



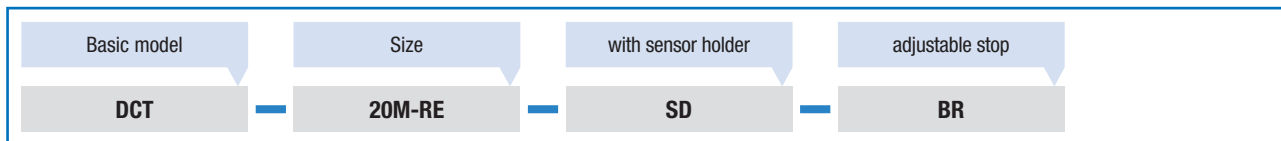
Maximum load on grippers and jaws

| | Static | Dynamic |
|----------------------------------|--------|---------|
| Max. tensile load T | 90 N | 18 N |
| Max. compressive load C | 90 N | 18 N |
| Max. moment M_x | 2.9 Nm | 0.7 Nm |
| Max. moment M_y | - Nm | - Nm |
| Max. moment M_z | 2.9 Nm | 0.7 Nm |

Load data



Ordering specifications (basic model can be combined with options)



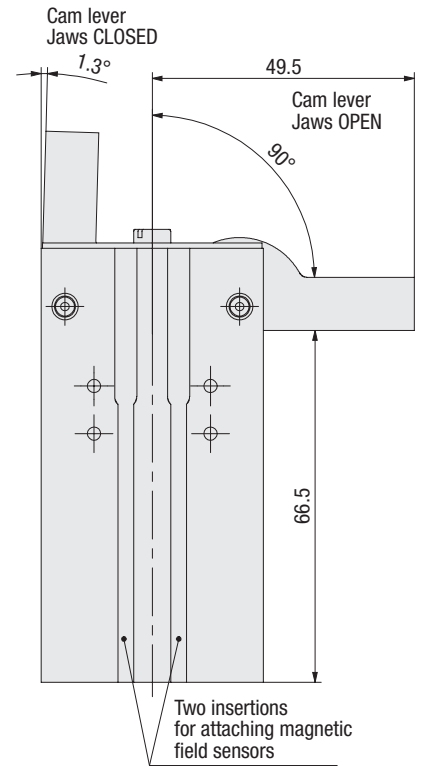
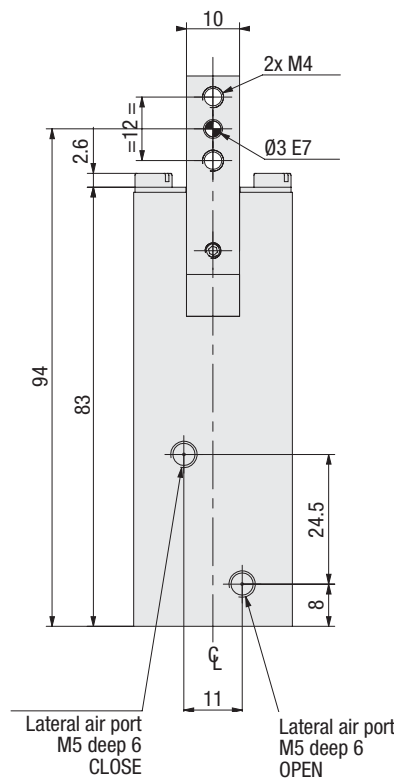
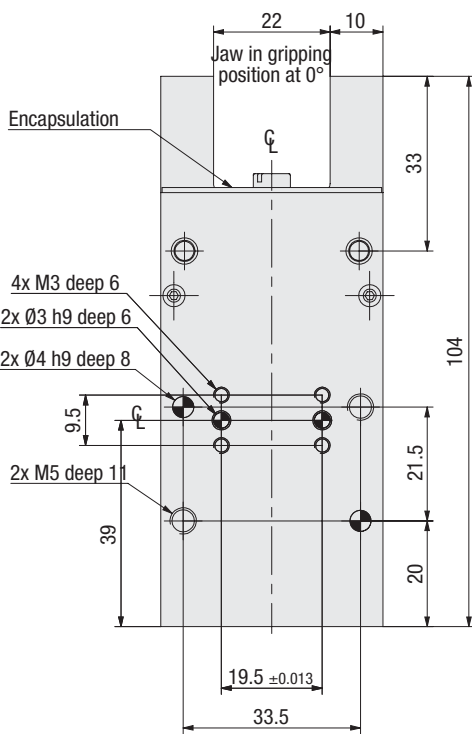
Accessories (please order separately)

| Accessories | Order no. | Quantity/unit |
|---|-----------|---------------|
| Sensors | | |
| Magnetic field sensor (PNP) (long housing) with quick disconnect | OHSP-006 | 1 or 2 |
| Magnetic field sensor (NPN) (short housing) with quick disconnect | OHSP-008 | 1 or 2 |
| Holder for 2 inductive sensors | SDCT16-20 | 1 |
| Inductive sensor (PNP) 4 mm with quick disconnect OISP-014-C | | 1 or 2 |
| Cable with quick disconnection (2 m) | CABL-010 | 1 or 2 |
| Pneumatic accessories | | |
| Set of seals, FKM | SLKT-161V | 1 |
| Repair kit | KSCT20RE | 1 |
| Mounting accessories | | |
| Stop limit (1 encapsulation + 1 stop) | BRCT20 | 1 |

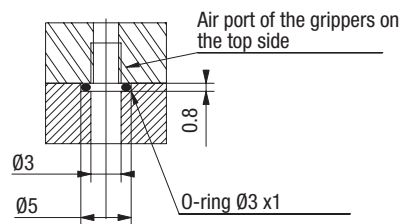
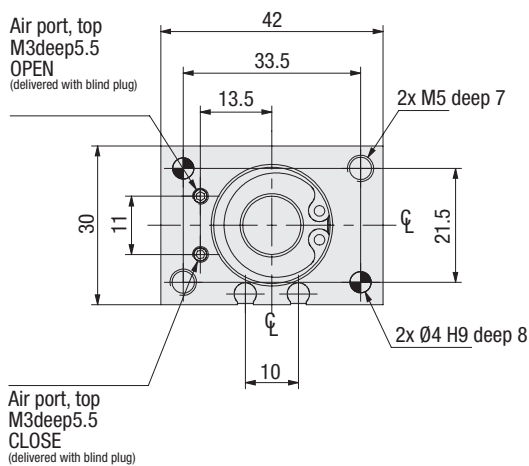


