

# Parallel Gripper- CP Square Jaw Series

## Compact and Powerful

This gripper is designed for use in confined spaces, combining long strokes with a high grip force. Optional safety springs retain the components, should the air supply fail or to increase grip force.

## Multipurpose Gripper

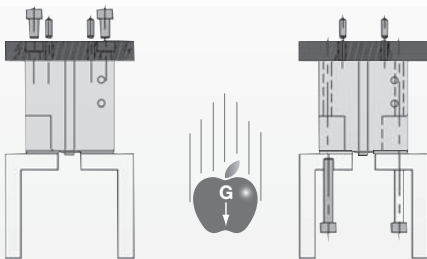
A wide range of options and accessories (extended stroke, safety springs for internal or external gripping, inductive sensors and Viton® seals) allow these grippers to be used in a number of applications.

## Harsh Environments

Shielded design repels chips and other particulate from internal drive mechanism depending on the chosen material of the shield.

### Mounting Information:

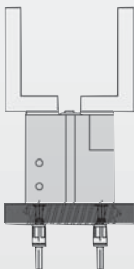
**Gripper can be mounted and operated in any orientation**



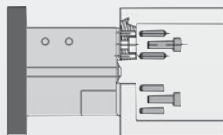
Gripper is located using 2 dowel pins and assembled from the top with 2 screws.

Gripper can also be assembled from the bottom with 2 through body screws.

Gripper is protected from debris when operated upside down.



Gripper can be operated utilizing top manifold air ports.



Fingers are located on jaw with 2 dowel pins and assembled with 1 screw.

### Technical Specifications:

#### Pneumatic Specifications

Pressure Operating Range	3-7 bar
Cylinder Type	Double Acting
Dynamic Seals	Buna-N
Valve Required to Operate:	
Double Acting	4-way, 2-position
Single acting (Option RE or RI)	3-way, 2-position

#### Air Quality Requirements

Filtration	40 Micron or Better
Lubrication	Not Necessary*

#### Temperature Operating Range

Buna-N Seals (standard)	-35°~80° C
Viton® Seals (optional)	-30°~150° C

#### Application Restrictions

Expected Life	3 million cycles
Normal Application	6 million cycles*
w/ Preventative Maintenance	Yes
Field Repairable	Yes
Seal Repair Kits Available	Yes

\*Addition of lubrication will greatly increase service life

## Product Features

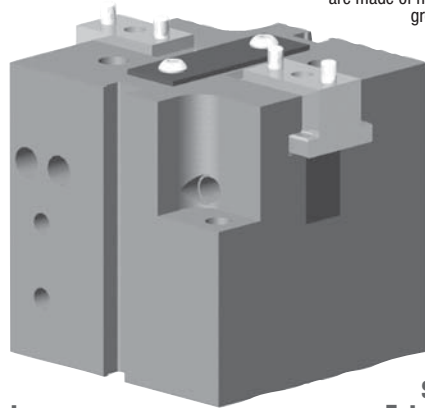
**Multiple Air Ports**  
Side or top air ports  
(top ports require O-ring)

**Angular Finger Jaws**  
Option (-Q)

**Quality Components**  
Body made from aluminum alloy with Teflon™ impregnated hardcoat anodize. Other essential parts of the gripper are made of hardened and precision ground steel

**Inductive Sensors**  
Accessory (SD) for control jaw position. Support for two sensors, adjustable screen and spacer.

**Viton® Seals**  
Optional Viton® seals (-V) for high temperatures



**Shielded Design**  
Gripper body is shielded to repel chips and other particulate from internal drive mechanism

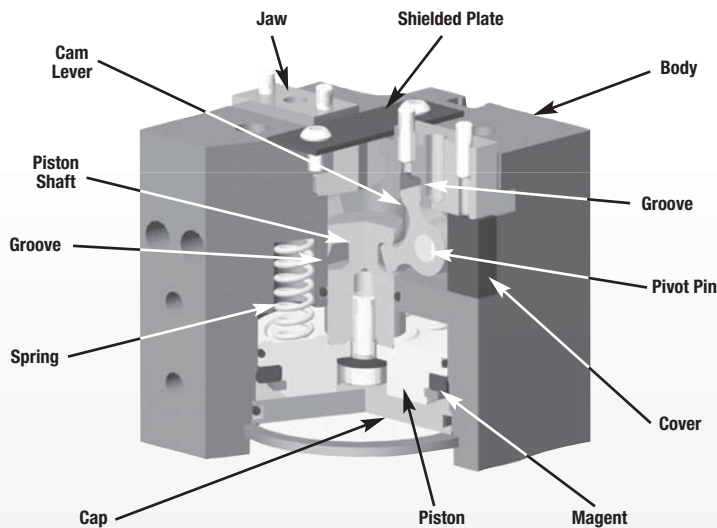
Optional: the front (push) or backward (pulling).

**Optional Spring Assist**  
Optional spring assist retains the component should the air supply fail, to assist the gripper for internal (-RE) or external (-RI) gripping, or in single acting mode

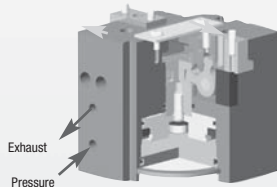
**Magnetic Sensing**  
Gripper is pre-equipped with 2 magnets for sensors, adjustable in grooves (for sensing the position of the jaw).

**Standard and Extended Stroke (-C)**  
Each model of gripper is available in two stroke lengths

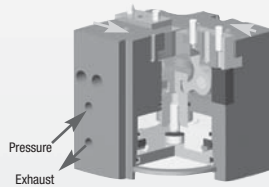
## Operating Principle



Open Stroke Position

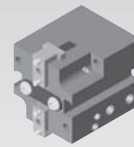


Closed Stroke Position



- A double-acting piston is connected to the piston shaft at its end with a driving groove. The piston is pre-fitted with a ring magnet for sensor detection.
- Levers pivot in the body about an axis of articulation. Their two heads agree precisely on one side in the groove of the small piston, the other in a groove cut in each jaw holder.
- The rotation of the levers converts the vertical movement of the piston in a horizontal motion and synchronized two-bit gates, which are guided in grooves in «T» fitting body.
- This gripper is suitable for internal or external gripping and can be mounted in any orientation
- Optional failsafe spring can be used to maintain gripping force if gripper loses air pressure or as a single acting return gripper.

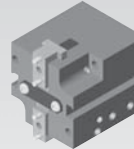
### Style: CP Parallel Gripper



Model	CP-1	CP-1-C
Total Stroke:	4 mm	6 mm
Force at 6bar: <sup>1</sup>	88 N	60 N
Force w/o air: <sup>2</sup>	15 N	10 N
Weight:	0.09 kg	0.09 kg

See Page **1.58 & 1.59**

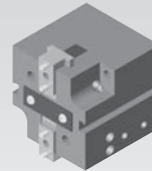
### Style: CP Parallel Gripper



Model	CP-2	CP-2-C
Total Stroke:	6 mm	9 mm
Force at 6bar: <sup>1</sup>	238 N	161 N
Force w/o air: <sup>2</sup>	43 N	29 N
Weight:	0.21 kg	0.20 kg

See Page **1.60 & 1.61**

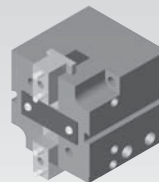
### Style: CP Parallel Gripper



Model	CP-3	CP-3-C
Total Stroke:	10 mm	16 mm
Force at 6bar: <sup>1</sup>	677 N	407 N
Force w/o air: <sup>2</sup>	161 N	97 N
Weight:	0.45 kg	0.47 kg

See Page **1.62 & 1.63**

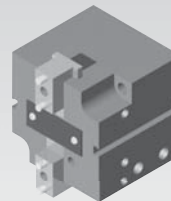
### Style: CP Parallel Gripper



Model	CP-4	CP-4-C
Total Stroke:	13 mm	20 mm
Force at 6bar: <sup>1</sup>	1016 N	665 N
Force w/o air: <sup>2</sup>	222 N	145 N
Weight:	0.73 kg	0.75 kg

See Page **1.64 & 1.65**

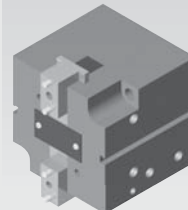
### Style: CP Parallel Gripper



Model	CP-5	CP-5-C
Total Stroke:	18 mm	27 mm
Force F <sub>6-R</sub> :	1591 N	1081 N
Force F <sub>0-R</sub> :	322 N	219 N
Weight:	1.25 kg	1.27 kg

See Page **1.66 & 1.67**

### Style: CP Parallel Gripper



Model	CP-6	CP-6-C
Total Stroke:	24 mm	32 mm
Force at 6bar: <sup>1</sup>	2749 N	2092 N
Force w/o air: <sup>2</sup>	711 N	541 N
Weight:	2.50 kg	2.56 kg

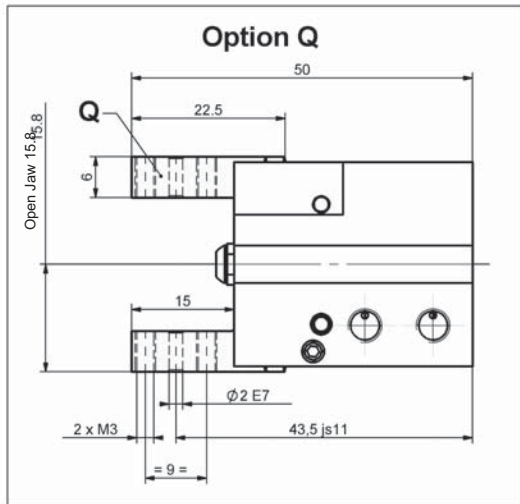
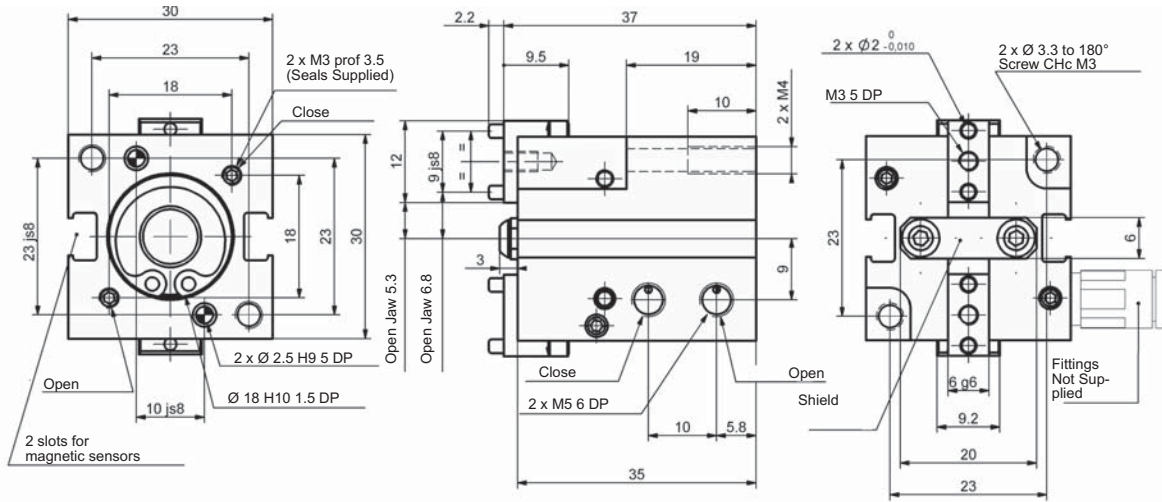
See Page **1.68 & 1.69**

