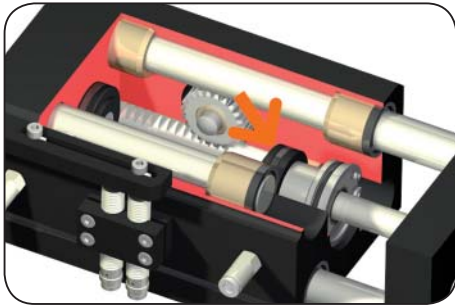


# 2-Jaw Parallel Grippers with Long Stroke

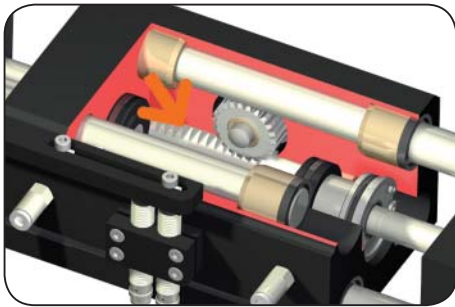
## Highlights



### Drive unit

#### Two double-action pneumatic cylinders

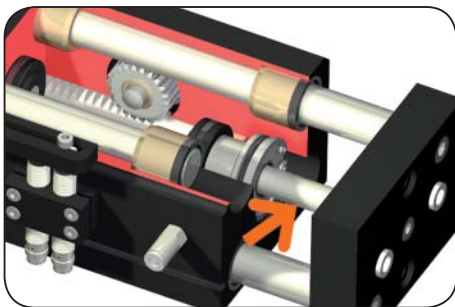
- High drive force when opening and closing
- Gripping force of up to 910N



### Power transmission

#### Direct drive synchronized by gear

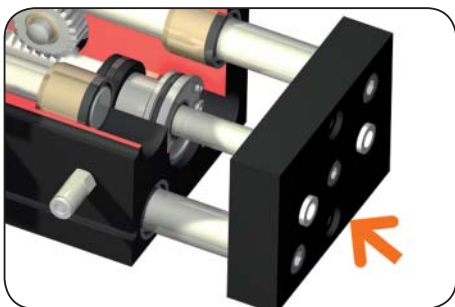
- Maximum gripper force
- Central grip action achieved with synchronized gripper jaws
- High-precision repeatability



### Guide

#### Triple round guide

- High precision
- Overlapping guide rods



### Gripper jaw location

#### Location of individual gripper jaws using centring sleeves

- Precise positioning of individual gripper jaws
- Fast, economical and therefore cost-effective changing of gripper jaws

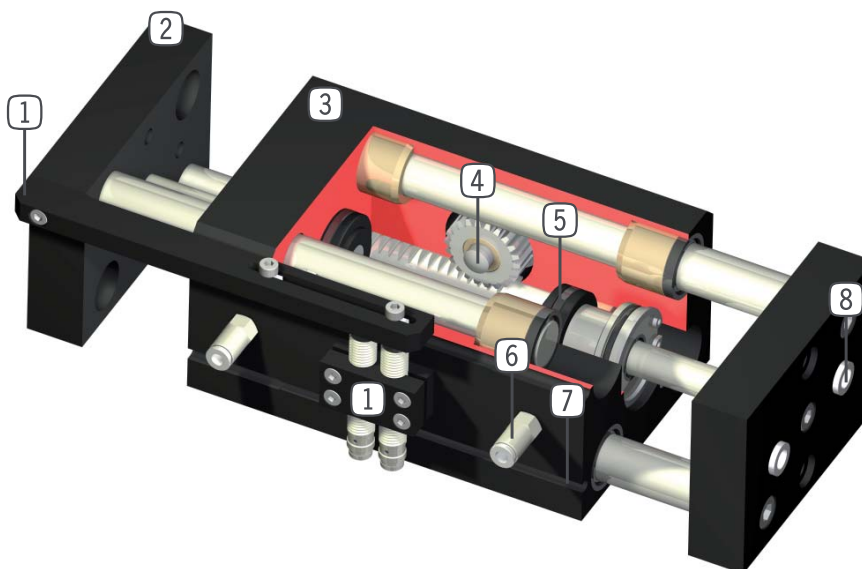


## Terms

Gripping force:	mathematic sum of the individual forces occurring at the jaws
Closing/opening time:	required time for the gripper jaws to cover the maximum stroke distance
Repeatability:	dispersion at end stop positions during 50/100 consecutive cycles
Cycle:	one complete movement of the piston forward and back
Maintenance:	<p>maintenance free to 10 mil. cycles</p> <p>(please see the owner's manual for details, download at <a href="http://www.sommer-automatic.com">www.sommer-automatic.com</a>)</p> <ul style="list-style-type: none"> <li>- long maintenance intervals keep costs down</li> <li>- long durability</li> </ul>

## Design

- ① **Attachment kit (cam switch and clamping block)**
  - For sensing position by means of proximity switch (optional feature)
- ② **Gripper jaws**
  - individual gripper finger mounting
- ⑤ **Drive unit**
  - Two double-acting pneumatic cylinders
- ⑥ **Power supply**
  - Possible from several sides



- ③ **Robust, lightweight housing**
  - Hard-coated aluminium alloy
- ④ **Synchronization**
  - Via rack & pinion
- ⑦ **Integrated groove**
  - Mounting and positioning of magnetic field sensors
- ⑧ **Removable centering sleeves**
  - Fast and cost-effective positioning of gripper fingers

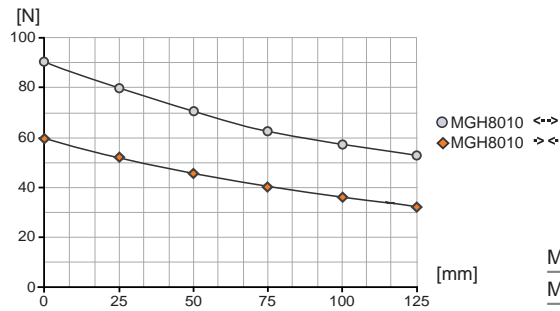
# 2-Jaw Parallel Grippers with Long Stroke



Picture shows MGH8010

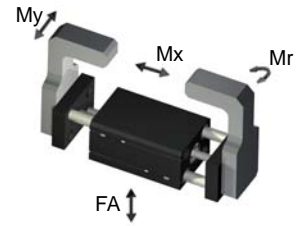
## Gripping force diagram

Gripping force as a function of jaw length.



## Forces and Moments

Max. allowable forces and moments on jaws.



