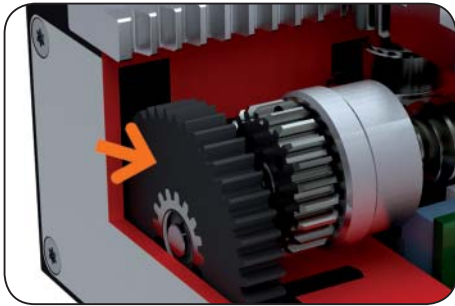


2-Jaw Parallel Grippers with Long Stroke

Highlights



Drive

DC Servo Motor with Encoder

in connection with rack and worm gear mechanism

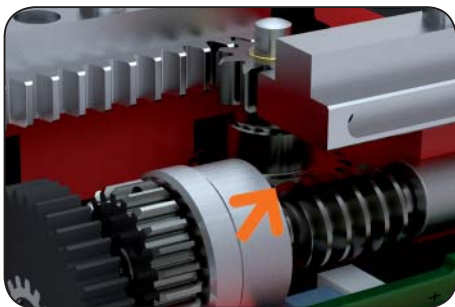
- high power in both opening and closing
- adjustable gripping force up to 2000 N
- programmable position
- data interface via Profibus, or other interface possible via Gateway



Guidance

Ground T-slot jaws made from hardened steel

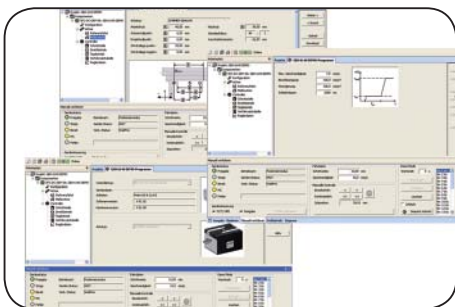
- T-slot guides for maximum force and moment tolerance
- side - by - side guides allow more compact overall size of gripper
- high precision, play free guides



Power Transfer

Helical Gear and worm mechanism

- optimal transmission of power to gripping force
- self centering
- high repeatability
- mechanically self locking in the event of power drop



Programming

simple, straightforward drive using the Firmware

- included in delivery of the motor controller
- position and speed regulation is possible



Terms

Gripping force:	the arithmetic sum of the individual forces occurring at the jaws
Repeatability:	at end stops after 50/100 consecutive cycles
Gripping force safety device:	mechanically over helical gear and worm mechanism
Cycle:	complete rotation of the motor forward and back to open and close the jaws
Maintenance:	recommended at 5 million cycles (please refer to operating manual for constraints available for download at: www.sommer-automatic.com) - low operating costs due to longer maintenance intervals - long lifespan

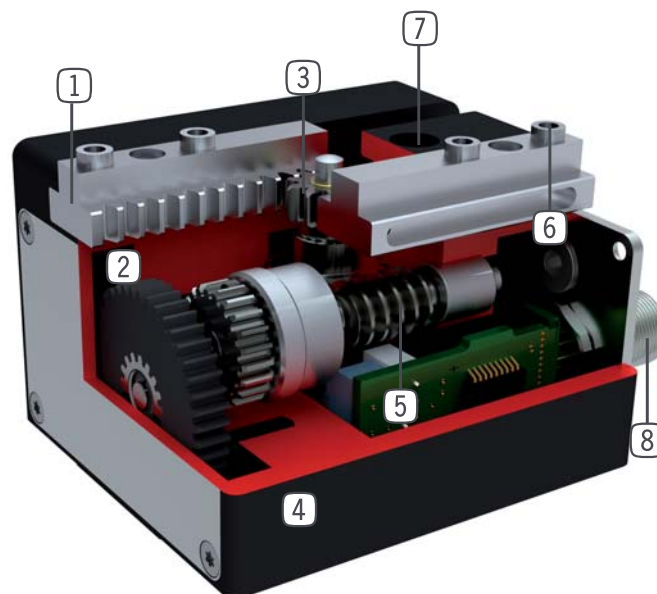
Design

- ① **Precise T-Slot guides**
- high forces and moments capacity

- ② **Drive**
- DC-Motor with encoder

- ⑤ **Helical worm gear**
- self locking in case of power drop

- ⑥ **Removable centering sleeves**
- quick and cost-effective gripper finger positioning