## OPTIONS & ACCESSORIES

See Pages **1.72**

1. Force with spring and air at 6bar  
2. Force with spring without air

# PARALLEL GRIPPER CP-1 COMPACT GRIPPER SERIES

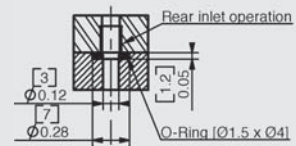


### Specifications

Specifications	CP-1
Grip Force (F6+R) <sup>1</sup> , 6 bars, Springs Mid-Way, L=0	88 N
Grip Force (F0+R) <sup>2</sup> , 0 bars, Springs Mid-Way, L=0	15 N
Total Stroke	4 mm
Weight	0.09 kg
Pressure Range	2-10 bar
Pressure Range with Springs	2.5-10 bar
Ø Cylinder Bore	16 mm
Displacement	0.7 cm <sup>3</sup>
Acuation (open / close)	0.06 s / 0.06 s
Repeatability	± 0.025

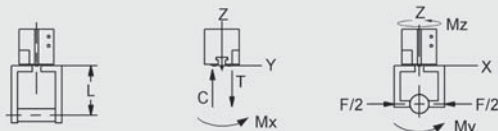
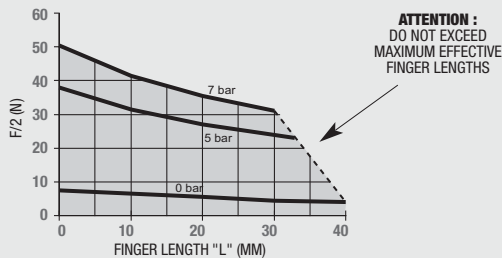
1. Force with spring and air at 6bar  
2. Force with spring without air

Grippers are supplied with open side air ports and top manifold air ports plugged. Top manifold sealing dimensions shown.



## Loading Information

Sum of forces transmitted by the jaws on the workpiece  
(Springs compressed at 50% stroke)



Loading Capacity*	Static	Dynamic
Maximum Tensile <b>T</b>	110 N	10 N
Maximum Compressive <b>C</b>	190 N	10 N
Maximum Moment <b>Mx</b>	1 Nm	0.2 Nm
Maximum Moment <b>My</b>	2 Nm	0.4 Nm
Maximum Moment <b>Mz</b>	2 Nm	0.4 Nm

\* The Capacities are per set of jaws and are not simultaneous.

## How to Order: (Order Accessories separately from Basic Model)

BASE MODEL

ANGULAR JAW

CP-1 - [ ] - [ ] - V

SPRINGS

VITON® SEALS

RE External Gripping

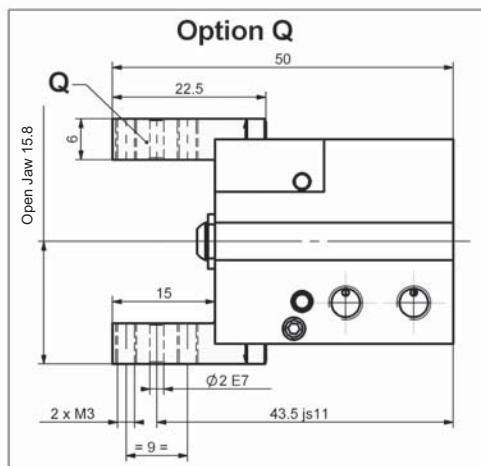
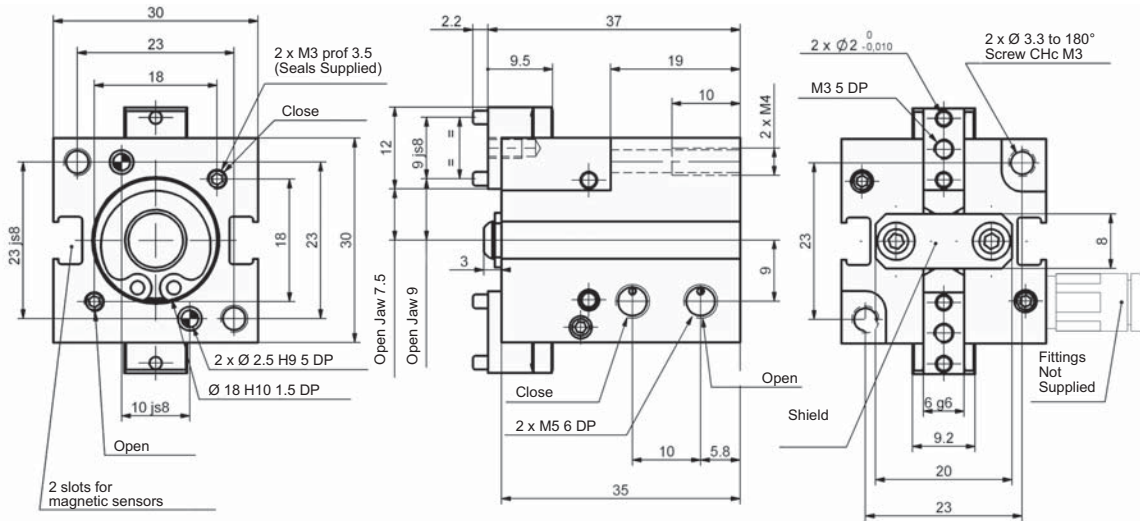
### SENSOR ACCESSORIES

	ORDER #	QTY/UNIT
PNP Sensor with 0.3m Output Cable with 90° with M8 connector	<b>D1</b>	1 or 2
PNP Sensor with 0.3m Output Cable with M8 connector	<b>D4</b>	1 or 2
Quick Disconnect 2 Meter Cable Length	<b>CABL-010</b>	1 or 2

### PNEUMATIC ACCESSORIES

Standard Seal Repair Kit	<b>SCP1</b>	1
Viton® Seal Repair Kit	<b>SCP1V</b>	1
Repair Kit (screws, springs, standard seals)	<b>KSCP1</b>	1
Repair Kit (screws, springs, seals Viton)	<b>KSCP1V</b>	1

Accessories: see page 1.72

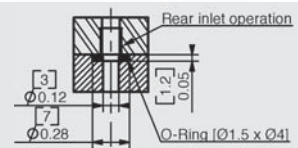


### Specifications

	CP-1-C
Grip Force (F6+R) <sup>1</sup> , 6 bars, Springs Mid-Way, L=0	60 N
Grip Force (F0+R) <sup>2</sup> , 0 bars, Springs Mid-Way, L=0	10 N
Total Stroke	6 mm
Weight	0.09 kg
Pressure Range	2-10 bar
Pressure Range with Springs	2.5-10 bar
Ø Cylinder Bore	16 mm
Displacement	0.7 cm <sup>3</sup>
Acuation (open / close)	0.06 s / 0.06 s
Repeatability	± 0.025

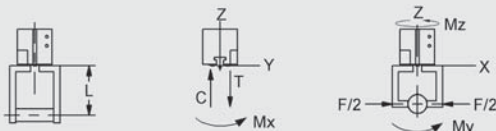
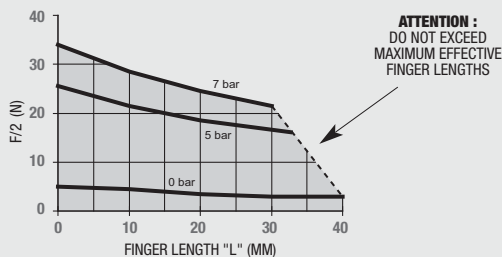
1. Force with spring and air at 6bar  
2. Force with spring without air

Grippers are supplied with open side air ports and top manifold air ports plugged. Top manifold sealing dimensions shown.



## Loading Information

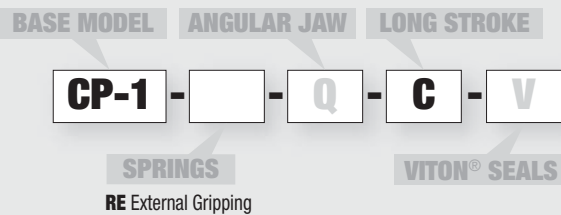
Sum of forces transmitted by the jaws on the workpiece  
(Springs compressed at 50% stroke)



Loading Capacity*	Static	Dynamic
Maximum Tensile <b>T</b>	110 N	8 N
Maximum Compressive <b>C</b>	190 N	8 N
Maximum Moment <b>Mx</b>	1 Nm	0.2 Nm
Maximum Moment <b>My</b>	2 Nm	0.3 Nm
Maximum Moment <b>Mz</b>	2 Nm	0.3 Nm

\* The Capacities are per set of jaws and are not simultaneous.

## How to Order: (Order Accessories separately from Basic Model)



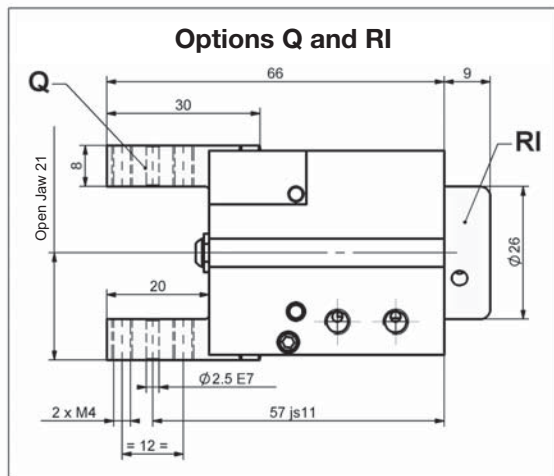
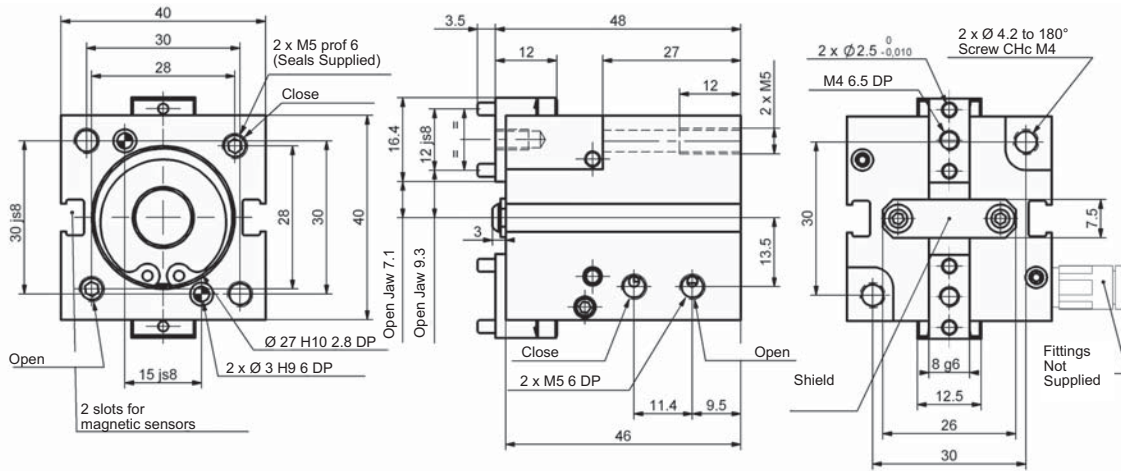
### SENSOR ACCESSORIES