Technical specification

| | | |
|-------------------------------|---------|-------|
| Total gripping force at 6 bar | N | 3.8 |
| Total gripping force at 0 bar | N | 0.89 |
| Total stroke | degrees | 183.1 |
| Recomm. workpiece weight | kg | 0.02 |
| Weight | kg | 0.33 |
| Repeatability | mm | ±0.05 |



View A-A

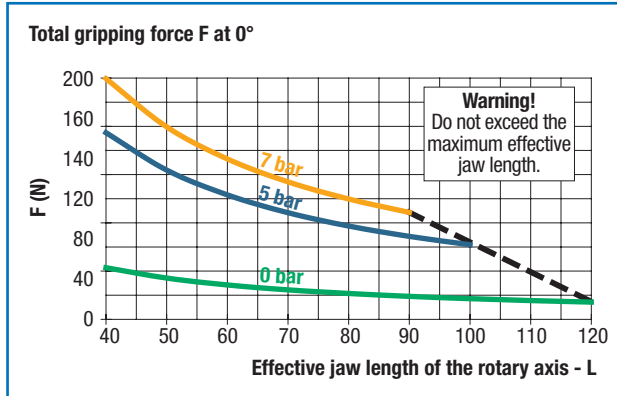


Our standard grippers are delivered with open supply ports on the top side. Seal the distributor air port as shown when using the supply ports on the top side.

Technical specification

| | | |
|------------------------------|-----------------|-------------|
| Operating pressure min./max. | bar | 4-7 |
| Closing/opening time | s | 0.28 / 0.28 |
| Air consumption/cycle | cm ³ | 14.9 |
| Cylinder diameter | mm | 25 |

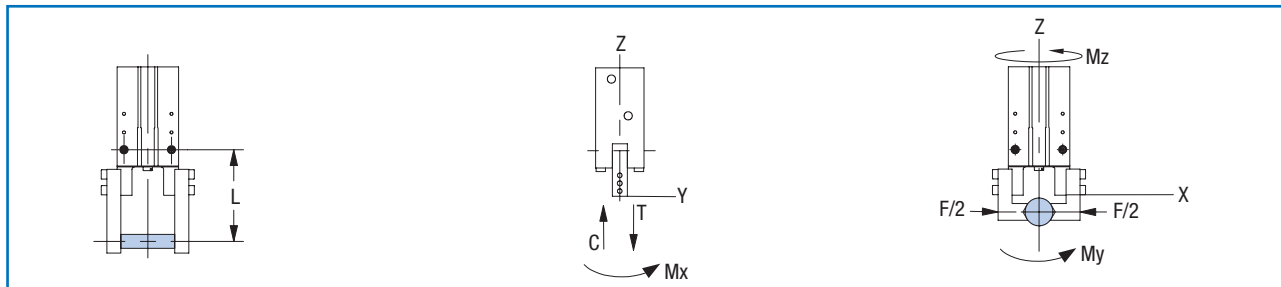
Gripping force diagram



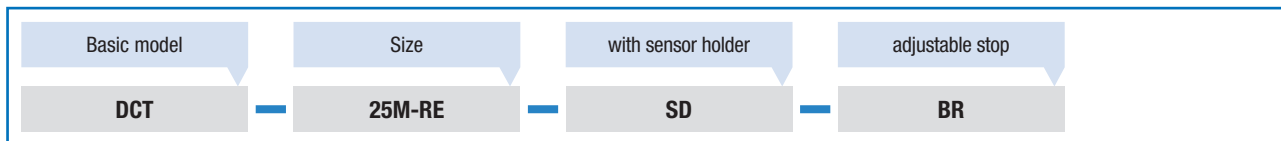
Maximum load on grippers and jaws

| | Static | Dynamic |
|----------------------------------|--------|---------|
| Max. tensile load T | 205 N | 41 N |
| Max. compressive load C | 205 N | 41 N |
| Max. moment M_x | 10 Nm | 2.5 Nm |
| Max. moment M_y | - Nm | - Nm |
| Max. moment M_z | 10 Nm | 2.5 Nm |

Load data

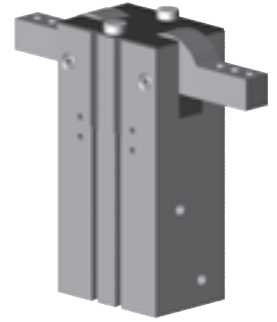


Ordering specifications (basic model can be combined with options)