- ③ **Rack and pinion gear**
- synchronized movement of the gripper jaws
- high power transfer

- ④ **Robust, lightweight housing**
- hard coated aluminium alloy

- ⑦ **Mounting and positioning**
- mounting possible from several sides for versatile positioning

- ⑧ **Energy Supply**
- standardized connector

2-Jaw Parallel Grippers with Long Stroke



Picture shows GEH6030

Included with purchase



Centring sleeve
Order no.: **BDST40400**

Recommended accessories



Motor Controller
Order no.: see page 19



Profibus connection
Order no.: see page 18



Programming cable
Order no.: **CLTG00065**



Feeder
Order no.: see page 18



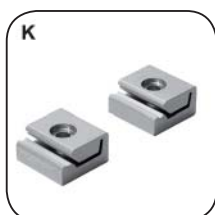
Motor Cable
Order no.: see page 18



Universal jaw set
Order no.: **UB6000-B**



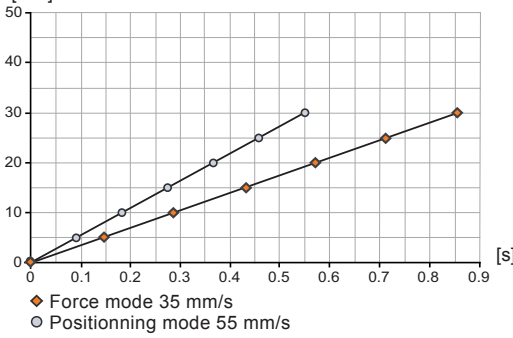
Centering Disc
Order no.: **ZE12H7x4**



Middle bracket
Order no.: **CLTG00121**

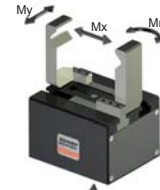
Speed - Time diagram

Closing and Opening time as a function of Gripper jaw speed [mm]