Mr [Nm]:	12
Mx [Nm]:	12
My [Nm]:	8
Fa [N]:	260

### Included with purchase



Centring sleeve  
Order no.: **BDST40400**

### Recommended accessories



Adaptor Kit  
Order no.: **ANS0027**



Pneumatic fittings  
Order no.: **WVM5**



Proximity switch  
Order no.: **NJ4-E2**



Magnetic field sensor  
Order no.: **MFS204KHC**

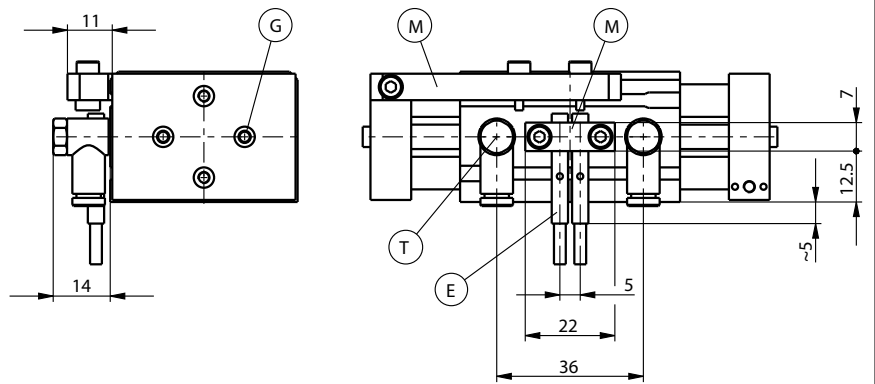


Magnetic field sensor  
Order no.: **MFS103KHC**

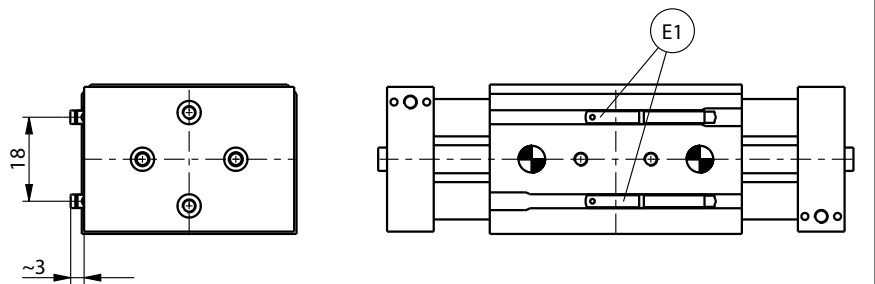


Pressure safety valve  
Order no.: **DSV1/8**

## Accessory



## Accessory

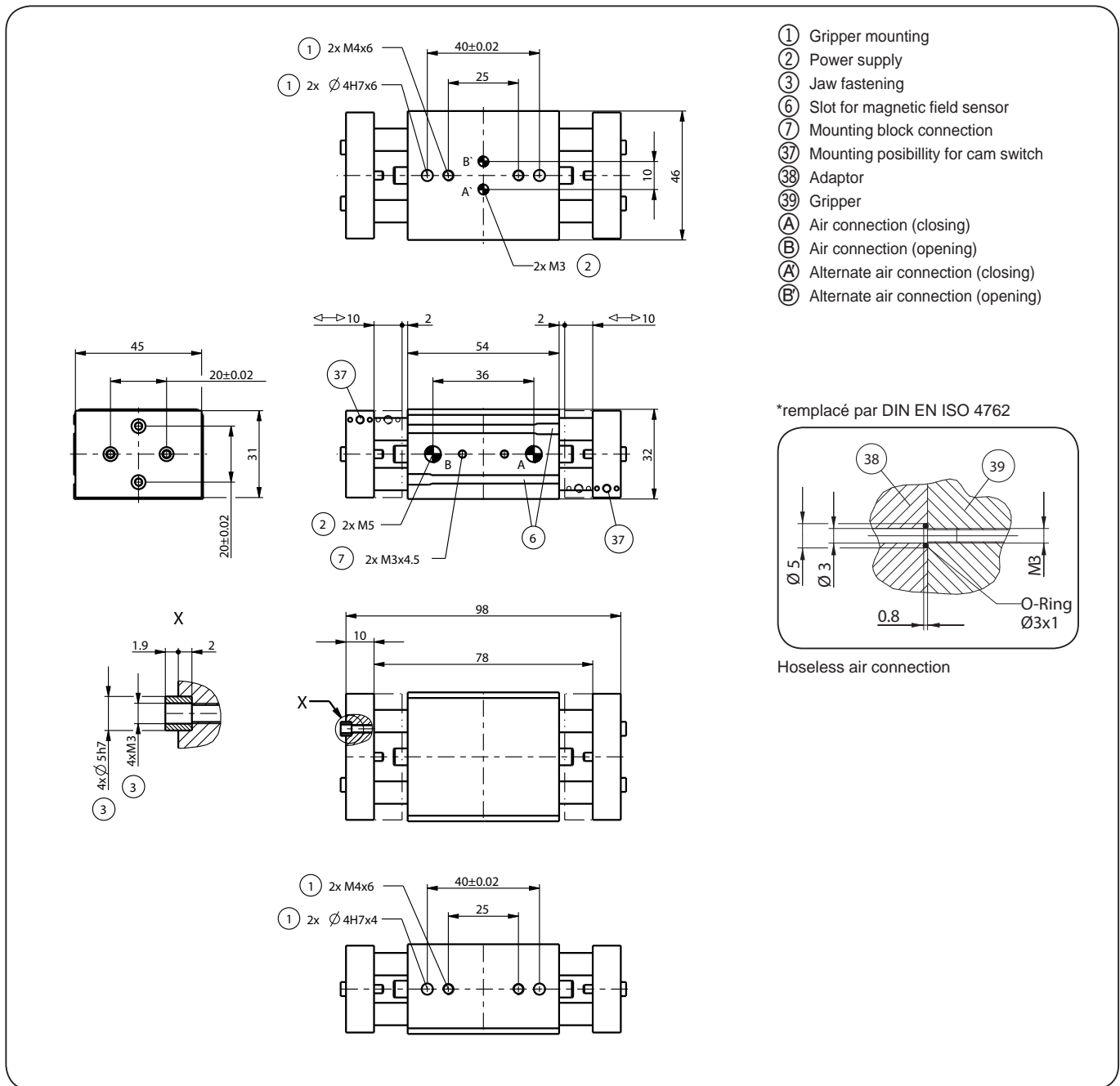


Subject to change without prior notice

<b>Order no.:</b>	<b>MGH8010</b>
Stroke per jaw [mm]:	10
Gripping force in closing [N]:	60
Gripping force in opening [N]:	90
Closing time / opening time [s]:	0,07 / 0,04
Repeatability +/- [mm]:	0,05
Operating pressure min. [bar]:	3
Operating pressure max. [bar]:	8
Operating temperature [°C]*:	5-80
Air volume per cycle [cm³]:	4
Weight [kg]:	0,350

All data measured at 6 bar

\* High-temperature-resistant model (up to 150°C) add T to part number



Subject to change without prior notice

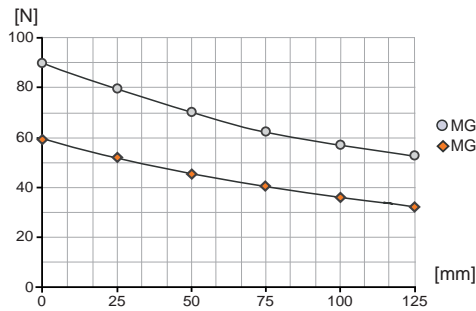
# 2-Jaw Parallel Grippers with Long Stroke



Picture shows MGH8020

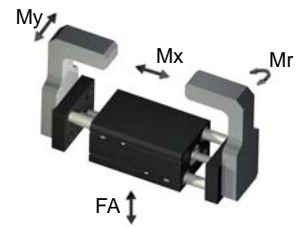
## Gripping force diagram

Gripping force as a function of jaw length.



## Forces and Moments

Max. allowable forces and moments on jaws.