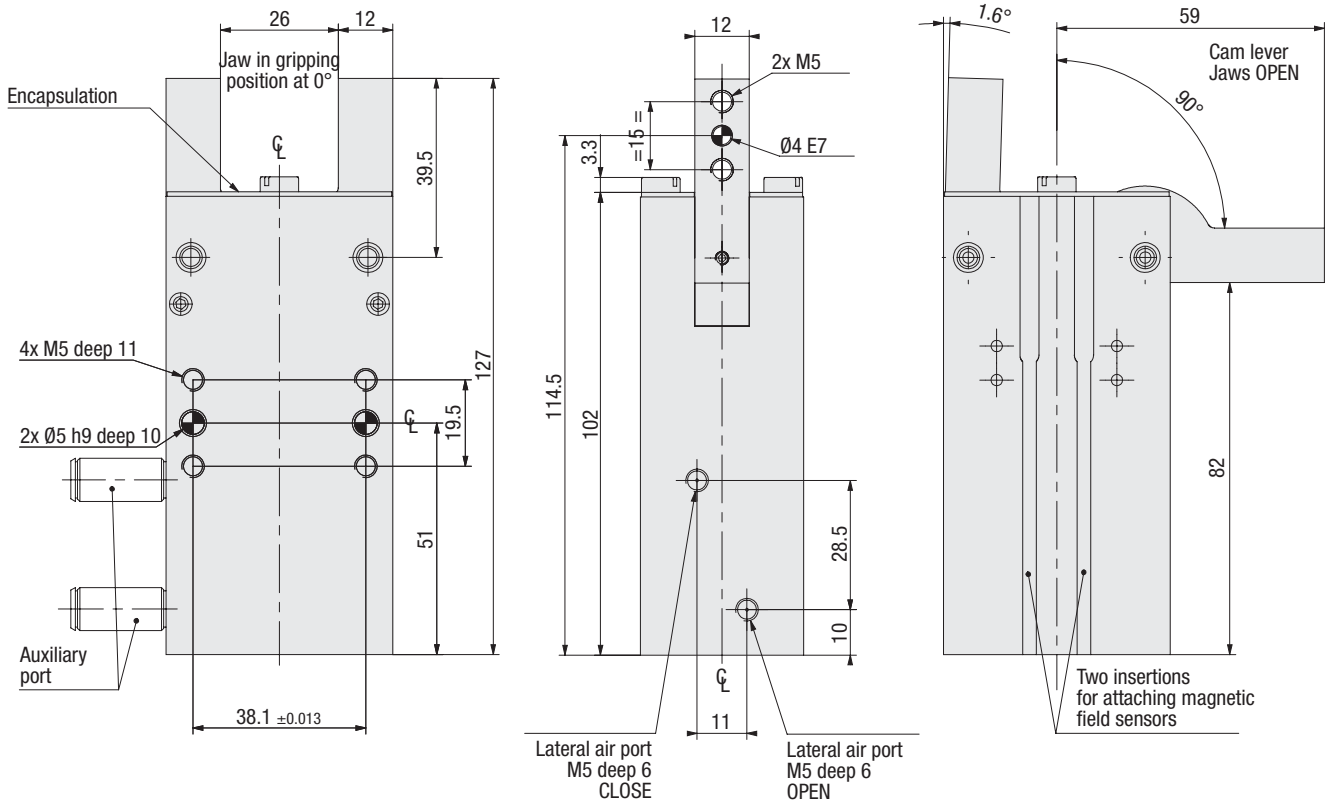
Accessories (please order separately)

| Sensors | Order no. | Quantity/unit |
|---|-----------|---------------|
| Magnetic field sensor (PNP) (long housing) with quick disconnect | OHSP-006 | 1 or 2 |
| Magnetic field sensor (NPN) (short housing) with quick disconnect | OHSP-008 | 1 or 2 |
| Holder for 2 inductive sensors | SDCT25-32 | 1 |
| Inductive sensor (PNP) 4 mm with quick disconnect OISP-011-C | | 1 or 2 |
| Cable with quick disconnection (2 m) | CABL-010 | 1 or 2 |
| Pneumatic accessories | | |
| Set of seals, FKM | SLKT-162V | 1 |
| Repair kit | KSCT25RE | 1 |
| Mounting accessories | | |
| Stop limit (1 encapsulation + 1 stop) | BRCT25 | 1 |

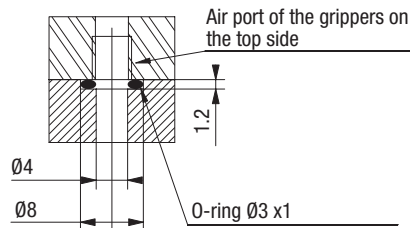
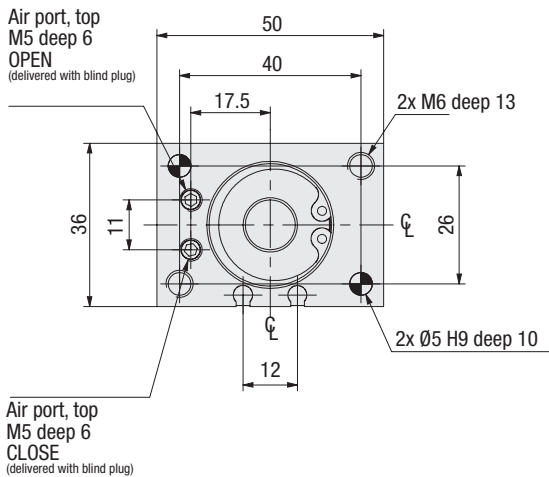


Technical specification

| | | |
|-------------------------------|---------|-------|
| Total gripping force at 6 bar | N | 7.1 |
| Total gripping force at 0 bar | N | 1.70 |
| Total stroke | degrees | 183.2 |
| Recomm. workpiece weight | kg | 0.04 |
| Weight | kg | 0.57 |
| Repeatability | mm | ±0.05 |



View A-A

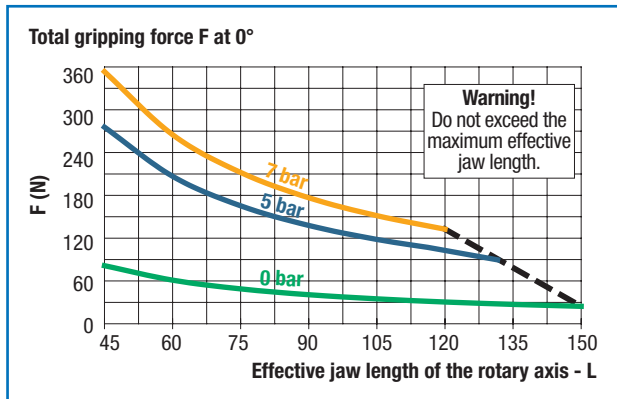


Our standard grippers are delivered with open supply ports on the top side. Seal the distributor air port as shown when using the supply ports on the top side.