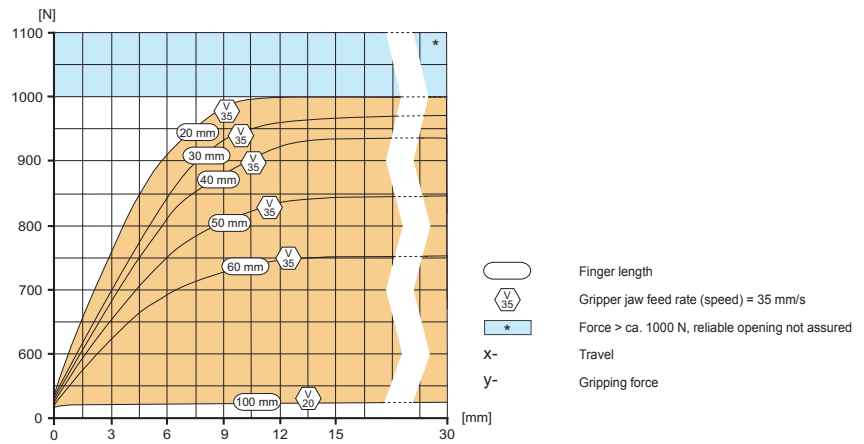
Forces and Moments

Max allowable forces and moments on jaws

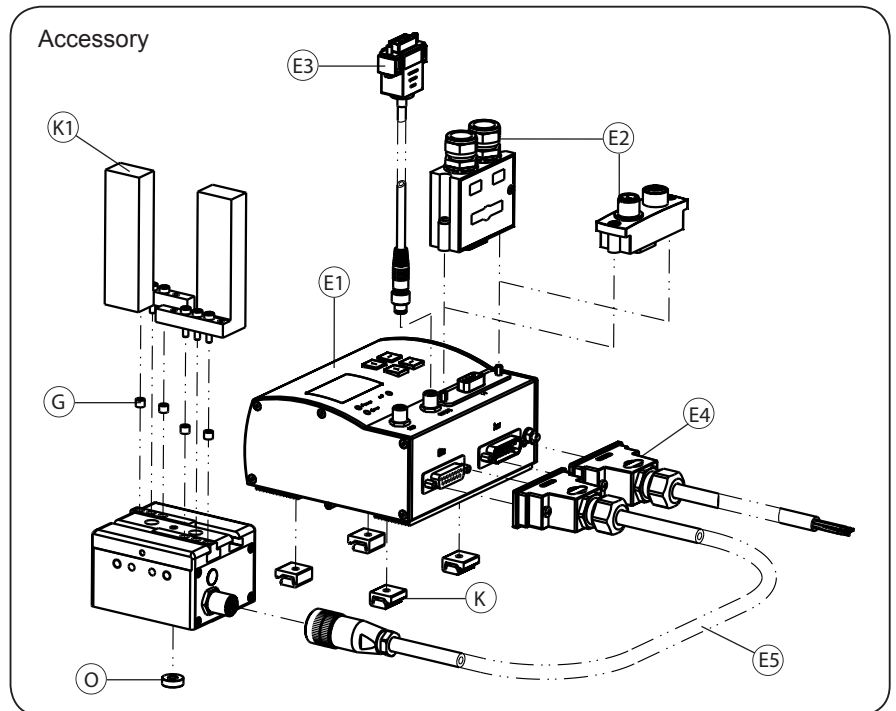


Mr [Nm]:	25
Mx [Nm]:	25
My [Nm]:	25
Fa [N]:	500

Gripping force diagram

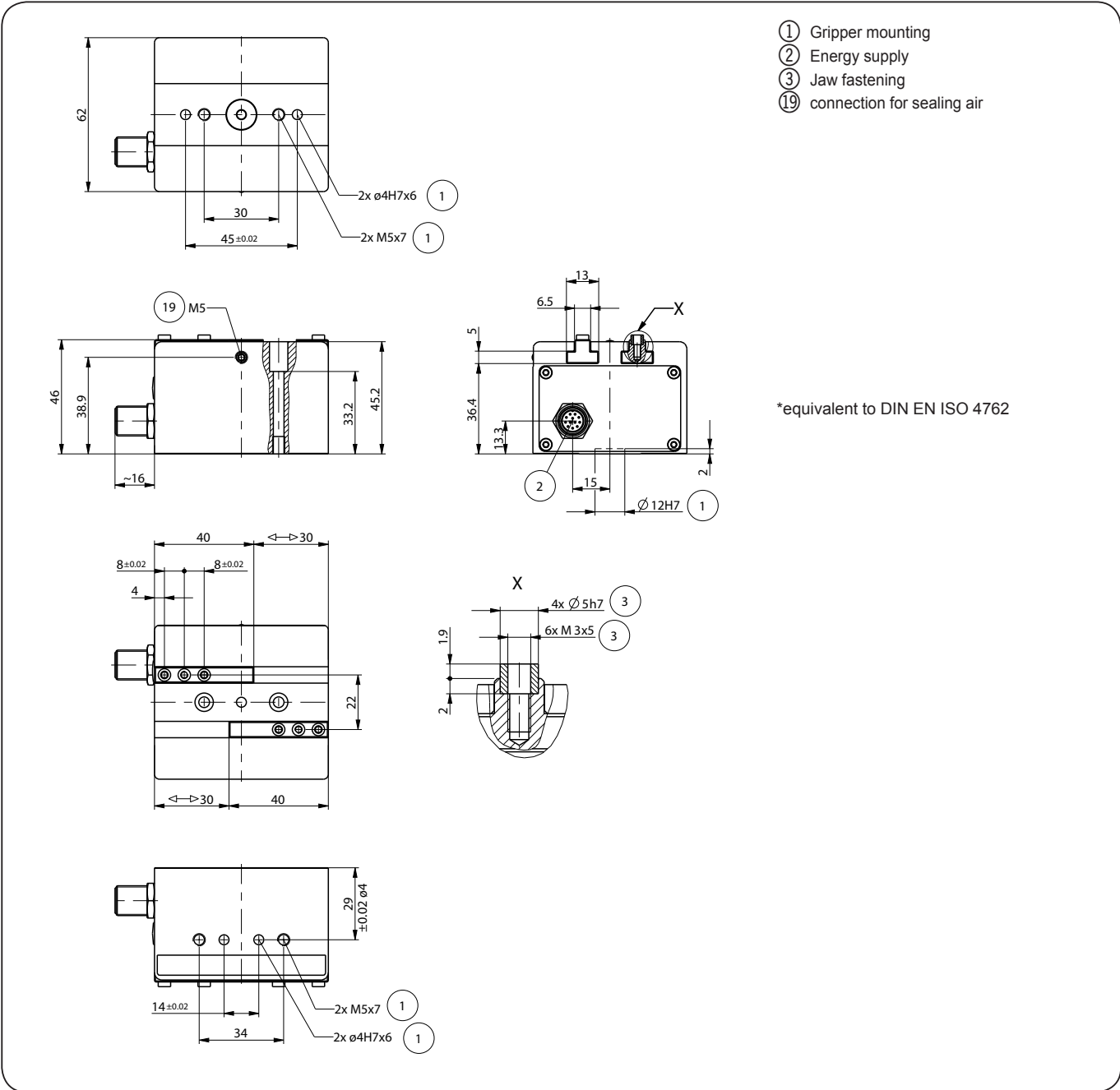


Accessory



Subject to change without prior notice

Order no.:	GEH6030
Drive:	DC-Motor with Encoder
Stroke per jaw, adjustable [mm]:	0 ... 30
Retention force max. [N]:	1000
Power output:	Helical gear and worm gear
weight per jaw max [kg]:	0.3
jaw speed in force mode max. [mm/s]:	35
jaw speed in positioning mode max. [mm/s]:	55
Repeatability +/- [mm]:	0.05
Operating temperature [°C]:	5-80
Protection Classification:	IP40
Weight [kg]:	0.7