Mr [Nm]:	12
Mx [Nm]:	12
My [Nm]:	8
Fa [N]:	260

### Included with purchase



Centring sleeve  
Order no.: **BDST40400**

### Recommended accessories



Adaptor Kit  
Order no.: **ANS0028**



Pneumatic fittings  
Order no.: **WVM5**



Proximity switch  
Order no.: **NJ4-E2**



Magnetic field sensor  
Order no.: **MFS204KHC**

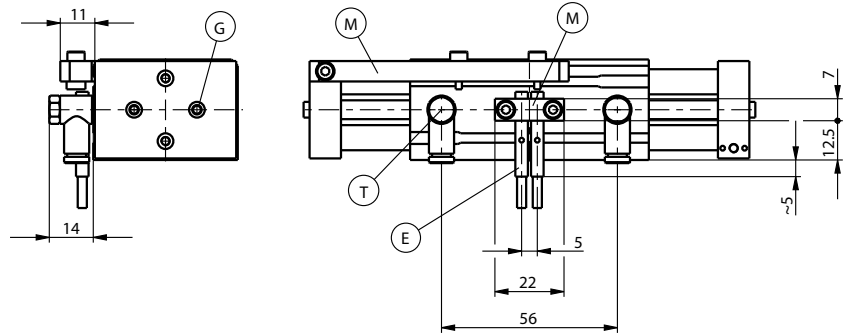


Magnetic field sensor  
Order no.: **MFS103KHC**

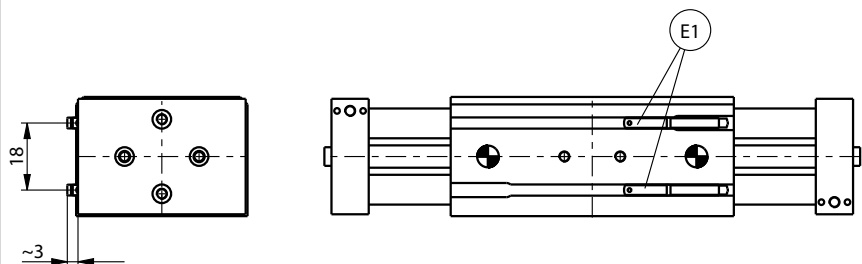


Pressure safety valve  
Order no.: **DSV1/8**

## Accessory



## Accessory

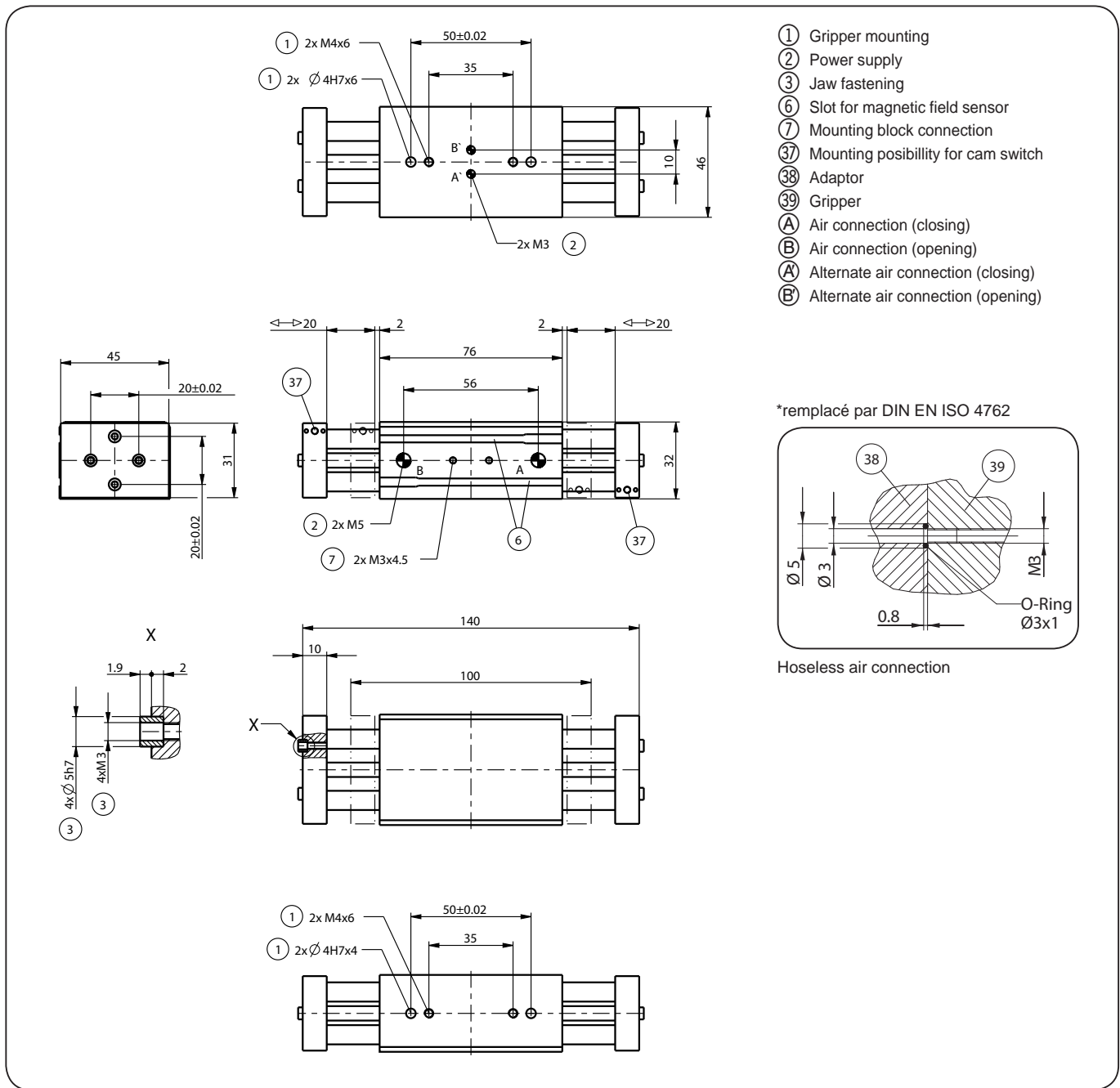


Subject to change without prior notice

<b>Order no.:</b>	<b>MGH8020</b>
Stroke per jaw [mm]:	20
Gripping force in closing [N]:	60
Gripping force in opening [N]:	90
Closing time / opening time [s]:	0,09 / 0,05
Repeatability +/- [mm]:	0,05
Operating pressure min. [bar]:	3
Operating pressure max. [bar]:	8
Operating temperature [°C]*:	5-80
Air volume per cycle [cm³]:	8
Weight [kg]:	0,500

All data measured at 6 bar

\* High-temperature-resistant model (up to 150°C) add T to part number



Subject to change without prior notice

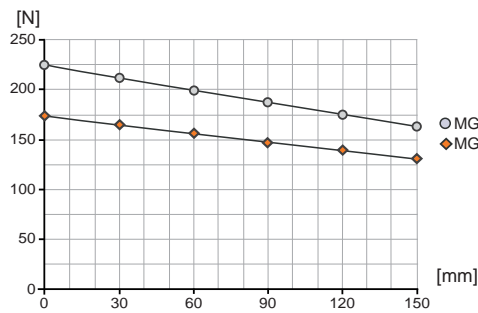
# 2-Jaw Parallel Grippers with Long Stroke



Picture shows MGH8110

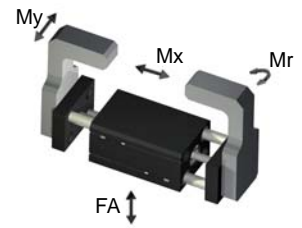
## Gripping force diagram

Gripping force as a function of jaw length.



## Forces and Moments

Max. allowable forces and moments on jaws.



Mr [Nm]:	20
Mx [Nm]:	20
My [Nm]:	18
Fa [N]:	435

### Included with purchase



Centring sleeve  
Order no.: **BDST40800**

### Recommended accessories



Adaptor Kit  
Order no.: **ANS0020**



Pneumatic fittings  
Order no.: **WVM5**



Proximity switch  
Order no.: **NJ8-E2S**



Magnetic field sensor  
Order no.: **MFS204KHC**

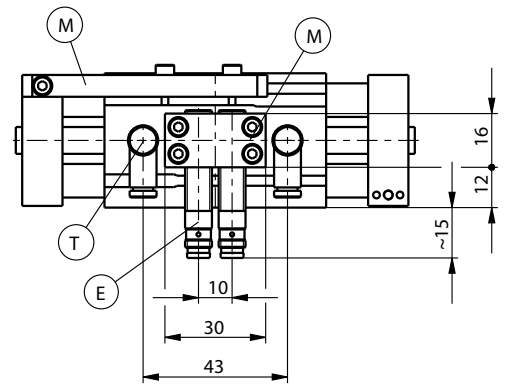
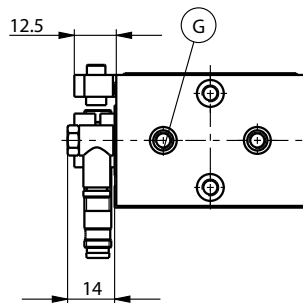


Magnetic field sensor  
Order no.: **MFS103KHC**

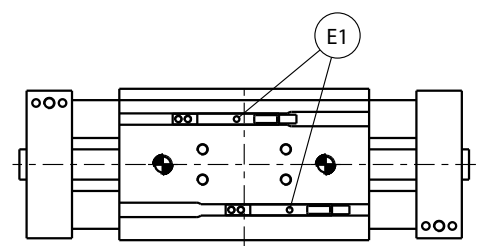
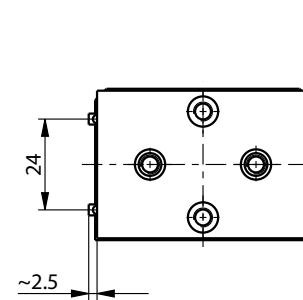


Pressure safety valve  
Order no.: **DSV1/8**

## Accessory



## Accessory

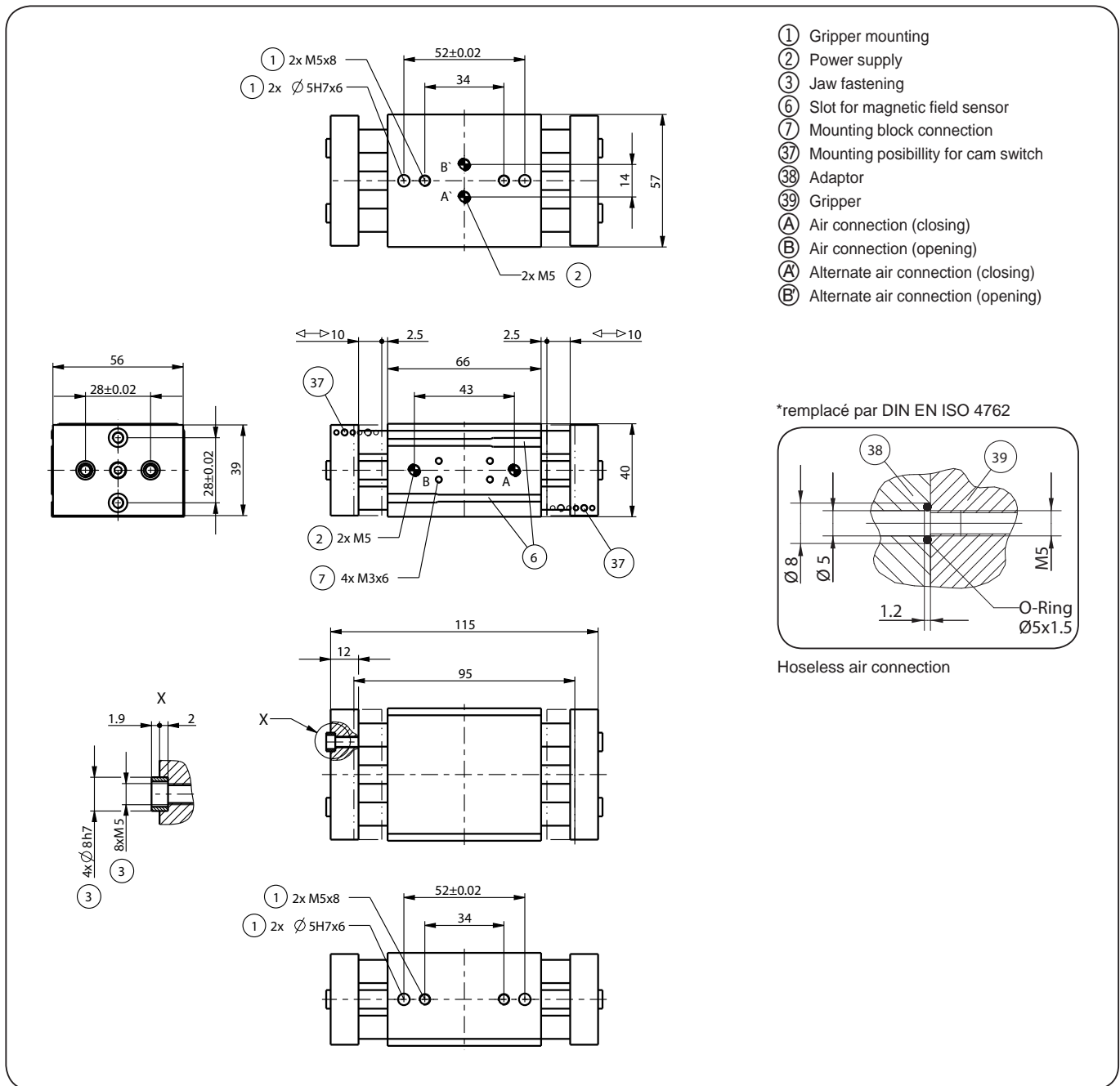


Subject to change without prior notice

<b>Order no.:</b>	<b>MGH8110</b>
Stroke per jaw [mm]:	10
Gripping force in closing [N]:	180
Gripping force in opening [N]:	220
Closing time / opening time [s]:	0,08 / 0,04
Repeatability +/- [mm]:	0,05
Operating pressure min. [bar]:	3
Operating pressure max. [bar]:	8
Operating temperature [°C]*:	5-80
Air volume per cycle [cm³]:	9,2
Weight [kg]:	0,700