	ORDER #	QTY/UNIT
PNP Sensor with 0.3m Output Cable with 90° with M8 connector	<b>D1</b>	1 or 2
PNP Sensor with 0.3m Output Cable with M8 connector	<b>D4</b>	1 or 2
Quick Disconnect 2 Meter Cable Length	<b>CABL-010</b>	1 or 2

### PNEUMATIC ACCESSORIES

	ORDER #	QTY/UNIT
Standard Seal Repair Kit	<b>SCP1</b>	1
Viton® Seal Repair Kit	<b>SCP1V</b>	1
Repair Kit (screws, springs, standard seals)	<b>KSCP1</b>	1
Repair Kit (screws, springs, seals Viton)	<b>KSCP1V</b>	1

Accessories: see page 1.72

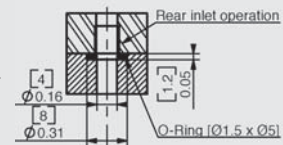


### Specifications

	CP-2
Grip Force (F <sub>G+R</sub> ) <sup>1</sup> , 6 bars, Springs Mid-Way, L=0	238 N
Grip Force (F <sub>0+R</sub> ) <sup>2</sup> , 0 bars, Springs Mid-Way, L=0	43 N
Total Stroke	6 mm
Weight	0.21 kg
Pressure Range	2-10 bar
Pressure Range with Springs	2.5-10 bar
Ø Cylinder Bore	25 mm
Displacement	2.7 cm <sup>3</sup>
Acuation (open / close)	0.06 s / 0.06 s
Repeatability	± 0.025

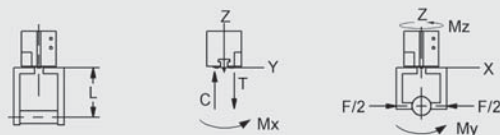
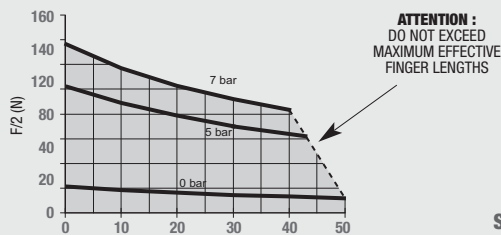
1. Force with spring and air at 6bar
2. Force with spring without air

Grippers are supplied with open side air ports and top manifold air ports plugged. Top manifold sealing dimensions shown.



## Loading Information

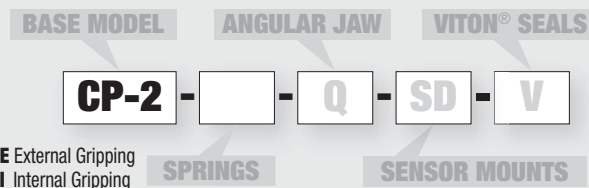
Sum of forces transmitted by the jaws on the workpiece  
(Springs compressed at 50% stroke)



Loading Capacity*	Static	Dynamic
Maximum Tensile <b>T</b>	110 N	10 N
Maximum Compressive <b>C</b>	190 N	10 N
Maximum Moment <b>M<sub>x</sub></b>	1 Nm	0.2 Nm
Maximum Moment <b>M<sub>y</sub></b>	2 Nm	0.4 Nm
Maximum Moment <b>M<sub>z</sub></b>	2 Nm	0.4 Nm

\* The Capacities are per set of jaws and are not simultaneous.

## How to Order: (Order Accessories separately from Basic Model)



### SENSOR ACCESSORIES

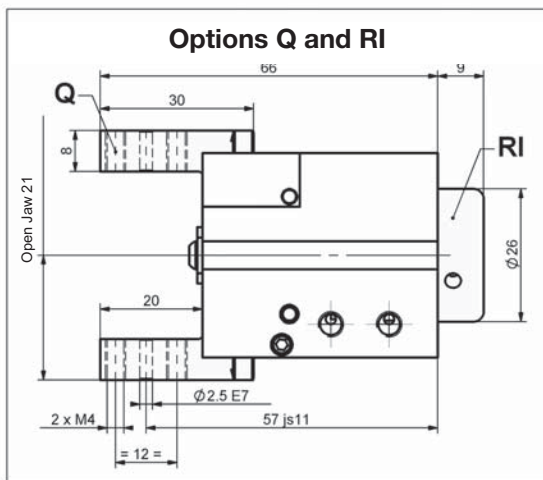
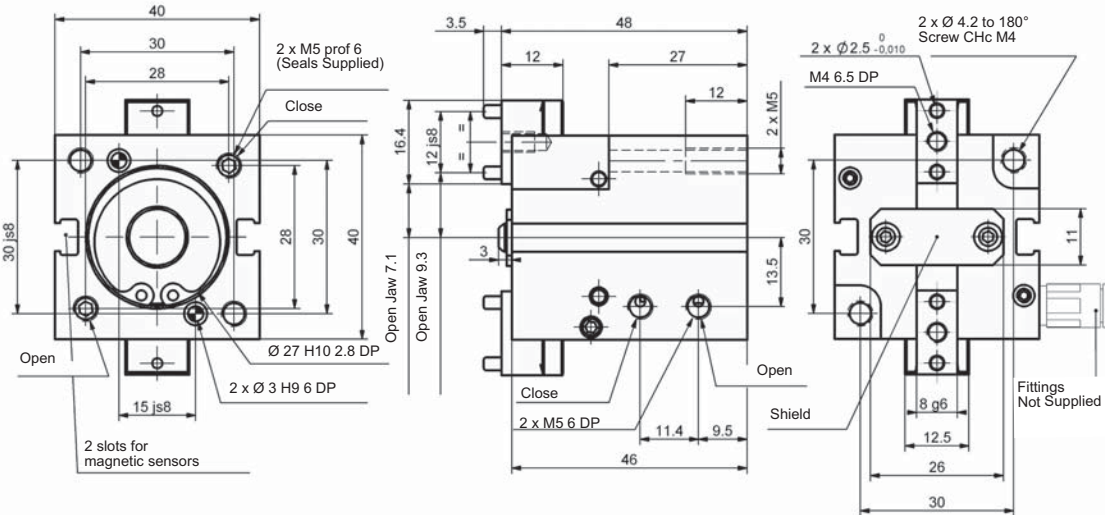
	ORDER #	QTY/UNIT
PNP Sensor with 0.3m Output Cable with 90° with M8 connector	<b>D1</b>	1 or 2
NPN Sensor with 0.3m Output Cable with 90° with M8 connector	<b>D10</b>	1 or 2
PNP Sensor with 0.3m Output Cable with M8 connector	<b>D4</b>	1 or 2
NPN Sensor with 0.3m Output Cable with M8 connector	<b>D7</b>	1 or 2
Inductive Sensor Mounting Kit for (mounts 2 sensors) (SD)	<b>SDCP2</b>	1
Inductive PNP Sensor with M8 Connector	<b>OISP-011-C</b>	1 or 2
Inductive NPN Sensor with M8 Connector	<b>OINP-011-C</b>	1 or 2
Quick Disconnect 2 Meter Cable Length	<b>CABL-010</b>	1 or 2

### PNEUMATIC ACCESSORIES

Standard Seal Repair Kit	<b>SCP2</b>	1
Viton® Seal Repair Kit	<b>SCP2V</b>	1
Repair Kit (screws, springs, standard seals)	<b>KSCP2</b>	1
Repair Kit (screws, springs, seals Viton)	<b>KSCP2V</b>	1

Accessories: see page 1.72



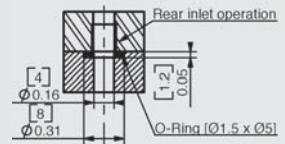


### Specifications

	CP-2-C
Grip Force (F <sub>6+R</sub> ) <sup>1</sup> , 6 bars, Springs Mid-Way, L=0	161 N
Grip Force (F <sub>0+R</sub> ) <sup>2</sup> , 0 bars, Springs Mid-Way, L=0	29 N
Total Stroke	9 mm
Weight	0.20 kg
Pressure Range	2-10 bar
Pressure Range with Springs	2.5-10 bar
Ø Cylinder Bore	25 mm
Displacement	2.7 cm <sup>3</sup>
Acuation (open / close)	0.06 s / 0.06 s
Repeatability	± 0.025

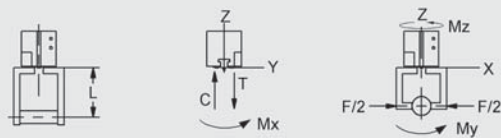
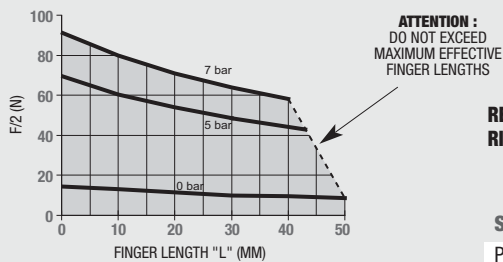
1. Force with spring and air at 6bar
2. Force with spring without air

Grippers are supplied with open side air ports and top manifold air ports plugged. Top manifold sealing dimensions shown.



## Loading Information

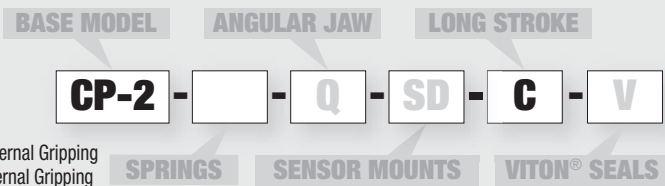
Sum of forces transmitted by the jaws on the workpiece  
(Springs compressed at 50% stroke)



Loading Capacity*	Static	Dynamic
Maximum Tensile <b>T</b>	260 N	22 N
Maximum Compressive <b>C</b>	375 N	22 N
Maximum Moment <b>M<sub>x</sub></b>	4 Nm	0.7 Nm
Maximum Moment <b>M<sub>y</sub></b>	8 Nm	1.2 Nm
Maximum Moment <b>M<sub>z</sub></b>	8 Nm	1.2 Nm

\* The Capacities are per set of jaws and are not simultaneous.