Technical specification

| | | |
|------------------------------|-----------------|-------------|
| Operating pressure min./max. | bar | 4-7 |
| Closing/opening time | s | 0.29 / 0.29 |
| Air consumption/cycle | cm ³ | 28.6 |
| Cylinder diameter | mm | 32 |

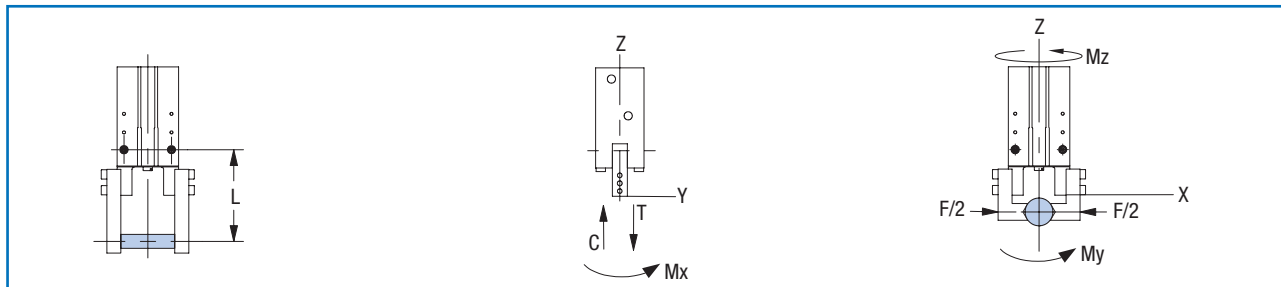
Gripping force diagram



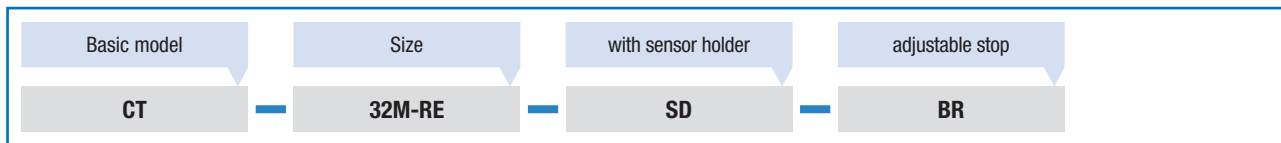
Maximum load on grippers and jaws

| | Static | Dynamic |
|----------------------------------|--------|---------|
| Max. tensile load T | 288 N | 57.6 N |
| Max. compressive load C | 288 N | 57.6 N |
| Max. moment M_x | 16 Nm | 4 Nm |
| Max. moment M_y | - Nm | - Nm |
| Max. moment M_z | 16 Nm | 4 Nm |

Load data

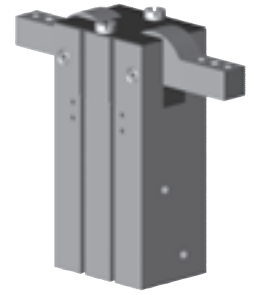


Ordering specifications (basic model can be combined with options)



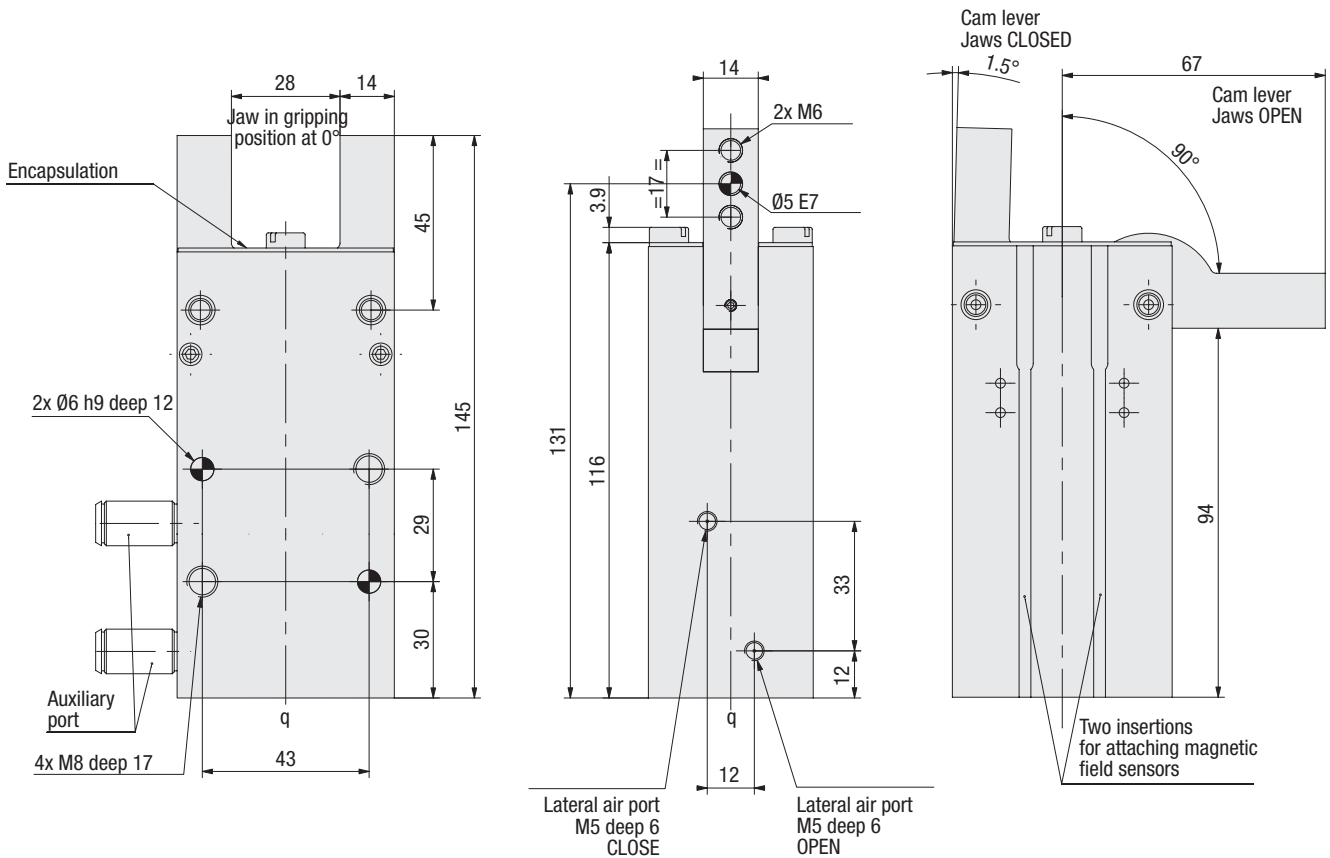
Accessories (please order separately)