All data measured at 6 bar

\* High-temperature-resistant model (up to 150°C) add T to part number



Subject to change without prior notice



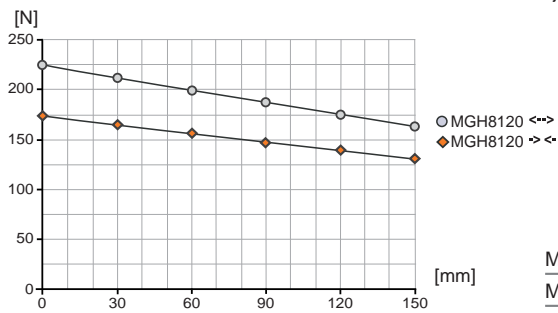
# 2-Jaw Parallel Grippers with Long Stroke



Picture shows MGH8120

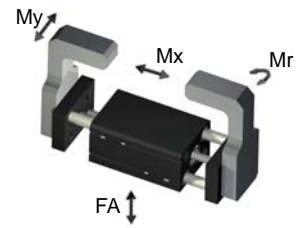
## Gripping force diagram

Gripping force as a function of jaw length.



## Forces and Moments

Max. allowable forces and moments on jaws.



Mr [Nm]:	20
Mx [Nm]:	20
My [Nm]:	18
Fa [N]:	435

### Included with purchase



Centring sleeve  
Order no.: **BDST40800**

### Recommended accessories



Adaptor Kit  
Order no.: **ANS0021**



Pneumatic fittings  
Order no.: **WVM5**



Proximity switch  
Order no.: **NJ8-E2S**



Magnetic field sensor  
Order no.: **MFS204KHC**

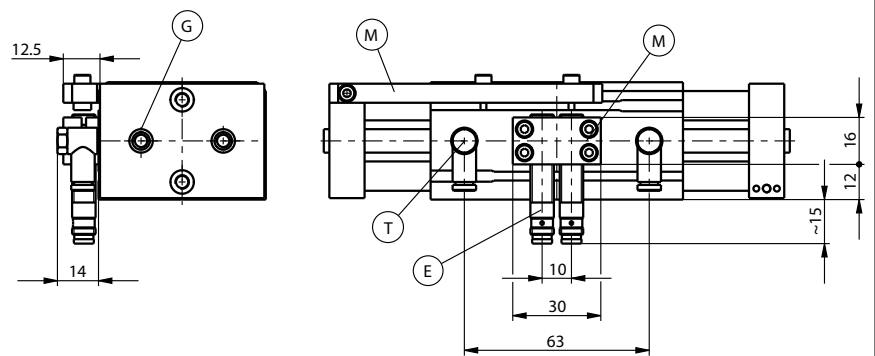


Magnetic field sensor  
Order no.: **MFS103KHC**

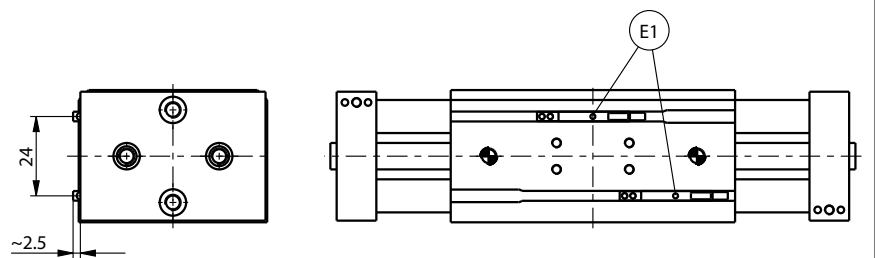


Pressure safety valve  
Order no.: **DSV1/8**

## Accessory



## Accessory

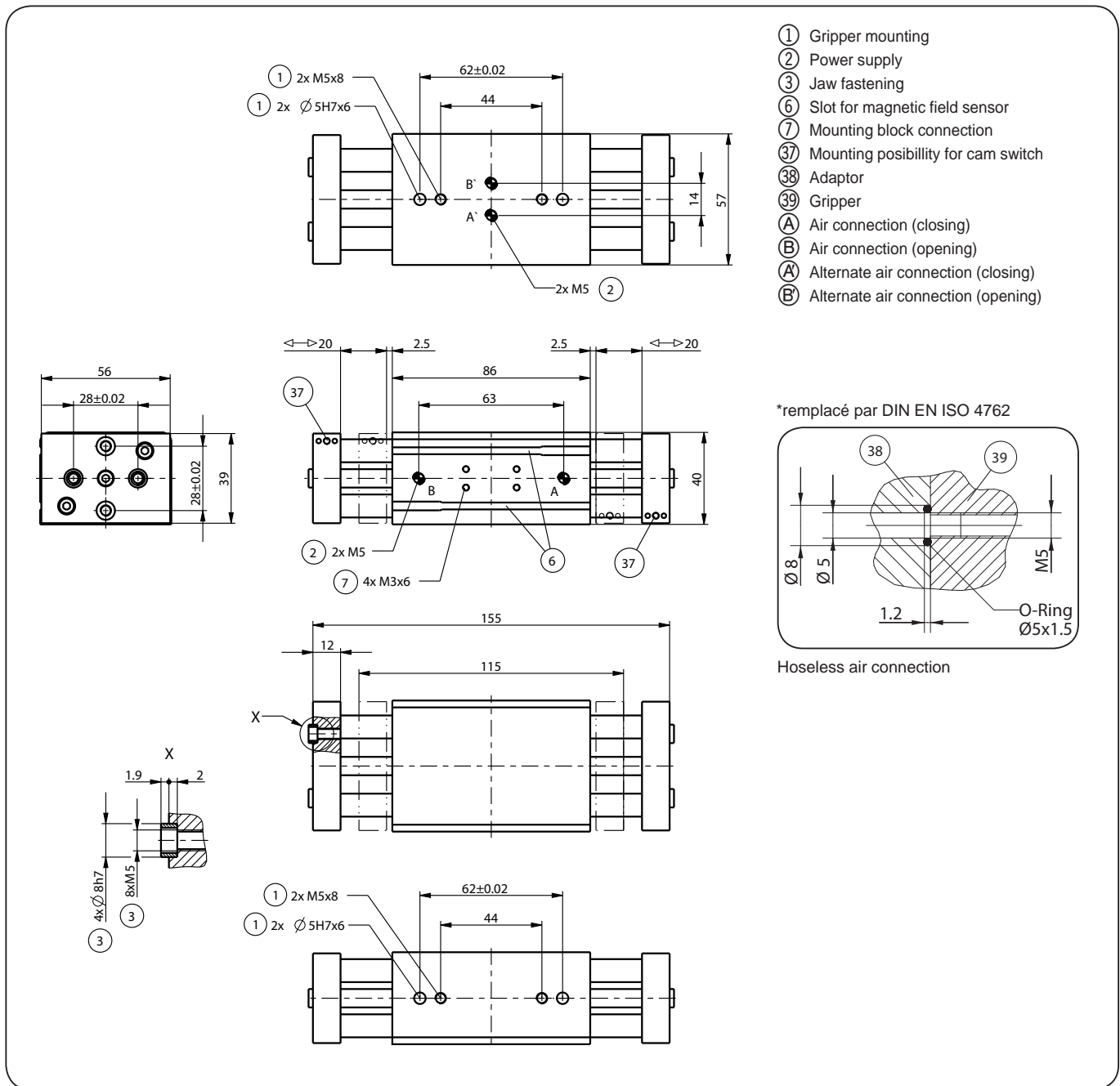


Subject to change without prior notice

<b>Order no.:</b>	<b>MGH8120</b>
Stroke per jaw [mm]:	20
Gripping force in closing [N]:	190
Gripping force in opening [N]:	220
Closing time / opening time [s]:	0,10 / 0,06
Repeatability +/- [mm]:	0,05
Operating pressure min. [bar]:	3
Operating pressure max. [bar]:	8
Operating temperature [°C]*:	5-80
Air volume per cycle [cm³]:	18,4
Weight [kg]:	0,850

All data measured at 6 bar

\* High-temperature-resistant model (up to 150°C) add T to part number



Subject to change without prior notice

# 2-Jaw Parallel Grippers with Long Stroke



Picture shows MGH8230

Included with purchase



Centring sleeve  
Order no.: **BDST41000**

Recommended accessories



Adaptor Kit  
Order no.: **ANS0022**



Pneumatic fittings  
Order no.: **WVM5**



Proximity switch  
Order no.: **NJ8-E2S**



Magnetic field sensor  
Order no.: **MFS204KHC**



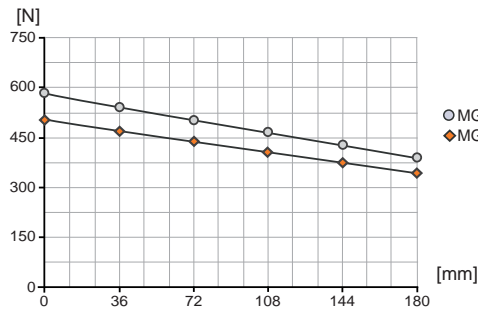
Magnetic field sensor  
Order no.: **MFS103KHC**



Pressure safety valve  
Order no.: **DSV1/8**

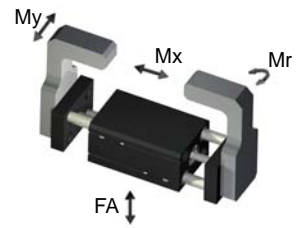
## Gripping force diagram

Gripping force as a function of jaw length.