## How to Order: (Order Accessories separately from Basic Model)



RE External Gripping  
RI Internal Gripping

### SENSOR ACCESSORIES

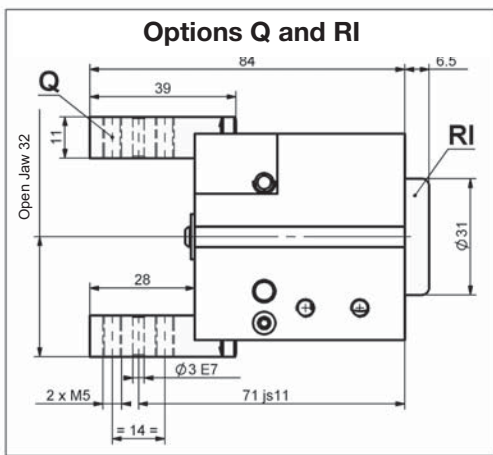
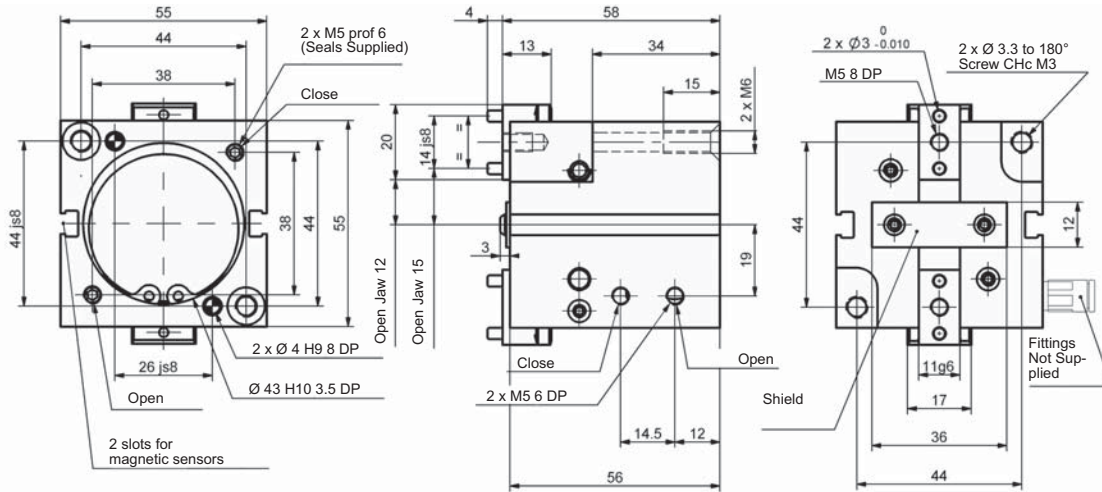
	ORDER #	QTY/UNIT
PNP Sensor with 0.3m Output Cable with 90° with M8 connector	<b>D1</b>	1 or 2
NPN Sensor with 0.3m Output Cable with 90° with M8 connector	<b>D10</b>	1 or 2
PNP Sensor with 0.3m Output Cable with M8 connector	<b>D4</b>	1 or 2
NPN Sensor with 0.3m Output Cable with M8 connector	<b>D7</b>	1 or 2
Inductive Sensor Mounting Kit for (mounts 2 sensors) (SD)	<b>SDCP2</b>	1
Inductive PNP Sensor with M8 Connector	<b>OISP-011-C</b>	1 or 2
Inductive NPN Sensor with M8 Connector	<b>OINP-011-C</b>	1 or 2
Quick Disconnect 2 Meter Cable Length	<b>CABL-010</b>	1 or 2

### PNEUMATIC ACCESSORIES

Standard Seal Repair Kit	<b>SCP2</b>	1
Viton® Seal Repair Kit	<b>SCP2V</b>	1
Repair Kit (screws, springs, standard seals)	<b>KSCP2</b>	1
Repair Kit (screws, springs, seals Viton)	<b>KSCP2V</b>	1

Accessories: see page 1.72

# PARALLEL GRIPPER CP-3 COMPACT GRIPPER SERIES

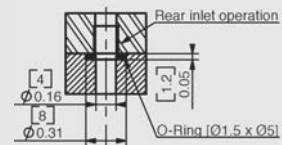


### Specifications

	CP-3
Grip Force (F <sub>G+R</sub> ) <sup>1</sup> , 6 bars, Springs Mid-Way, L=0	677 N
Grip Force (F <sub>0+R</sub> ) <sup>2</sup> , 0 bars, Springs Mid-Way, L=0	161 N
Total Stroke	10 mm
Weight	0.45 kg
Pressure Range	2-10 bar
Pressure Range with Springs	3-10 bar
Ø Cylinder Bore	40 mm
Displacement	11.7 cm <sup>3</sup>
Acuation (open / close)	0.07 s / 0.07 s
Repeatability	± 0.025

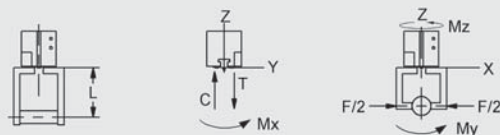
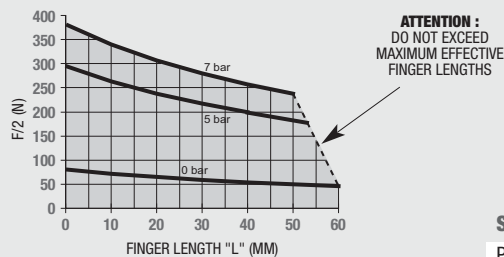
1. Force with spring and air at 6bar  
2. Force with spring without air

Grippers are supplied with open side air ports and top manifold air ports plugged. Top manifold sealing dimensions shown.



## Loading Information

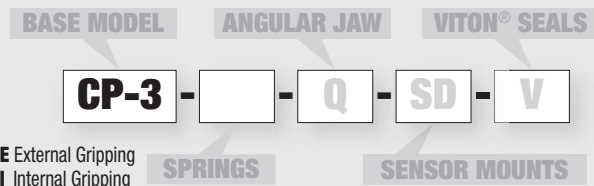
Sum of forces transmitted by the jaws on the workpiece  
(Springs compressed at 50% stroke)



Loading Capacity*	Static		Dynamic	
	T	C	Mx	My
Maximum Tensile <b>T</b>	520 N	72 N	11 Nm	3.5 Nm
Maximum Compressive <b>C</b>	690 N	72 N	18 Nm	6 Nm
Maximum Moment <b>Mx</b>			17 Nm	6 Nm
Maximum Moment <b>My</b>				
Maximum Moment <b>Mz</b>				

\* The Capacities are per set of jaws and are not simultaneous.

## How to Order: (Order Accessories separately from Basic Model)



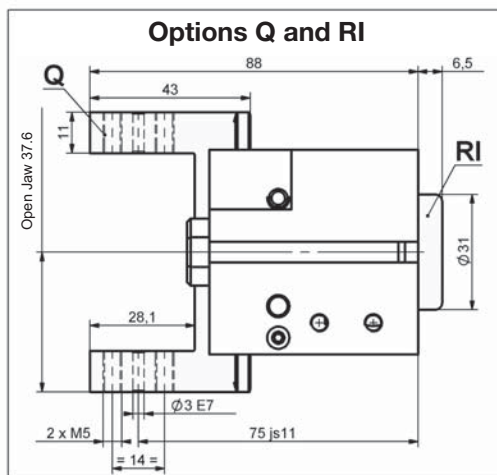
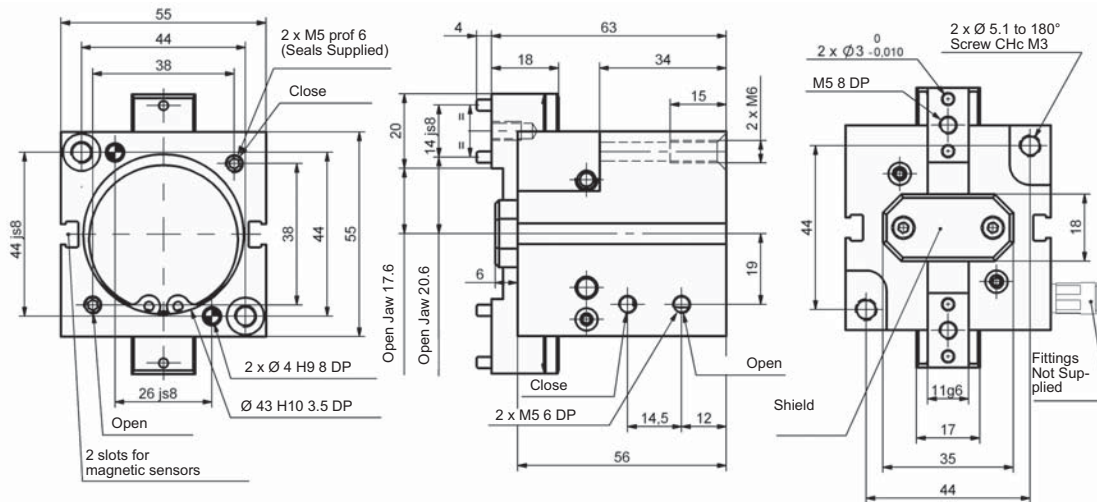
### SENSOR ACCESSORIES

	ORDER #	QTY/UNIT
PNP Sensor with 0.3m Output Cable with 90° with M8 connector	<b>D1</b>	1 or 2
NPN Sensor with 0.3m Output Cable with 90° with M8 connector	<b>D10</b>	1 or 2
PNP Sensor with 0.3m Output Cable with M8 connector	<b>D4</b>	1 or 2
NPN Sensor with 0.3m Output Cable with M8 connector	<b>D7</b>	1 or 2
Inductive Sensor Mounting Kit for (mounts 2 sensors) (SD)	<b>SDCP3</b>	1
Inductive PNP Sensor with M8 Connector	<b>OISP-011-C</b>	1 or 2
Inductive NPN Sensor with M8 Connector	<b>OINP-011-C</b>	1 or 2
Quick Disconnect 2 Meter Cable Length	<b>CABL-010</b>	1 or 2

### PNEUMATIC ACCESSORIES

Standard Seal Repair Kit	<b>SCP3</b>	1
Viton® Seal Repair Kit	<b>SCP3V</b>	1
Repair Kit (screws, springs, standard seals)	<b>KSCP3</b>	1
Repair Kit (screws, springs, seals Viton)	<b>KSCP3V</b>	1

Accessories: see page 1.72

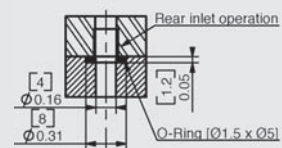


### Specifications

	CP-3-C
Grip Force (F <sub>G+R</sub> ) <sup>1</sup> , 6 bars, Springs Mid-Way, L=0	407 N
Grip Force (F <sub>0+R</sub> ) <sup>2</sup> , 0 bars, Springs Mid-Way, L=0	97 N
Total Stroke	16 mm
Weight	0.47 kg
Pressure Range	2-10 bar
Pressure Range with Springs	3-10 bar
Ø Cylinder Bore	40 mm
Displacement	11.7 cm <sup>3</sup>
Acuation (open / close)	0.07 s / 0.07 s
Repeatability	± 0.025

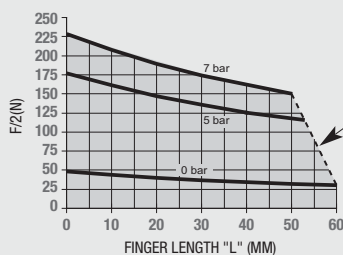
1. Force with spring and air at 6bar  
2. Force with spring without air

Grippers are supplied with open side air ports and top manifold air ports plugged. Top manifold sealing dimensions shown.

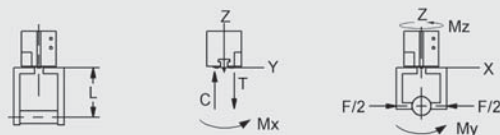


## Loading Information

Sum of forces transmitted by the jaws on the workpiece  
(Springs compressed at 50% stroke)



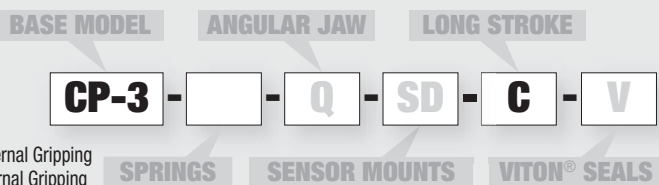
**ATTENTION :**  
DO NOT EXCEED  
MAXIMUM EFFECTIVE  
FINGER LENGTHS



Loading Capacity*	Static	Dynamic
Maximum Tensile <b>T</b>	500 N	55 N
Maximum Compressive <b>C</b>	675 N	55 N
Maximum Moment <b>M<sub>x</sub></b>	9 Nm	2.5 Nm
Maximum Moment <b>M<sub>y</sub></b>	16 Nm	4 Nm
Maximum Moment <b>M<sub>z</sub></b>	17 Nm	4 Nm

\* The Capacities are per set of jaws and are not simultaneous.