| Accessories | Order no. | Quantity/unit |
|---|-----------|---------------|
| Sensors | | |
| Magnetic field sensor (PNP) (long housing) with quick disconnect | OHSP-006 | 1 or 2 |
| Magnetic field sensor (NPN) (short housing) with quick disconnect | OHSP-008 | 1 or 2 |
| Holder for 2 inductive sensors | SDCT25-32 | 1 |
| Inductive sensor (PNP) 4 mm with quick disconnect OISP-011-C | | 1 or 2 |
| Cable with quick disconnection (2 m) | CABL-010 | 1 or 2 |
| Pneumatic accessories | | |
| Set of seals, FKM | SLKT-163V | 1 |
| Repair kit | KSCT32RE | 1 |
| Mounting accessories | | |
| Stop limit (1 encapsulation + 1 stop) | BRCT32 | 1 |

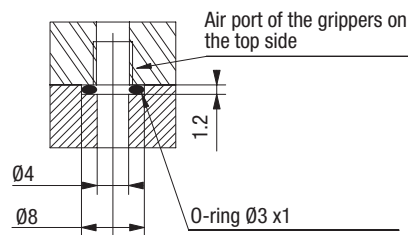
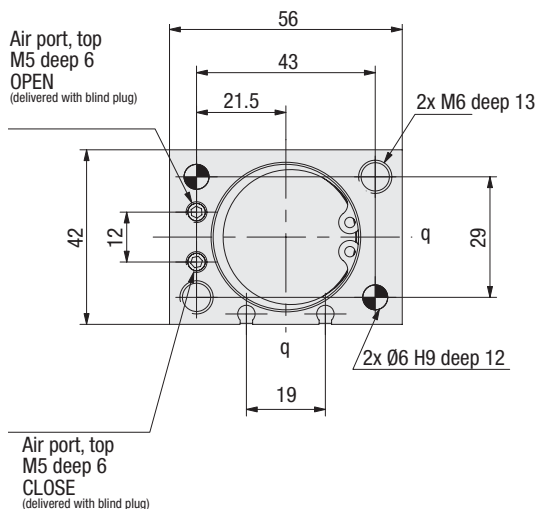


Technical specification

| | | |
|-------------------------------|---------|-------|
| Total gripping force at 6 bar | N | 14.1 |
| Total gripping force at 0 bar | N | 3.60 |
| Total stroke | degrees | 183 |
| Recomm. workpiece weight | kg | 0.07 |
| Weight | kg | 0.83 |
| Repeatability | mm | ±0.05 |



View A-A

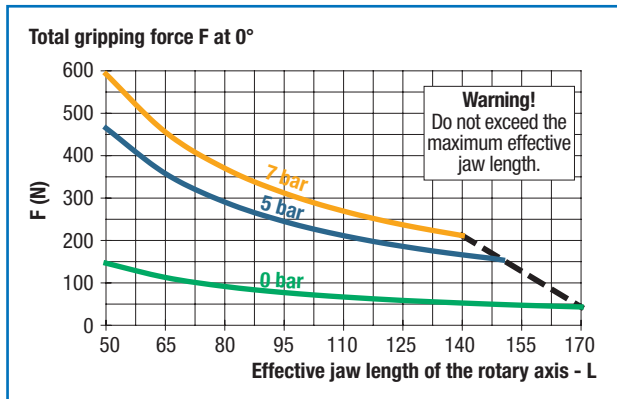


Our standard grippers are delivered with open supply ports on the top side. Seal the distributor air port as shown when using the supply ports on the top side.

Technical specification

| | | |
|------------------------------|-----------------|-------------|
| Operating pressure min./max. | bar | 4-7 |
| Closing/opening time | s | 0.33 / 0.33 |
| Air consumption/cycle | cm ³ | 52 |
| Cylinder diameter | mm | 40 |