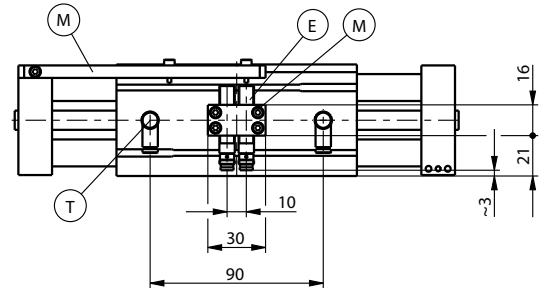
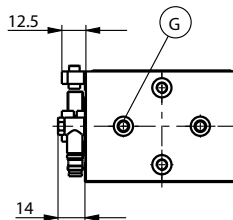
## Forces and Moments

Max. allowable forces and moments on jaws.

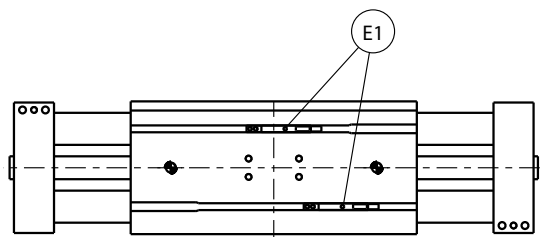
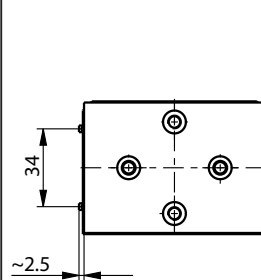


Mr [Nm]:	64
Mx [Nm]:	64
My [Nm]:	45
Fa [N]:	760

## Accessory



## Accessory

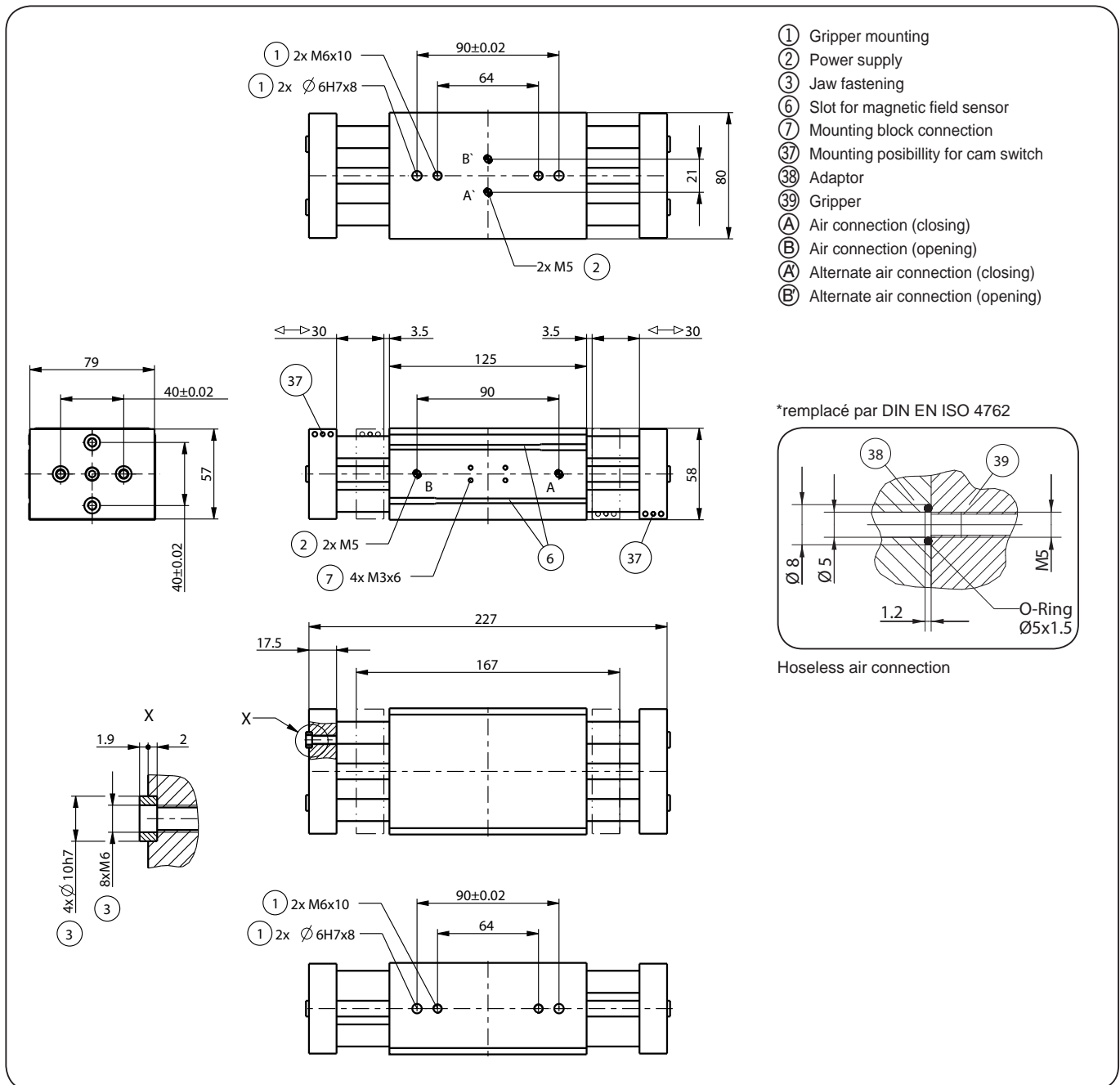


Subject to change without prior notice

<b>Order no.:</b>	<b>MGH8230</b>
Stroke per jaw [mm]:	30
Gripping force in closing [N]:	500
Gripping force in opening [N]:	570
Closing time / opening time [s]:	0,14 / 0,10
Repeatability +/- [mm]:	0,05
Operating pressure min. [bar]:	3
Operating pressure max. [bar]:	8
Operating temperature [°C]*:	5-80
Air volume per cycle [cm³]:	64
Weight [kg]:	2,400

All data measured at 6 bar

\* High-temperature-resistant model (up to 150°C) add T to part number



Subject to change without prior notice

# 2-Jaw Parallel Grippers with Long Stroke



Picture shows MGH8240

Included with purchase



Centring sleeve  
Order no.: **BDST41000**

Recommended accessories



Adaptor Kit  
Order no.: **ANS0023**



Pneumatic fittings  
Order no.: **WVM5**



Proximity switch  
Order no.: **NJ8-E2S**



Magnetic field sensor  
Order no.: **MFS204KHC**



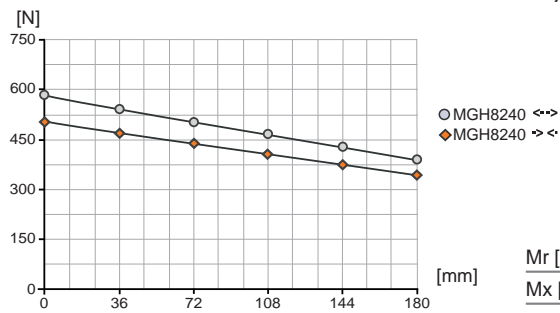
Magnetic field sensor  
Order no.: **MFS103KHC**



Pressure safety valve  
Order no.: **DSV1/8**

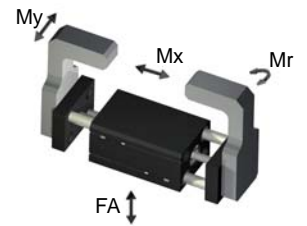
## Gripping force diagram

Gripping force as a function of jaw length.



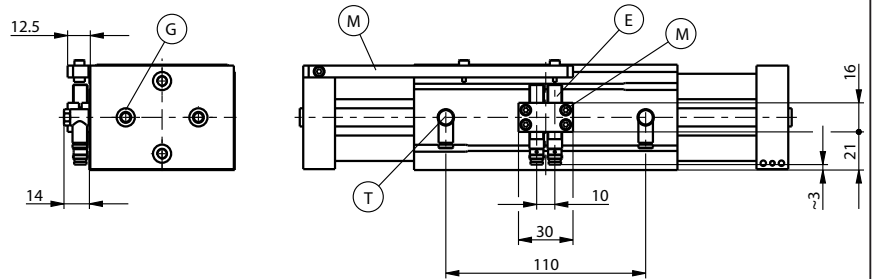
## Forces and Moments

Max. allowable forces and moments on jaws.