## How to Order: (Order Accessories separately from Basic Model)



RE External Gripping  
RI Internal Gripping

### SENSOR ACCESSORIES

	ORDER #	QTY/UNIT
PNP Sensor with 0.3m Output Cable with 90° with M8 connector	<b>D1</b>	1 or 2
NPN Sensor with 0.3m Output Cable with 90° with M8 connector	<b>D10</b>	1 or 2
PNP Sensor with 0.3m Output Cable with M8 connector	<b>D4</b>	1 or 2
NPN Sensor with 0.3m Output Cable with M8 connector	<b>D7</b>	1 or 2
Inductive Sensor Mounting Kit for (mounts 2 sensors) (SD)	<b>SDCP3</b>	1
Inductive PNP Sensor with M8 Connector	<b>OISP-011-C</b>	1 or 2
Inductive NPN Sensor with M8 Connector	<b>OINP-011-C</b>	1 or 2
Quick Disconnect 2 Meter Cable Length	<b>CABL-010</b>	1 or 2

### PNEUMATIC ACCESSORIES

Standard Seal Repair Kit	<b>SCP3</b>	1
Viton® Seal Repair Kit	<b>SCP3V</b>	1
Repair Kit (screws, springs, standard seals)	<b>KSCP3</b>	1
Repair Kit (screws, springs, seals Viton)	<b>KSCP3V</b>	1

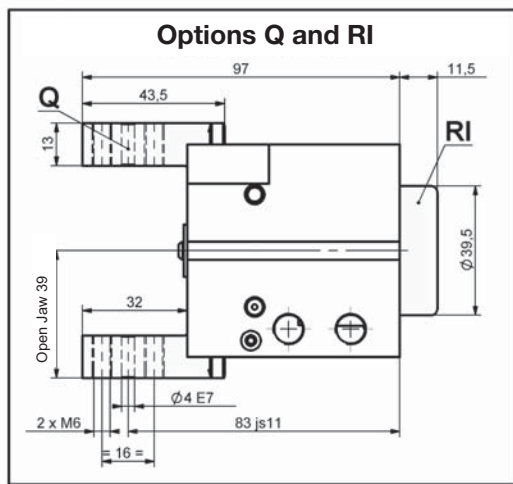
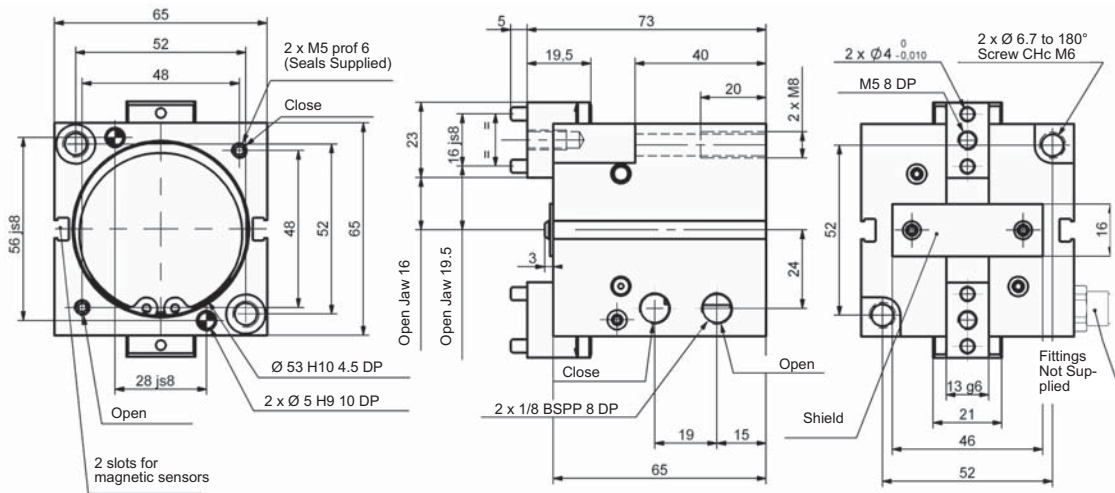
Accessories: see page 1.72



# PARALLEL GRIPPER CP-4 COMPACT GRIPPER SERIES

CP SERIES

1.66

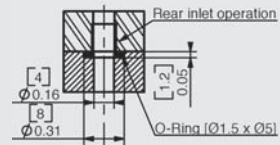


### Specifications

	CP-4
Grip Force (F <sub>6+R</sub> ) <sup>1</sup> , 6 bars, Springs Mid-Way, L=0	1016 N
Grip Force (F <sub>0+R</sub> ) <sup>2</sup> , 0 bars, Springs Mid-Way, L=0	222 N
Total Stroke	13 mm
Weight	0.73 kg
Pressure Range	2-10 bar
Pressure Range with Springs	3-10 bar
Ø Cylinder Bore	50 mm
Displacement	24.2 cm <sup>3</sup>
Acuation (open / close)	0.07 s / 0.07 s
Repeatability	± 0.025

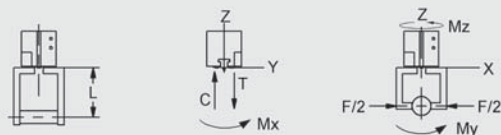
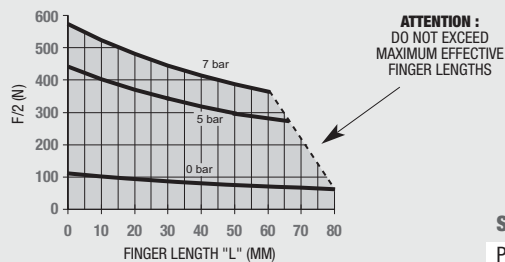
1. Force with spring and air at 6bar  
2. Force with spring without air

Grippers are supplied with open side air ports and top manifold air ports plugged. Top manifold sealing dimensions shown.



## Loading Information

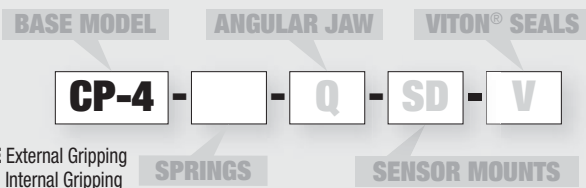
Sum of forces transmitted by the jaws on the workpiece  
(Springs compressed at 50% stroke)



Loading Capacity*	Static		Dynamic	
	Static	Dynamic	Static	Dynamic
Maximum Tensile <b>T</b>	740 N	109 N		
Maximum Compressive <b>C</b>	830 N	109 N		
Maximum Moment <b>Mx</b>	23 Nm	6.5 Nm		
Maximum Moment <b>My</b>	35 Nm	10 Nm		
Maximum Moment <b>Mz</b>	25 Nm	8 Nm		

\* The Capacities are per set of jaws and are not simultaneous.

## How to Order: (Order Accessories separately from Basic Model)



RE External Gripping  
RI Internal Gripping

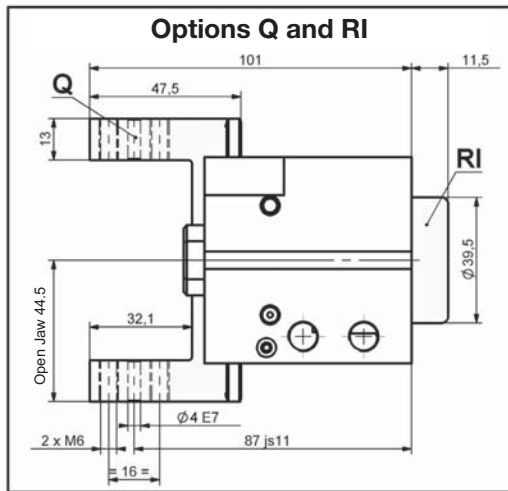
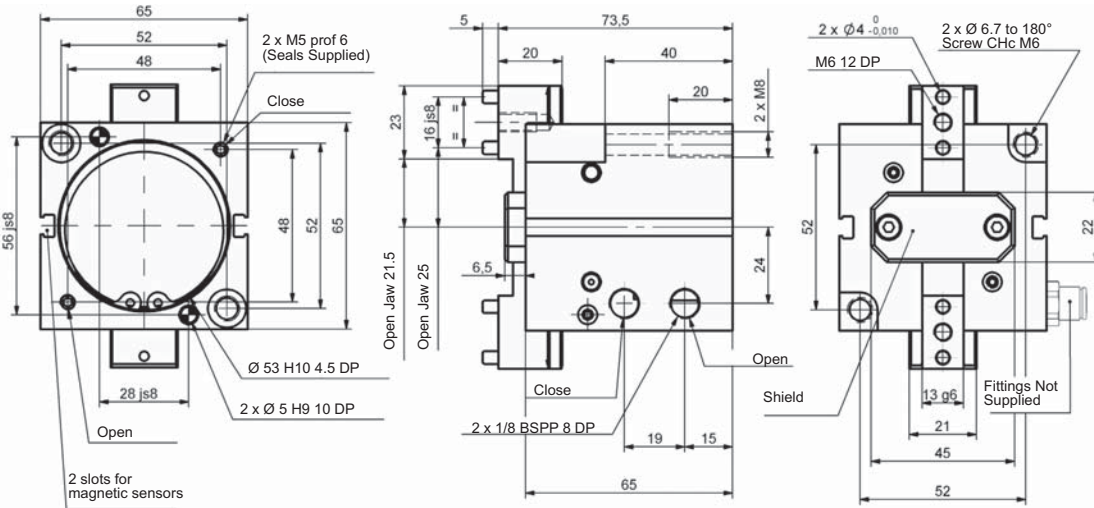
### SENSOR ACCESSORIES

	ORDER #	QTY/UNIT
PNP Sensor with 0.3m Output Cable with 90° with M8 connector	<b>D1</b>	1 or 2
NPN Sensor with 0.3m Output Cable with 90° with M8 connector	<b>D10</b>	1 or 2
PNP Sensor with 0.3m Output Cable with M8 connector	<b>D4</b>	1 or 2
NPN Sensor with 0.3m Output Cable with M8 connector	<b>D7</b>	1 or 2
Inductive Sensor Mounting Kit for (mounts 2 sensors) (SD)	<b>SDCP4</b>	1
Inductive PNP Sensor with M8 Connector	<b>OISP-011-C</b>	1 or 2
Inductive NPN Sensor with M8 Connector	<b>OINP-011-C</b>	1 or 2
Quick Disconnect 2 Meter Cable Length	<b>CABL-010</b>	1 or 2

### PNEUMATIC ACCESSORIES

Standard Seal Repair Kit	<b>SCP4</b>	1
Viton® Seal Repair Kit	<b>SCP4V</b>	1
Repair Kit (screws, springs, standard seals)	<b>KSCP4</b>	1
Repair Kit (screws, springs, seals Viton)	<b>KSCP4V</b>	1

Accessories: see page 1.72



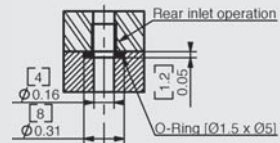
### Specifications

Grip Force (F <sub>G+R</sub> ) <sup>1</sup> , 6 bars, Springs Mid-Way, L=0	665 N
Grip Force (F <sub>0+R</sub> ) <sup>2</sup> , 0 bars, Springs Mid-Way, L=0	145 N
Total Stroke	20 mm
Weight	0.75 kg
Pressure Range	2-10 bar
Pressure Range with Springs	3-10 bar
Ø Cylinder Bore	50 mm
Displacement	24.2 cm <sup>3</sup>
Acuation (open / close)	0.07 s / 0.07 s
Repeatability	± 0.025

1. Force with spring and air at 6bar  
2. Force with spring without air

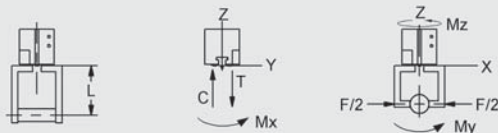
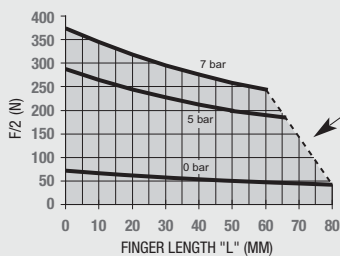
### CP-4-C

Grippers are supplied with open side air ports and top manifold air ports plugged. Top manifold sealing dimensions shown.