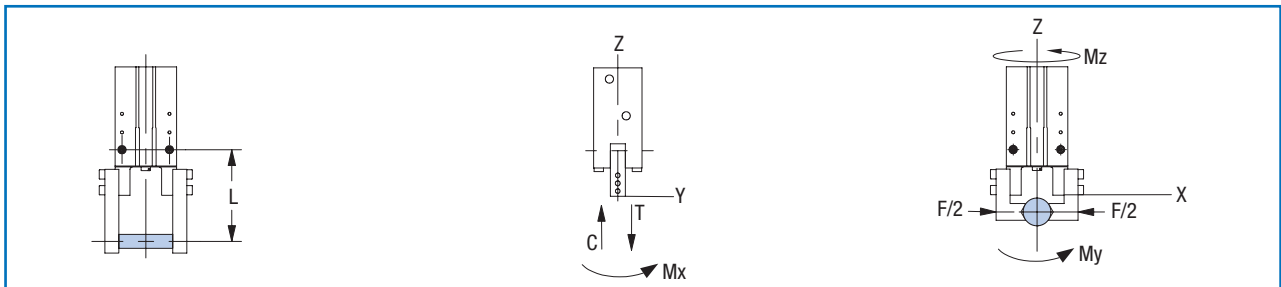
Gripping force diagram



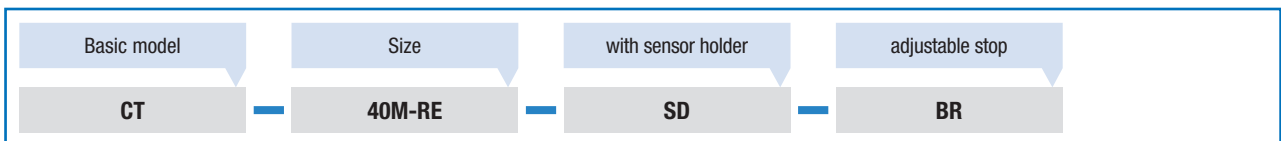
Maximum load on grippers and jaws

| | Static | Dynamic |
|----------------------------------|--------|---------|
| Max. tensile load T | 420 N | 84 N |
| Max. compressive load C | 420 N | 84 N |
| Max. moment M_x | 22 Nm | 5.5 Nm |
| Max. moment M_y | - Nm | - Nm |
| Max. moment M_z | 22 Nm | 5.5 Nm |

Load data

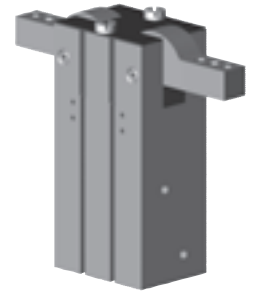


Ordering specifications (basic model can be combined with options)



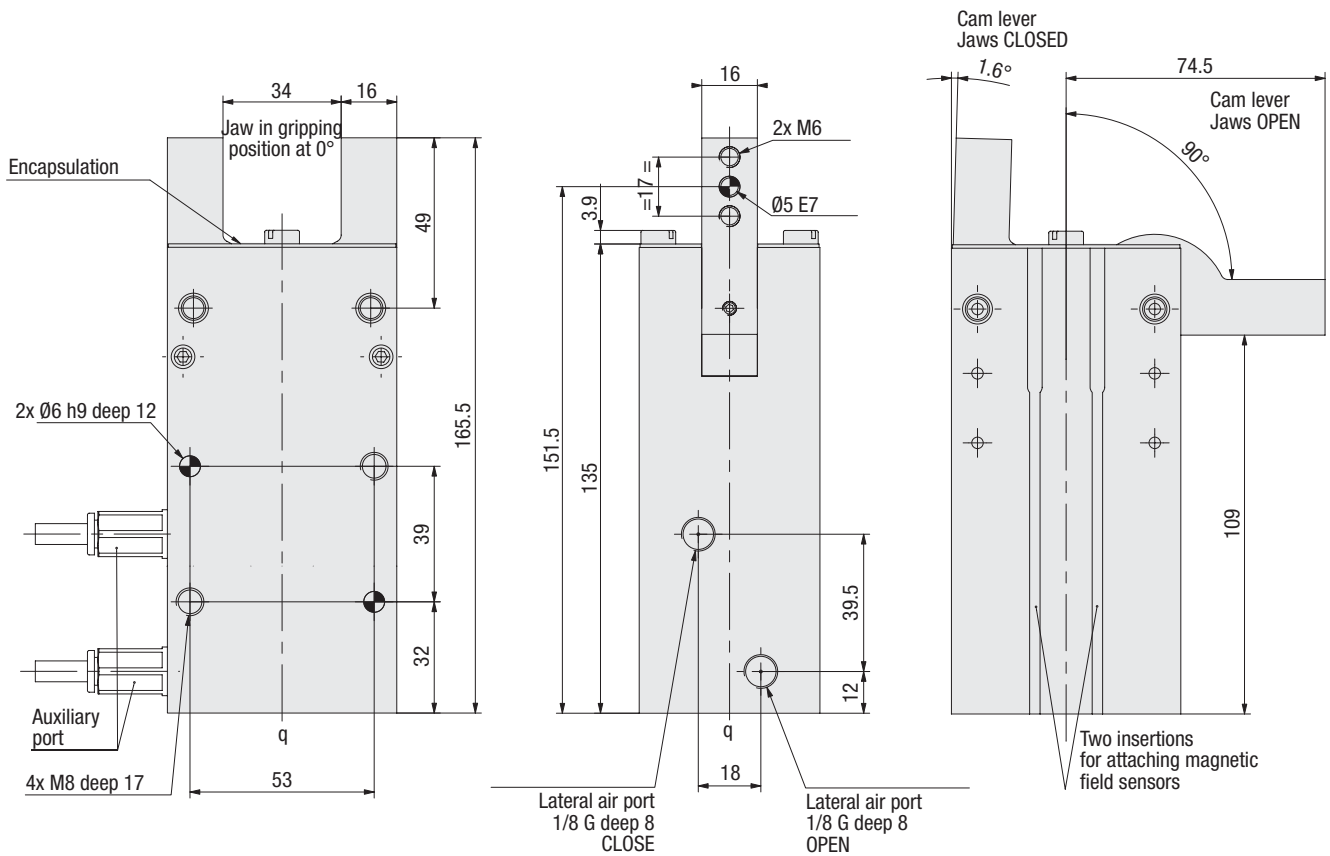
Accessories (please order separately)

| Accessories | Order no. | Quantity/unit |
|---|-----------|---------------|
| Sensors | | |
| Magnetic field sensor (PNP) (long housing) with quick disconnect | OHSP-006 | 1 or 2 |
| Magnetic field sensor (NPN) (short housing) with quick disconnect | OHSP-008 | 1 or 2 |
| Holder for 2 inductive sensors | SDCT40-50 | 1 |
| Inductive sensor (PNP) 4 mm with quick disconnect OISP-017-C | | 1 or 2 |
| Cable with quick disconnection (2 m) | CABL-010 | 1 or 2 |
| Cable with quick disconnection | CABL-014 | 1 or 2 |
| Pneumatic accessories | | |
| Set of seals, FKM | SLKT-164V | 1 |
| Repair kit | KSCT40RE | 1 |
| Mounting accessories | | |
| Stop limit (1 encapsulation + 1 stop) | BRCT40 | 1 |