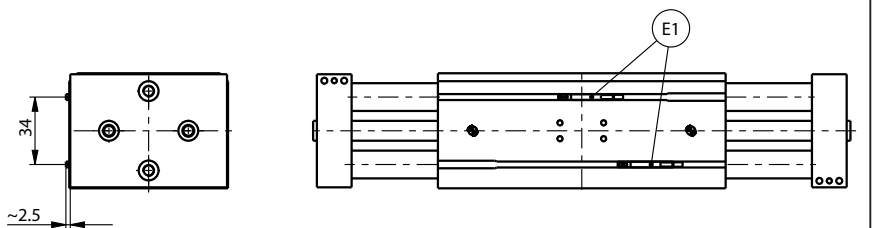


Mr [Nm]:	64
Mx [Nm]:	64
My [Nm]:	45
Fa [N]:	760

## Accessory



## Accessory

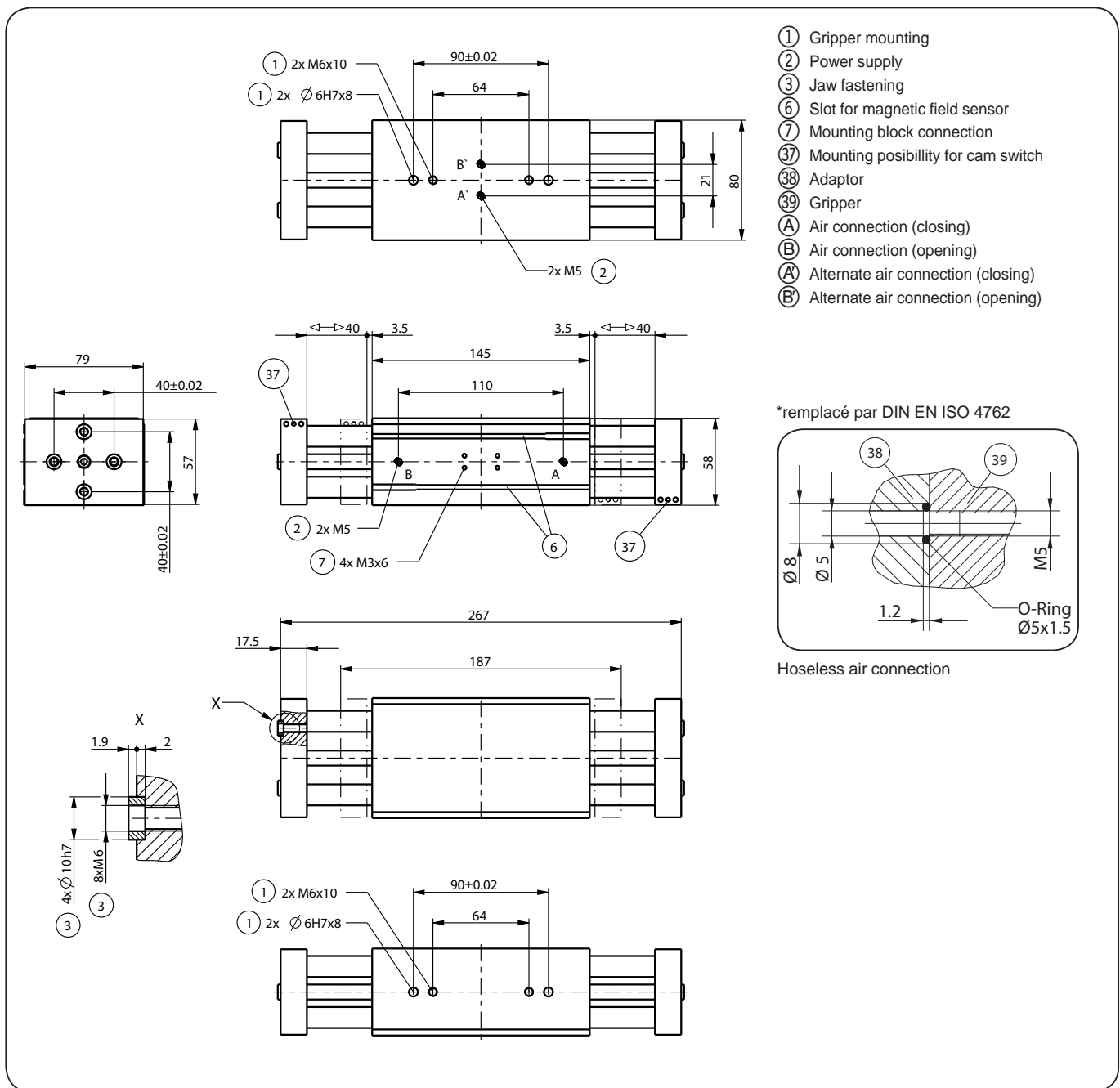


Subject to change without prior notice

<b>Order no.:</b>	<b>MGH8240</b>
Stroke per jaw [mm]:	40
Gripping force in closing [N]:	500
Gripping force in opening [N]:	570
Closing time / opening time [s]:	0,18 / 0,14
Repeatability +/- [mm]:	0,05
Operating pressure min. [bar]:	3
Operating pressure max. [bar]:	8
Operating temperature [°C]*:	5-80
Air volume per cycle [cm³]:	128
Weight [kg]:	2,900

All data measured at 6 bar

\* High-temperature-resistant model (up to 150°C) add T to part number



Subject to change without prior notice

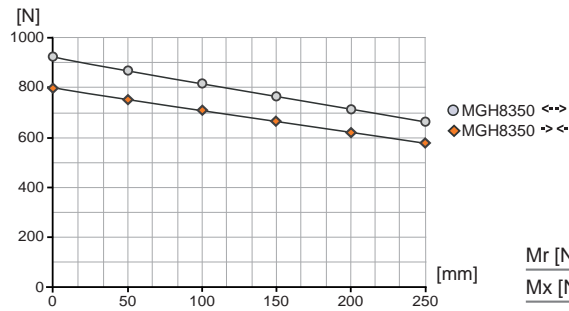
# 2-Jaw Parallel Grippers with Long Stroke



Picture shows MGH8350

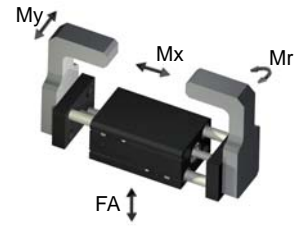
## Gripping force diagram

Gripping force as a function of jaw length.



## Forces and Moments

Max. allowable forces and moments on jaws.