## Loading Information

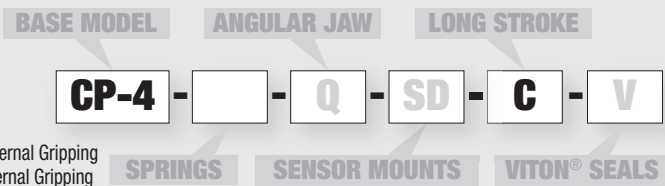
Sum of forces transmitted by the jaws on the workpiece  
(Springs compressed at 50% stroke)



Loading Capacity*	Static	Dynamic
Maximum Tensile <b>T</b>	710 N	89 N
Maximum Compressive <b>C</b>	800 N	89 N
Maximum Moment <b>M<sub>x</sub></b>	18 Nm	4.7 Nm
Maximum Moment <b>M<sub>y</sub></b>	30 Nm	7.6 Nm
Maximum Moment <b>M<sub>z</sub></b>	25 Nm	7.6 Nm

\* The Capacities are per set of jaws and are not simultaneous.

## How to Order: (Order Accessories separately from Basic Model)



### SENSOR ACCESSORIES

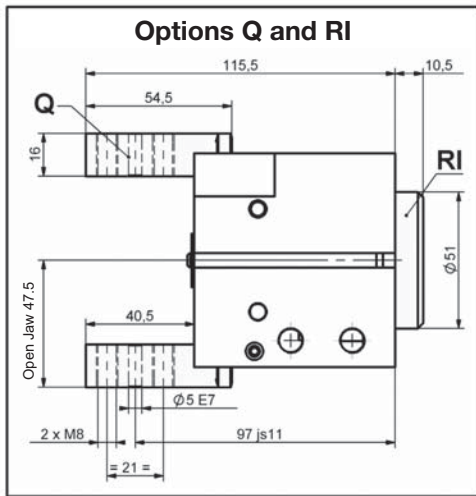
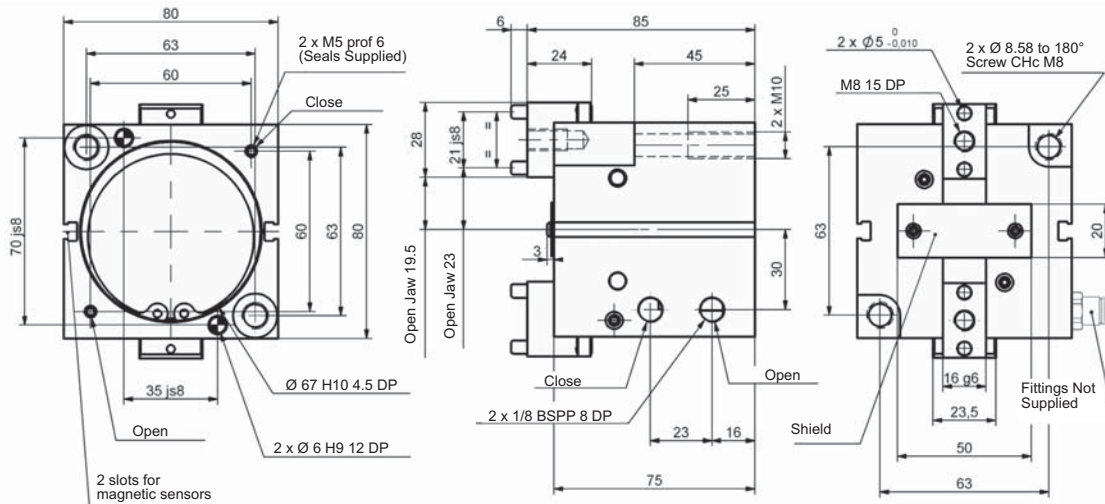
	ORDER #	QTY/UNIT
PNP Sensor with 0.3m Output Cable with 90° with M8 connector	<b>D1</b>	1 or 2
NPN Sensor with 0.3m Output Cable with 90° with M8 connector	<b>D10</b>	1 or 2
PNP Sensor with 0.3m Output Cable with M8 connector	<b>D4</b>	1 or 2
NPN Sensor with 0.3m Output Cable with M8 connector	<b>D7</b>	1 or 2
Inductive Sensor Mounting Kit for (mounts 2 sensors) (SD)	<b>SDCP4</b>	1
Inductive PNP Sensor with M8 Connector	<b>OISP-011-C</b>	1 or 2
Inductive NPN Sensor with M8 Connector	<b>OINP-011-C</b>	1 or 2
Quick Disconnect 2 Meter Cable Length	<b>CABL-010</b>	1 or 2

### PNEUMATIC ACCESSORIES

Standard Seal Repair Kit	<b>SCP4</b>	1
Viton® Seal Repair Kit	<b>SCP4V</b>	1
Repair Kit (screws, springs, standard seals)	<b>KSCP4</b>	1
Repair Kit (screws, springs, seals Viton)	<b>KSCP4V</b>	1

Accessories: see page 1.72

# PARALLEL GRIPPER CP-5 COMPACT GRIPPER SERIES

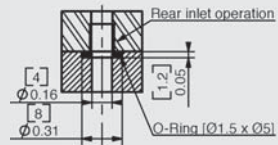


### Specifications

	CP-5
Grip Force (F <sub>6+R</sub> ) <sup>1</sup> , 6 bars, Springs Mid-Way, L=0	1591 N
Grip Force (F <sub>0+R</sub> ) <sup>2</sup> , 0 bars, Springs Mid-Way, L=0	322 N
Total Stroke	18 mm
Weight	1.25 kg
Pressure Range	2-10 bar
Pressure Range with Springs	3-10 bar
Ø Cylinder Bore	63 mm
Displacement	53.5 cm <sup>3</sup>
Acuation (open / close)	0.09 s / 0.09 s
Repeatability	± 0.025

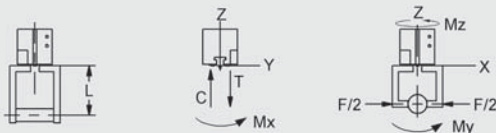
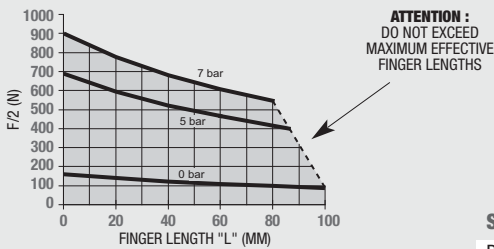
1. Force with spring and air at 6bar  
2. Force with spring without air

Grippers are supplied with open side air ports and top manifold air ports plugged. Top manifold sealing dimensions shown.



## Loading Information

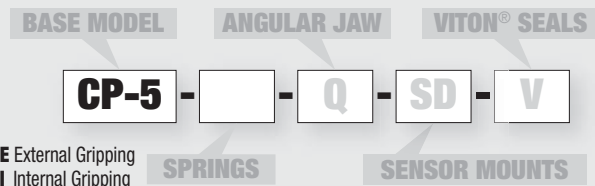
Sum of forces transmitted by the jaws on the workpiece  
(Springs compressed at 50% stroke)



Loading Capacity*	Static	Dynamic
Maximum Tensile <b>T</b>	830 N	169 N
Maximum Compressive <b>C</b>	940 N	169 N
Maximum Moment <b>M<sub>x</sub></b>	27 Nm	9 Nm
Maximum Moment <b>M<sub>y</sub></b>	44 Nm	14 Nm
Maximum Moment <b>M<sub>z</sub></b>	30 Nm	10 Nm

\* The Capacities are per set of jaws and are not simultaneous.

## How to Order: (Order Accessories separately from Basic Model)



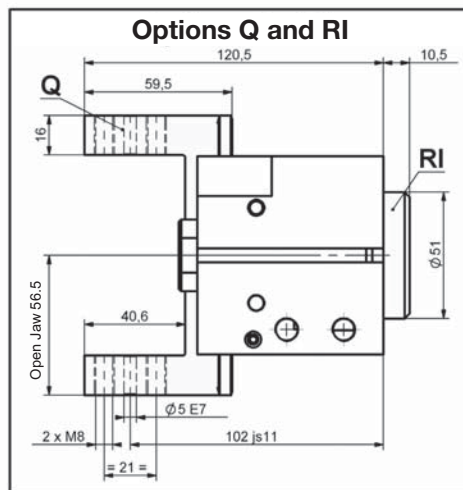
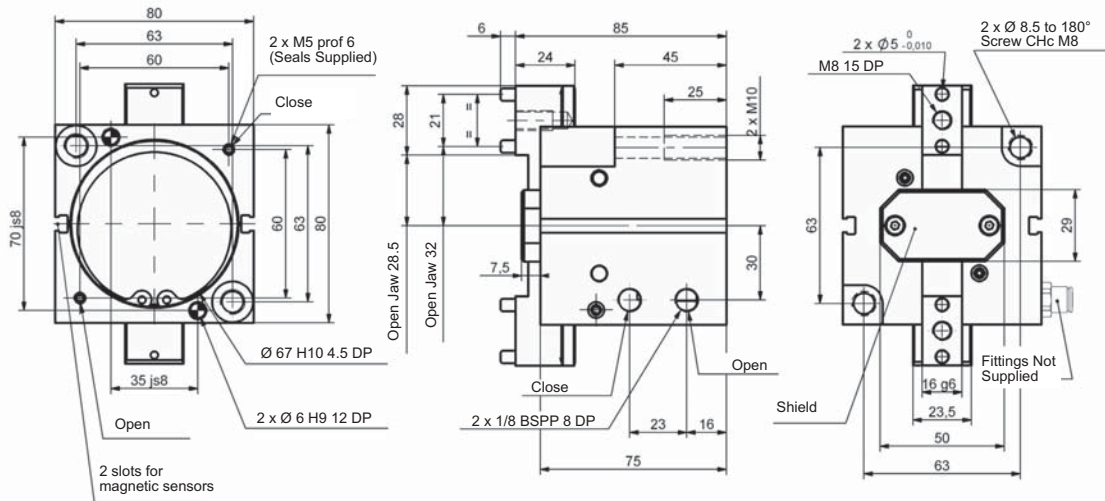
### SENSOR ACCESSORIES