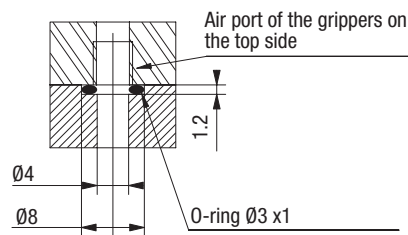
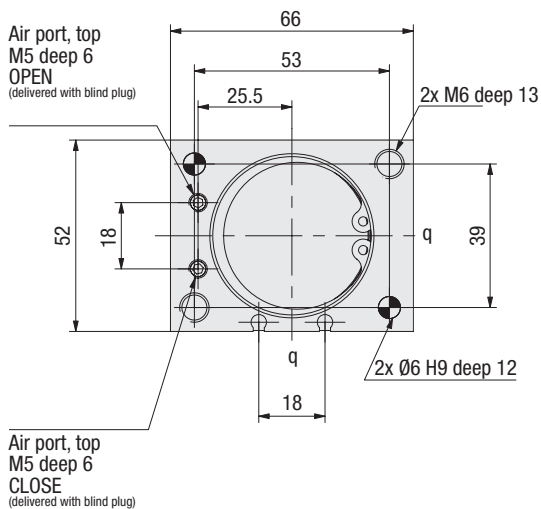


Technical specification

| | | |
|-------------------------------|---------|-------|
| Total gripping force at 6 bar | N | 26.4 |
| Total gripping force at 0 bar | N | 7.3 |
| Total stroke | degrees | 183.2 |
| Recomm. workpiece weight | kg | 0.13 |
| Weight | kg | 1.39 |
| Repeatability | mm | ±0.05 |



View A-A

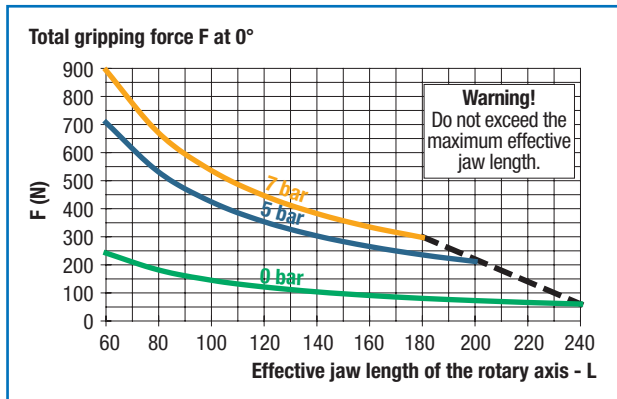


Our standard grippers are delivered with open supply ports on the top side. Seal the distributor air port as shown when using the supply ports on the top side.

Technical specification

| | | |
|------------------------------|-----------------|-------------|
| Operating pressure min./max. | bar | 4-7 |
| Closing/opening time | s | 0.42 / 0.42 |
| Air consumption/cycle | cm ³ | 92 |
| Cylinder diameter | mm | 50 |

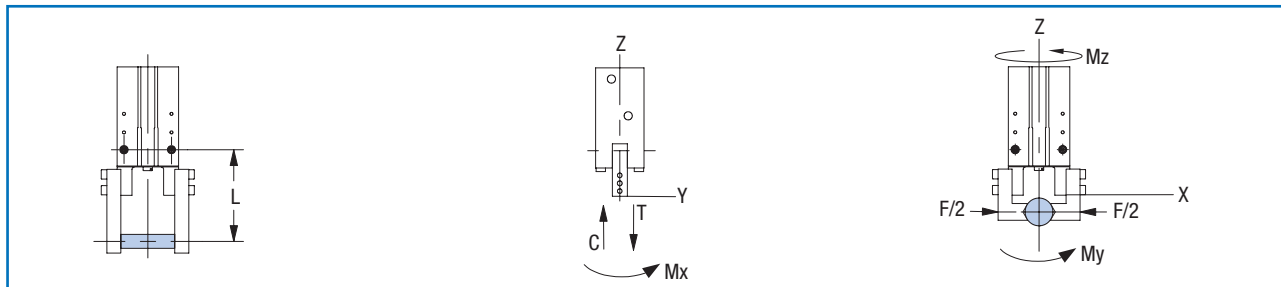
Gripping force diagram



Maximum load on grippers and jaws

| | Static | Dynamic |
|----------------------------------|--------|---------|
| Max. tensile load T | 490 N | 98 N |
| Max. compressive load C | 490 N | 98 N |
| Max. moment M_x | 30 Nm | 7.5 Nm |
| Max. moment M_y | - Nm | - Nm |
| Max. moment M_z | 30 Nm | 7.5 Nm |

Load data

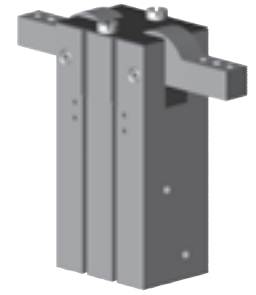


Ordering specifications (basic model can be combined with options)

| | | | |
|-------------|---------------|--------------------|-----------------|
| Basic model | Size | with sensor holder | adjustable stop |
| CT | 50M-RE | SD | BR |