Mr [Nm]:	130
Mx [Nm]:	130
My [Nm]:	98
Fa [N]:	1300

### Included with purchase



Centring sleeve  
Order no.: **BDST41600**

### Recommended accessories



Adaptor Kit  
Order no.: **ANS0024**



Pneumatic fittings  
Order no.: **WV1/8x6**



Proximity switch  
Order no.: **NJ8-E2S**



Magnetic field sensor  
Order no.: **MFS204KHC**

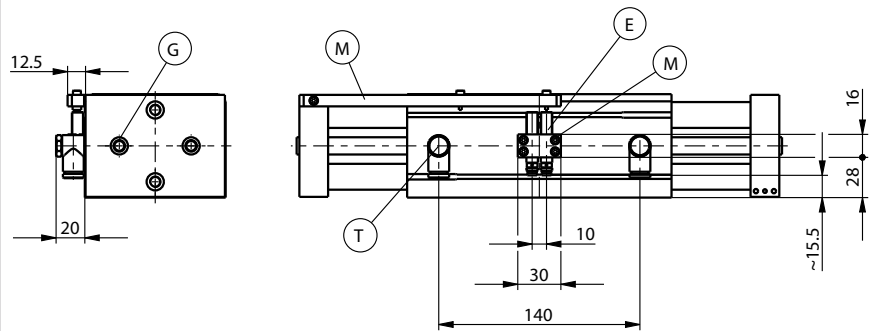


Magnetic field sensor  
Order no.: **MFS103KHC**

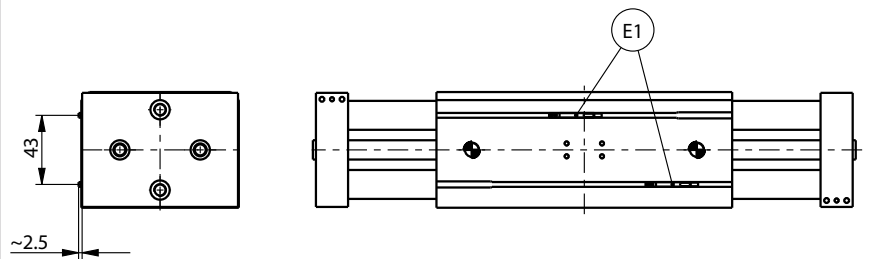


Pressure safety valve  
Order no.: **DSV1/8**

## Accessory



## Accessory

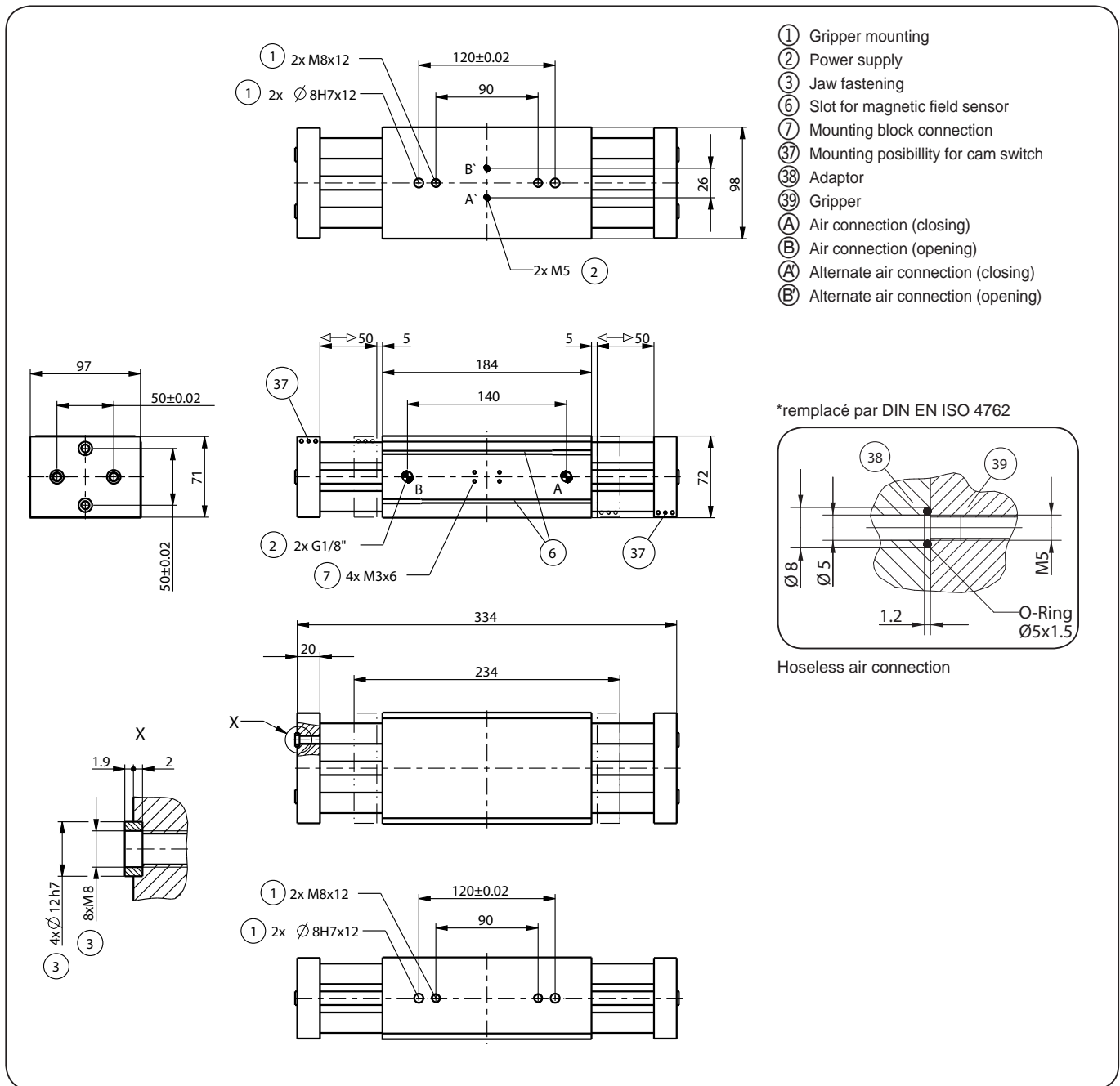


Subject to change without prior notice

<b>Order no.:</b>	<b>MGH8350</b>
Stroke per jaw [mm]:	50
Gripping force in closing [N]:	800
Gripping force in opening [N]:	910
Closing time / opening time [s]:	0.30 / 0.25
Repeatability +/- [mm]:	0.05
Operating pressure min. [bar]:	3
Operating pressure max. [bar]:	8
Operating temperature [°C]*:	5-80
Air volume per cycle [cm³]:	170
Weight [kg]:	5.1

All data measured at 6 bar

\* High-temperature-resistant model (up to 150°C) add T to part number



Subject to change without prior notice



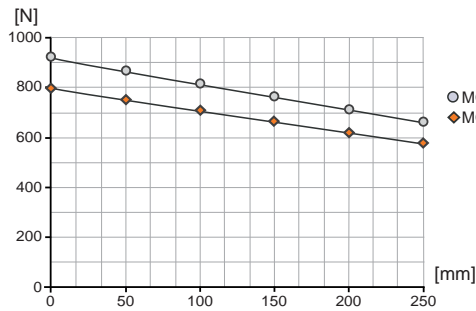
# 2-Jaw Parallel Grippers with Long Stroke



Picture shows MGH8375

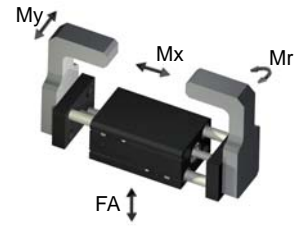
## Gripping force diagram

Gripping force as a function of jaw length.



## Forces and Moments

Max. allowable forces and moments on jaws.