	ORDER #	QTY/UNIT
PNP Sensor with 0.3m Output Cable with 90° with M8 connector	<b>D1</b>	1 or 2
NPN Sensor with 0.3m Output Cable with 90° with M8 connector	<b>D10</b>	1 or 2
PNP Sensor with 0.3m Output Cable with M8 connector	<b>D4</b>	1 or 2
NPN Sensor with 0.3m Output Cable with M8 connector	<b>D7</b>	1 or 2
Inductive Sensor Mounting Kit for (mounts 2 sensors) (SD)	<b>SDCP5</b>	1
Inductive PNP Sensor with M12 Connector	<b>OISP-017-C</b>	1 or 2
Inductive NPN Sensor with M12 Connector	<b>OINP-017-C</b>	1 or 2
Quick Disconnect 2 Meter M12 Cable Length	<b>CABL-014</b>	1 or 2

### PNEUMATIC ACCESSORIES

Standard Seal Repair Kit	<b>SCP5</b>	1
Viton® Seal Repair Kit	<b>SCP5V</b>	1
Repair Kit (screws, springs, standard seals)	<b>KSCP5</b>	1
Repair Kit (screws, springs, seals Viton)	<b>KSCP5V</b>	1

Accessories: see page 1.72

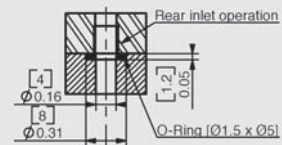


### Specifications

	CP-5-C
Grip Force (F <sub>G+R</sub> ) <sup>1</sup> , 6 bars, Springs Mid-Way, L=0	1081 N
Grip Force (F <sub>0+R</sub> ) <sup>2</sup> , 0 bars, Springs Mid-Way, L=0	219 N
Total Stroke	27 mm
Weight	1.27 kg
Pressure Range	2-10 bar
Pressure Range with Springs	3-10 bar
Ø Cylinder Bore	63 mm
Displacement	53.5 cm <sup>3</sup>
Acuation (open / close)	0.09 s / 0.09 s
Repeatability	± 0.025

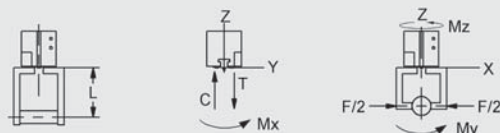
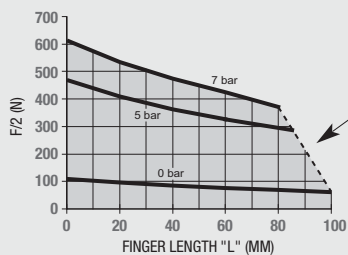
1. Force with spring and air at 6bar  
2. Force with spring without air

Grippers are supplied with open side air ports and top manifold air ports plugged. Top manifold sealing dimensions shown.



## Loading Information

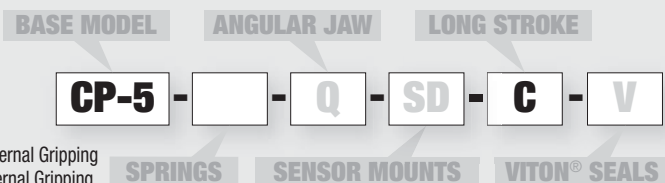
Sum of forces transmitted by the jaws on the workpiece  
(Springs compressed at 50% stroke)



Loading Capacity*	Static	Dynamic
Maximum Tensile <b>T</b>	820 N	144 N
Maximum Compressive <b>C</b>	930 N	144 N
Maximum Moment <b>M<sub>x</sub></b>	22 Nm	7 Nm
Maximum Moment <b>M<sub>y</sub></b>	40 Nm	13 Nm
Maximum Moment <b>M<sub>z</sub></b>	30 Nm	10 Nm

\* The Capacities are per set of jaws and are not simultaneous.

## How to Order: (Order Accessories separately from Basic Model)



RE External Gripping  
RI Internal Gripping

### SENSOR ACCESSORIES

	ORDER #	QTY/UNIT
PNP Sensor with 0.3m Output Cable with 90° with M8 connector	<b>D1</b>	1 or 2
NPN Sensor with 0.3m Output Cable with 90° with M8 connector	<b>D10</b>	1 or 2
PNP Sensor with 0.3m Output Cable with M8 connector	<b>D4</b>	1 or 2
NPN Sensor with 0.3m Output Cable with M8 connector	<b>D7</b>	1 or 2
Inductive Sensor Mounting Kit for (mounts 2 sensors) (SD)	<b>SDCP5</b>	1
Inductive PNP Sensor with M8 Connector	<b>OISP-017-C</b>	1 or 2
Inductive NPN Sensor with M8 Connector	<b>OINP-017-C</b>	1 or 2
Quick Disconnect 2 Meter Cable Length	<b>CABL-014</b>	1 or 2

### PNEUMATIC ACCESSORIES

Standard Seal Repair Kit	<b>SCP5</b>	1
Viton® Seal Repair Kit	<b>SCP5V</b>	1
Repair Kit (screws, springs, standard seals)	<b>KSCP5</b>	1
Repair Kit (screws, springs, seals Viton)	<b>KSCP5V</b>	1

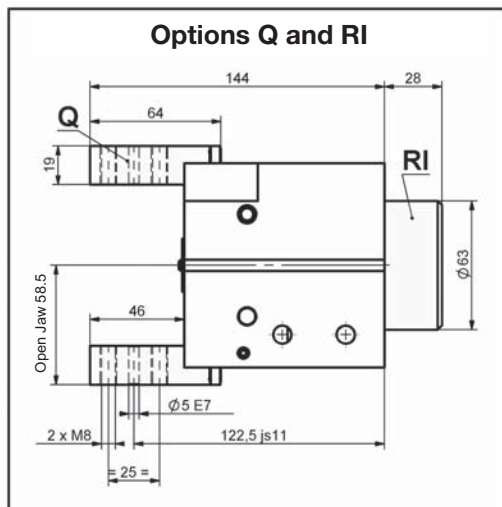
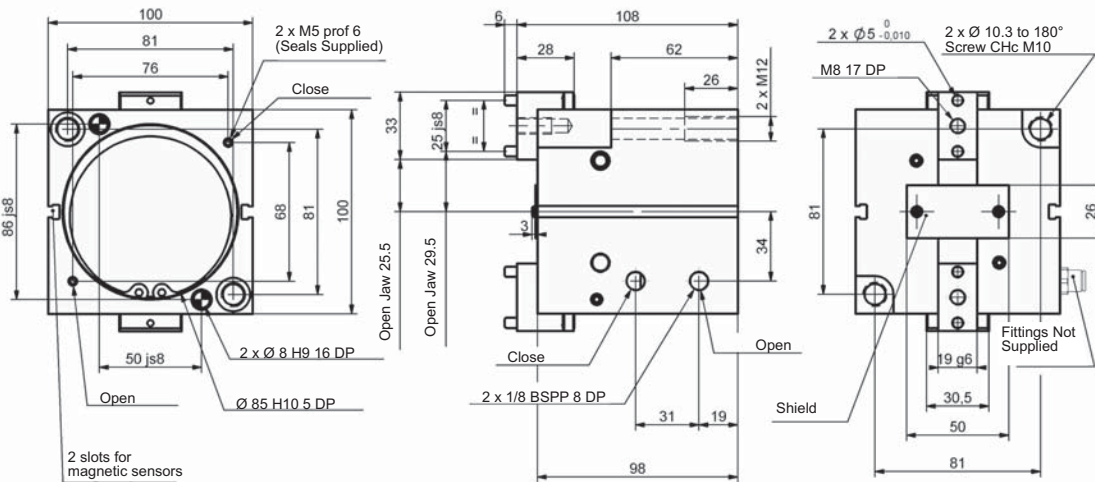
Accessories: see page 1.72



# PARALLEL GRIPPER CP-6 COMPACT GRIPPER SERIES

CP SERIES

1.70

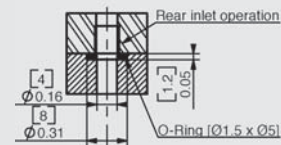


### Specifications

	CP-6
Grip Force (F <sub>6+R</sub> ) <sup>1</sup> , 6 bars, Springs Mid-Way, L=0	2749 N
Grip Force (F <sub>0+R</sub> ) <sup>2</sup> , 0 bars, Springs Mid-Way, L=0	711 N
Total Stroke	24 mm
Weight	2.50 kg
Pressure Range	2-10 bar
Pressure Range with Springs	3.5-10 bar
Ø Cylinder Bore	80 mm
Displacement	114.8 cm <sup>3</sup>
Acuation (open / close)	0.12 s / 0.12 s
Repeatability	± 0.025

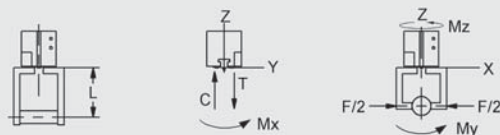
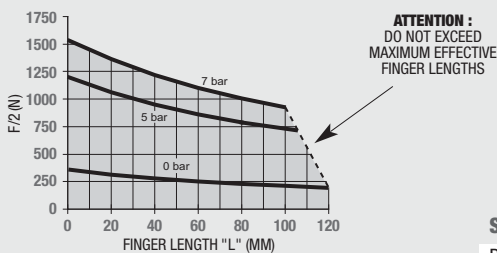
1. Force with spring and air at 6bar  
2. Force with spring without air

Grippers are supplied with open side air ports and top manifold air ports plugged. Top manifold sealing dimensions shown.



## Loading Information

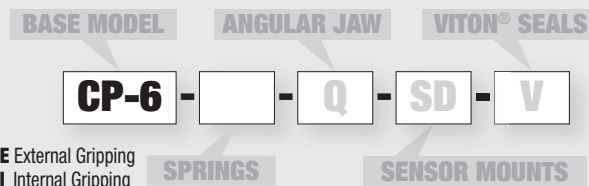
Sum of forces transmitted by the jaws on the workpiece  
(Springs compressed at 50% stroke)



Loading Capacity*	Static	Dynamic
Maximum Tensile <b>T</b>	1375 N	209 N
Maximum Compressive <b>C</b>	1500 N	209 N
Maximum Moment <b>M<sub>x</sub></b>	48 Nm	16 Nm
Maximum Moment <b>M<sub>y</sub></b>	72 Nm	24 Nm
Maximum Moment <b>M<sub>z</sub></b>	68 Nm	22 Nm

\* The Capacities are per set of jaws and are not simultaneous.