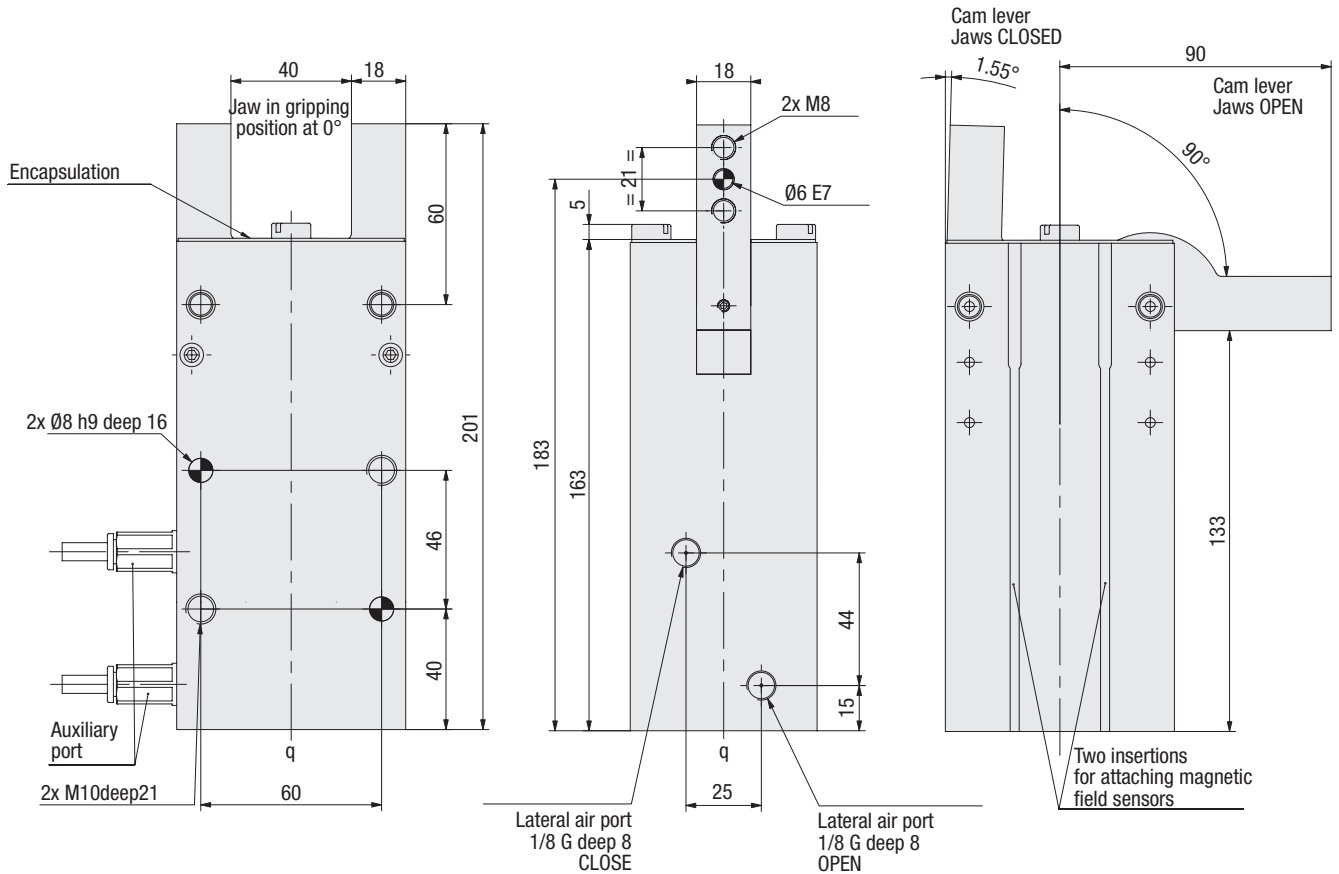
Accessories (please order separately)

| Sensors | Order no. | Quantity/unit |
|---|-----------|---------------|
| Magnetic field sensor (PNP) (long housing) with quick disconnect | OHSP-006 | 1 or 2 |
| Magnetic field sensor (NPN) (short housing) with quick disconnect | OHSP-008 | 1 or 2 |
| Holder for 2 inductive sensors | SDCT40-50 | 1 |
| Inductive sensor (PNP) 4 mm with quick disconnect OISP-017-C | 1 or 2 | |
| Cable with quick disconnection (2 m) | CABL-010 | 1 or 2 |
| Cable with quick disconnection | CABL-014 | 1 or 2 |
| Pneumatic accessories | | |
| Set of seals, FKM | SLKT-165V | 1 |
| Repair kit | KSCT50RE | 1 |
| Mounting accessories | | |
| Stop limit (1 encapsulation + 1 stop) | BRCT50 | 1 |

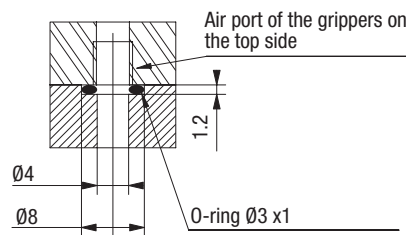
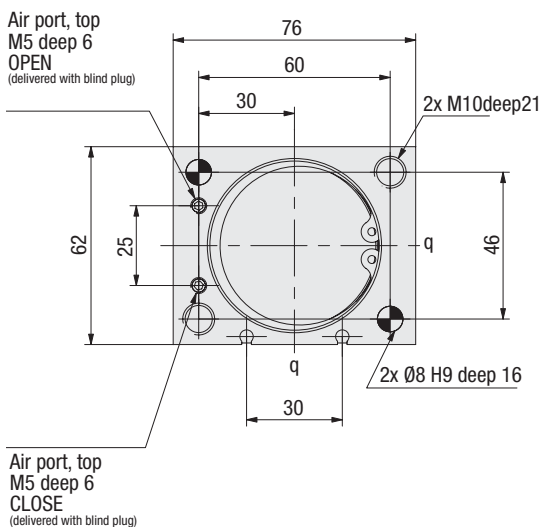


Technical specification

| | | |
|-------------------------------|---------|-------|
| Total gripping force at 6 bar | N | 48.0 |
| Total gripping force at 0 bar | N | 14.5 |
| Total stroke | degrees | 183.1 |
| Recomm. workpiece weight | kg | 0.24 |
| Weight | kg | 2.21 |
| Repeatability | mm | ±0.05 |



View A-A



Our standard grippers are delivered with open supply ports on the top side. Seal the distributor air port as shown when using the supply ports on the top side.