Mr [Nm]:	130
Mx [Nm]:	130
My [Nm]:	98
Fa [N]:	1300

### Included with purchase



Centring sleeve  
Order no.: **BDST41600**

### Recommended accessories



Adaptor Kit  
Order no.: **ANS0025**



Pneumatic fittings  
Order no.: **WV1/8x6**



Proximity switch  
Order no.: **NJ8-E2S**



Magnetic field sensor  
Order no.: **MFS204KHC**

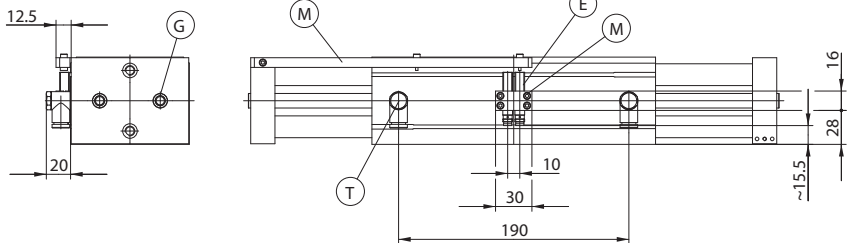


Magnetic field sensor  
Order no.: **MFS103KHC**

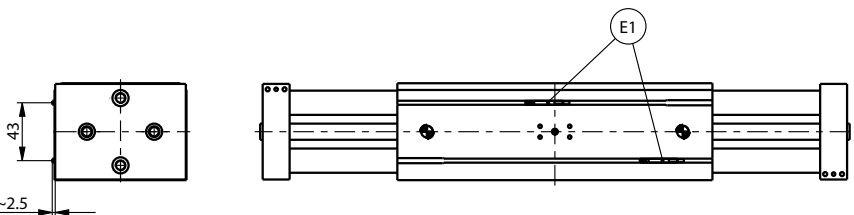


Pressure safety valve  
Order no.: **DSV1/8**

## Accessory



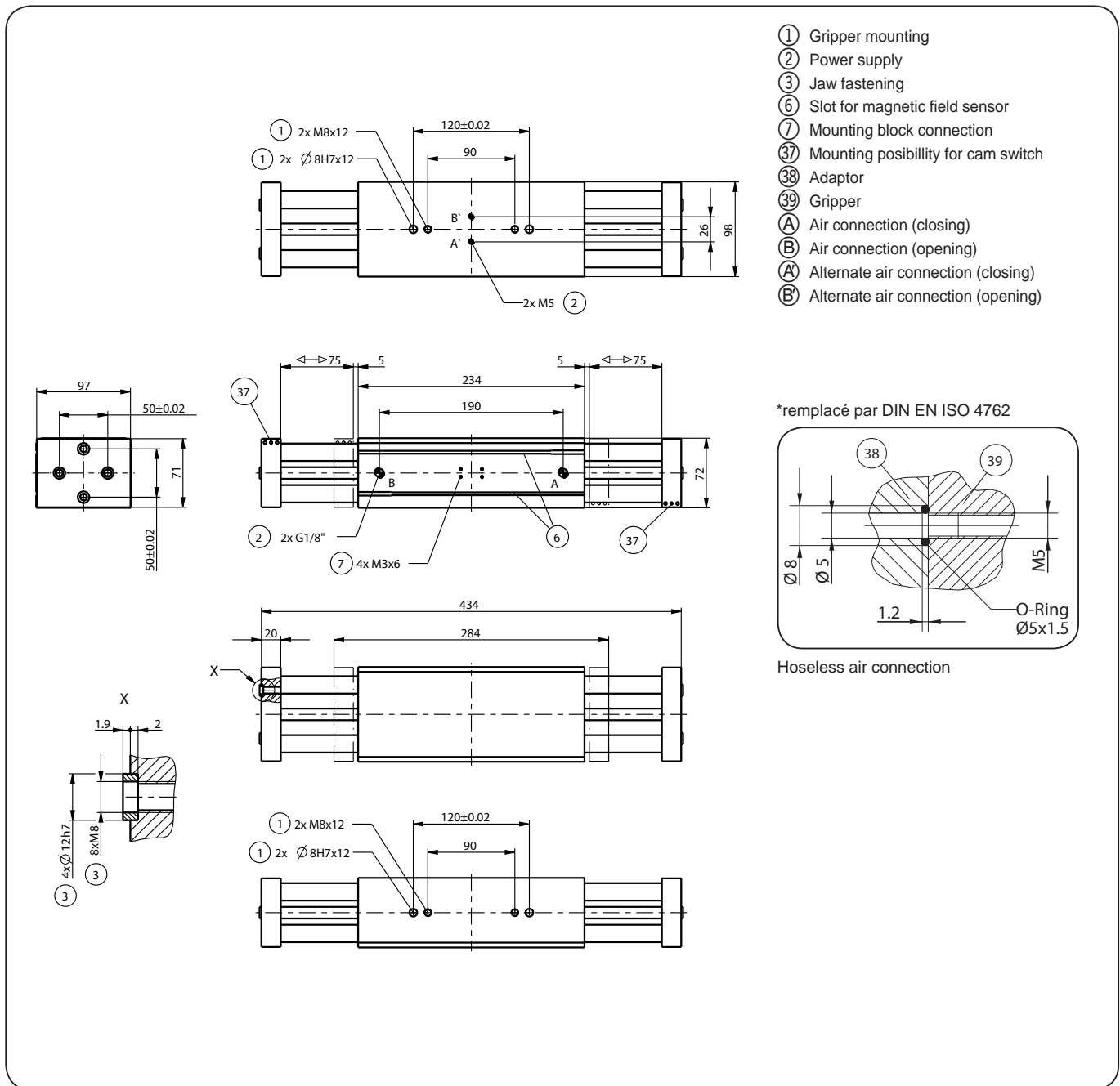
## Accessory



Subject to change without prior notice

<b>Order no.:</b>	<b>MGH8375</b>
Stroke per jaw [mm]:	75
Gripping force in closing [N]:	800
Gripping force in opening [N]:	910
Closing time / opening time [s]:	0.40 / 0.35
Repeatability +/- [mm]:	0.05
Operating pressure min. [bar]:	3
Operating pressure max. [bar]:	8
Operating temperature [°C]*:	5-80
Air volume per cycle [cm³]:	255
Weight [kg]:	6.2

All data measured at 6 bar



Subject to change without prior notice

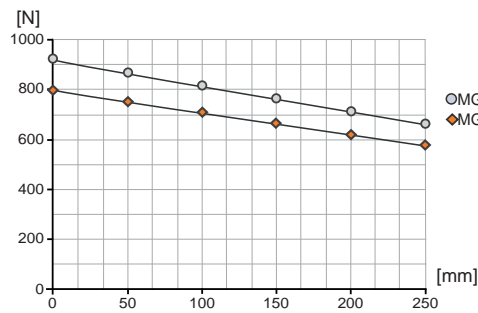
# 2-Jaw Parallel Grippers with Long Stroke



Picture shows MGH83100

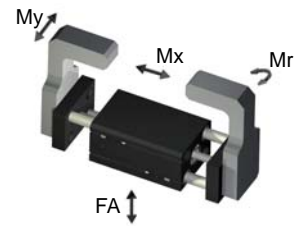
## Gripping force diagram

Gripping force as a function of jaw length.



## Forces and Moments

Max. allowable forces and moments on jaws.



Mr [Nm]:	130
Mx [Nm]:	130
My [Nm]:	98
Fa [N]:	1300

### Included with purchase



Centring sleeve  
Order no.: **BDST41600**

### Recommended accessories



Adaptor Kit  
Order no.: **ANS0026**



Pneumatic fittings  
Order no.: **WV1/8x6**



Proximity switch  
Order no.: **NJ8-E2S**



Magnetic field sensor  
Order no.: **MFS204KHC**

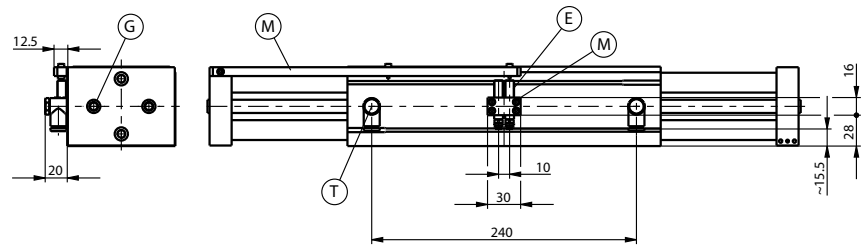


Magnetic field sensor  
Order no.: **MFS103KHC**

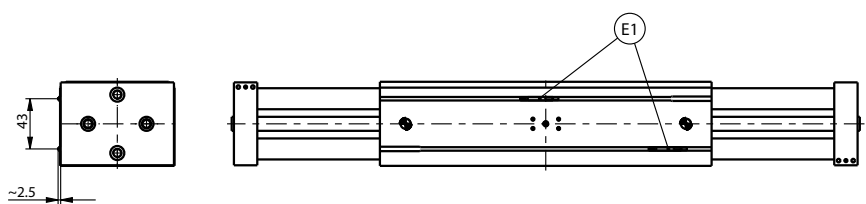


Pressure safety valve  
Order no.: **DSV1/8**

## Accessory



## Accessory

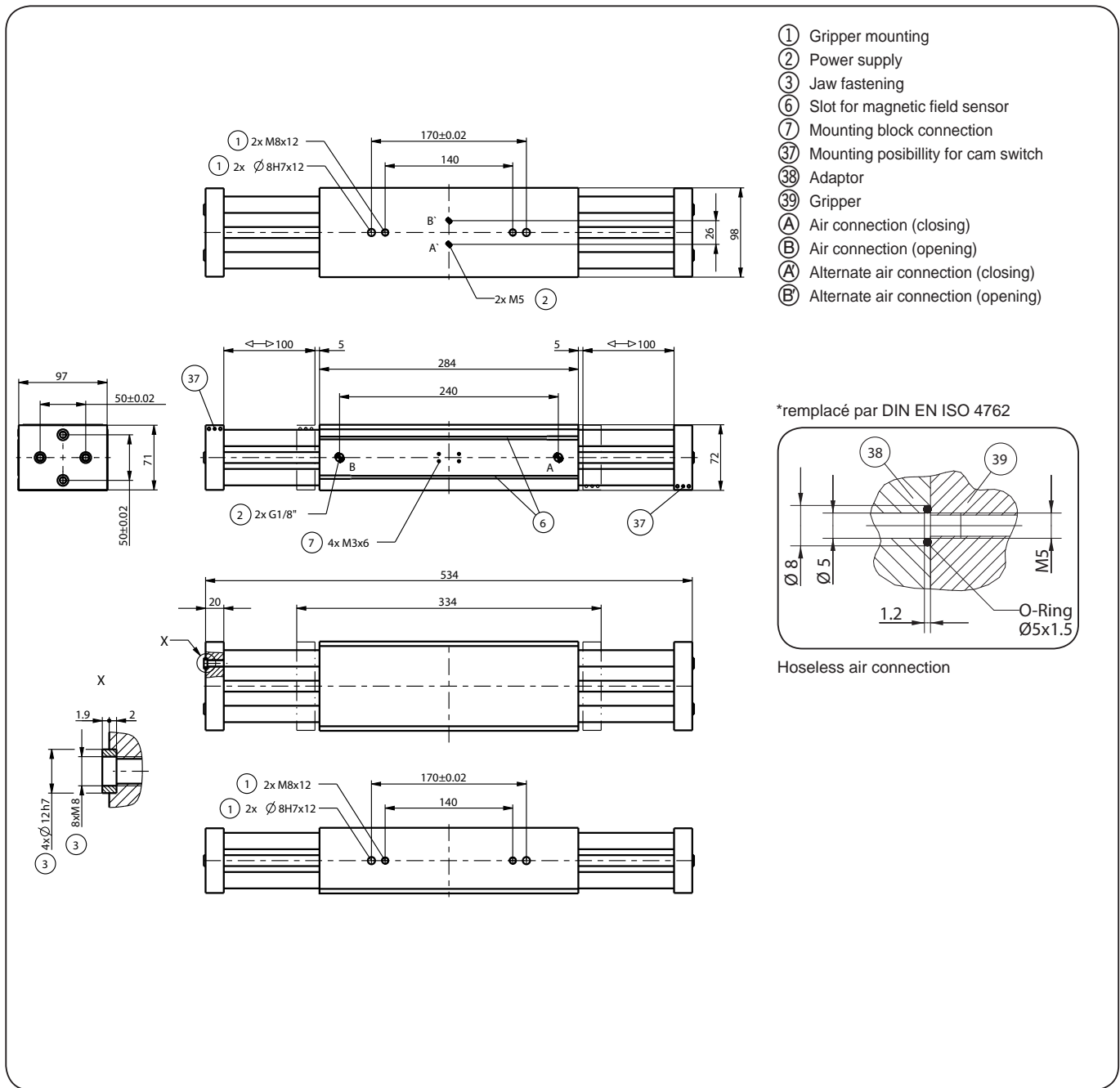


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<b>Order no.:</b>	<b>MGH83100</b>
Stroke per jaw [mm]:	100
Gripping force in closing [N]:	800
Gripping force in opening [N]:	910
Closing time / opening time [s]:	0.50 / 0.40
Repeatability +/- [mm]:	0.05
Operating pressure min. [bar]:	3
Operating pressure max. [bar]:	8
Operating temperature [°C]*:	5-80
Air volume per cycle [cm³]:	340
Weight [kg]:	7.3

All data measured at 6 bar

\* High-temperature-resistant model (up to 150°C) add T to part number



Subject to change without prior notice