## How to Order: (Order Accessories separately from Basic Model)



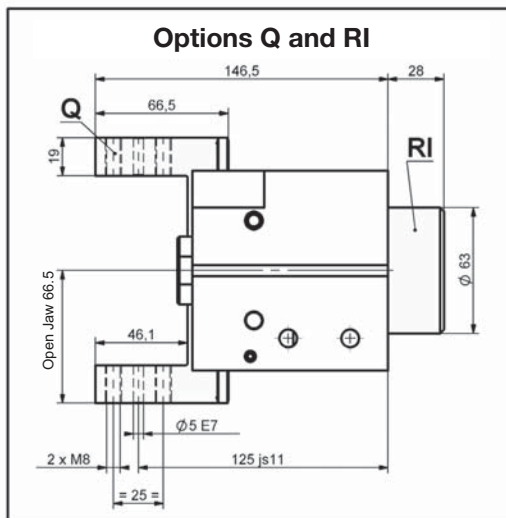
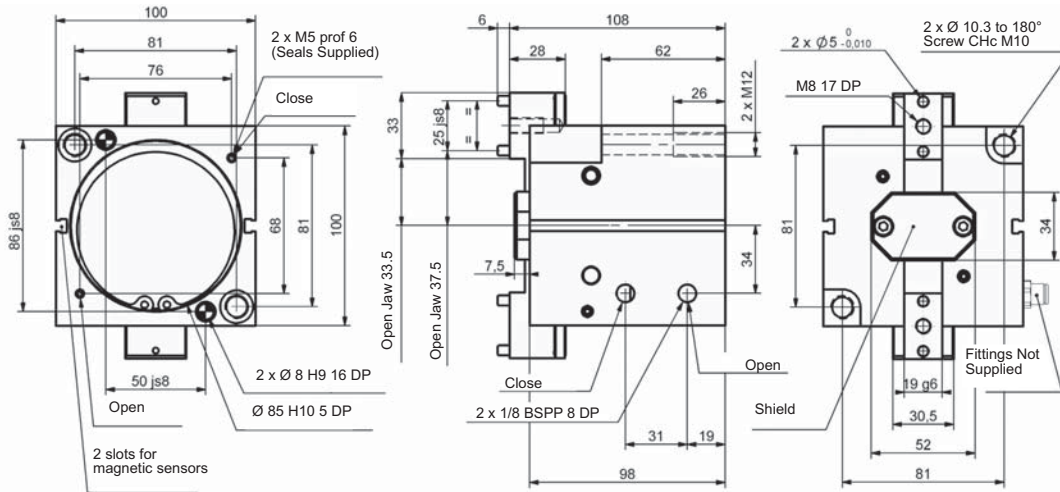
### SENSOR ACCESSORIES

	ORDER #	QTY/UNIT
PNP Sensor with 0.3m Output Cable with 90° with M8 connector	<b>D1</b>	1 or 2
NPN Sensor with 0.3m Output Cable with 90° with M8 connector	<b>D10</b>	1 or 2
PNP Sensor with 0.3m Output Cable with M8 connector	<b>D4</b>	1 or 2
NPN Sensor with 0.3m Output Cable with M8 connector	<b>D7</b>	1 or 2
Inductive Sensor Mounting Kit for (mounts 2 sensors) (SD)	<b>SDCP6</b>	1
Inductive PNP Sensor with M12 Connector	<b>OISP-017-C</b>	1 or 2
Inductive NPN Sensor with M12 Connector	<b>OINP-017-C</b>	1 or 2
Quick Disconnect 2 Meter M12 Cable Length	<b>CABL-014</b>	1 or 2

### PNEUMATIC ACCESSORIES

Standard Seal Repair Kit	<b>SCP6</b>	1
Viton® Seal Repair Kit	<b>SCP6V</b>	1
Repair Kit (screws, springs, standard seals)	<b>KSCP6</b>	1
Repair Kit (screws, springs, seals Viton)	<b>KSCP6V</b>	1

Accessories: see page 1.72

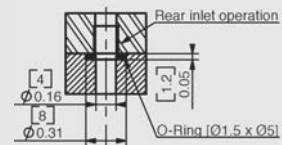


### Specifications

	CP-6-C
Grip Force (F <sub>G+R</sub> ) <sup>1</sup> , 6 bars, Springs Mid-Way, L=0	2092 N
Grip Force (F <sub>0+R</sub> ) <sup>2</sup> , 0 bars, Springs Mid-Way, L=0	541 N
Total Stroke	32 mm
Weight	2.56 kg
Pressure Range	2-10 bar
Pressure Range with Springs	3.5-10 bar
Ø Cylinder Bore	80 mm
Displacement	114.8 cm <sup>3</sup>
Acuation (open / close)	0.12 s / 0.12 s
Repeatability	± 0.025

1. Force with spring and air at 6bar  
2. Force with spring without air

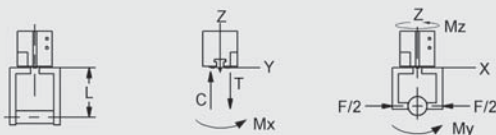
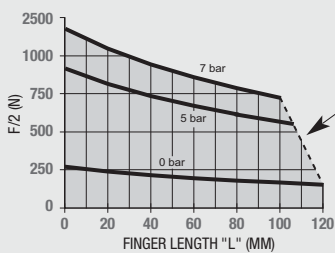
Grippers are supplied with open side air ports and top manifold air ports plugged. Top manifold sealing dimensions shown.



## Loading Information

## How to Order: (Order Accessories separately from Basic Model)

Sum of forces transmitted by the jaws on the workpiece  
(Springs compressed at 50% stroke)



Loading Capacity*	Static		Dynamic	
	Value	Value	Value	Value
Maximum Tensile <b>T</b>	1340 N	279 N	279 N	279 N
Maximum Compressive <b>C</b>	1450 N	279 N	279 N	279 N
Maximum Moment <b>M<sub>x</sub></b>	42 Nm	14 Nm	14 Nm	14 Nm
Maximum Moment <b>M<sub>y</sub></b>	70 Nm	23 Nm	23 Nm	23 Nm
Maximum Moment <b>M<sub>z</sub></b>	64 Nm	21 Nm	21 Nm	21 Nm

\* The Capacities are per set of jaws and are not simultaneous.

BASE MODEL    ANGULAR JAW    LONG STROKE

CP-6 - [ ] - Q - SD - C - V

RE External Gripping  
RI Internal Gripping

SPRINGS    SENSOR MOUNTS    VITON® SEALS

### SENSOR ACCESSORIES

	ORDER #	QTY/UNIT
PNP Sensor with 0.3m Output Cable with 90° with M8 connector	<b>D1</b>	1 or 2
NPN Sensor with 0.3m Output Cable with 90° with M8 connector	<b>D10</b>	1 or 2
PNP Sensor with 0.3m Output Cable with M8 connector	<b>D4</b>	1 or 2
NPN Sensor with 0.3m Output Cable with M8 connector	<b>D7</b>	1 or 2
Inductive Sensor Mounting Kit for (mounts 2 sensors) (SD)	<b>SDCP6</b>	1
Inductive PNP Sensor with M8 Connector	<b>OISP-017-C</b>	1 or 2
Inductive NPN Sensor with M8 Connector	<b>OINP-017-C</b>	1 or 2
Quick Disconnect 2 Meter Cable Length	<b>CABL-014</b>	1 or 2

### PNEUMATIC ACCESSORIES

Standard Seal Repair Kit	<b>SCP6</b>	1
Viton® Seal Repair Kit	<b>SCP6V</b>	1
Repair Kit (screws, springs, standard seals)	<b>KSCP6</b>	1
Repair Kit (screws, springs, seals Viton)	<b>KSCP6V</b>	1

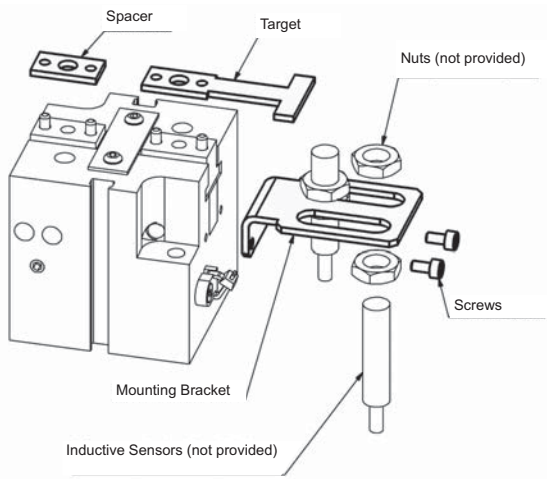
Accessories: see page 1.72

**Accessories (SD): Inductive Sensor Mounting Kit**

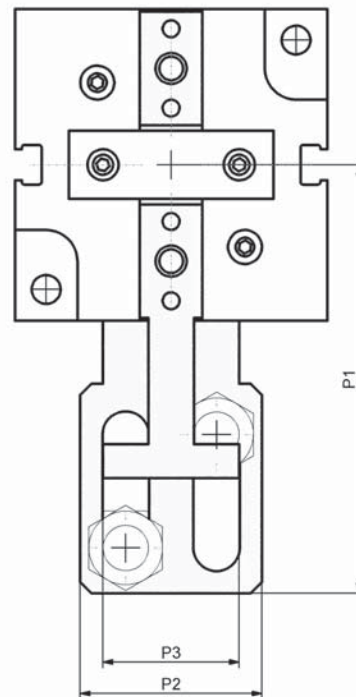
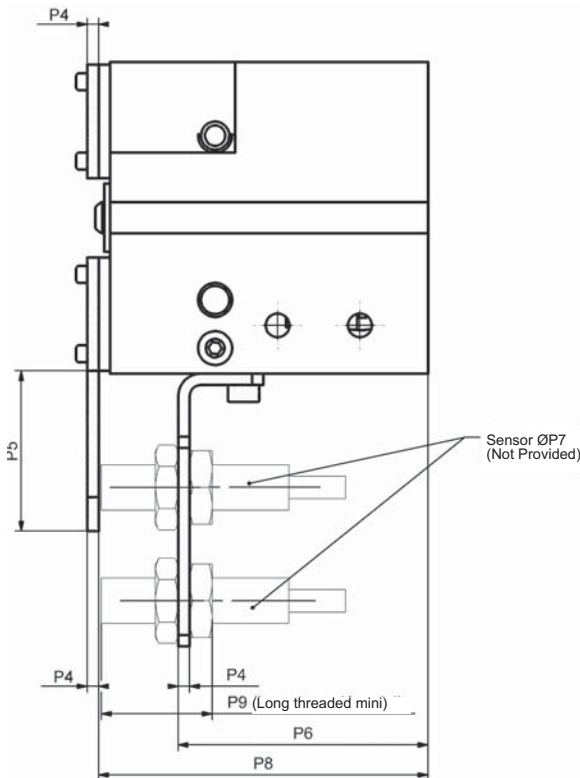
Allows for sensing of two positions: open and closed jaw. The accessory kit (SD) includes: 1 sensor bracket, 1 flag and screws. **Sensors are not provided.**

**NOTES:**

To be usable, the cylindrical inductive sensors selected by the customer must have tapped their bodies to a minimum depth H (see table below). Depending on their length, the cylindrical inductive sensors can extend below the clamp, requiring provision of suitable housing in the surrounding parts. It is possible to control more than 2 positions using a second attachment (SD).



MODELS	P1	P2	P3	P4	P5	P6	P7	P8	P9	Order #
CP-1	accessory not available									
CP-1-C	accessory not available									
CP-2	58	32	24	2	21.9	35.5	8	48	18	SDCP2
CP-2-C	58	32	24	2	21.9	35.5	8	48	18	SDCP2
CP-3	75.5	32	24	2	28.2	44	8	58	20	SDCP3
CP-3-C	75.5	32	24	2	28.2	44	8	63	24	SDCP3
CP-4	80.5	32	24	2	27	52.5	8	73	26	SDCP4
CP-4-C	80.5	32	24	2	27	52.5	8	73.5	27	SDCP4
CP-5	108	43	28	2.5	38	60	12	85	33	SDCP5
CP-5-C	108	43	28	2.5	38	60	12	85	33	SDCP5
CP-6	118	43	28	2.5	39	76.5	12	108	39	SDCP6
CP-6-C	118	43	28	2.5	39	76.5	12	108	39	SDCP6



**Option (V) : Viton® Seals**

Gripper with Viton® seals allows for use in high temperature environments [-30 ° C or 150 ° C].



# DESIGN NOTES

CP SERIES

1.73