Subject to change without prior notice

2-Jaw Parallel Grippers with Long Stroke



Picture shows GEH6060

Included with purchase



Centring sleeve
Order no.: **BDST40400**

Recommended accessories



Motor Controller
Order no.: **see page 19**



Profibus connection
Order no.: **see page 18**



Programming cable
Order no.: **CLTG00065**



Feeder
Order no.: **see page 18**



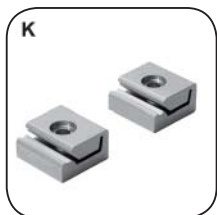
Motor Cable
Order no.: **see page 18**



Universal jaw set
Order no.: **UB6000-B**

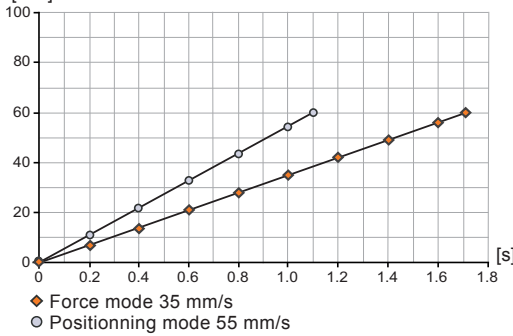


Centering Disc
Order no.: **ZE12H7x4**



Middle bracket
Order no.: **CLTG00121**

Speed - Time diagram
Closing and Opening time as a function of Gripper jaw speed [mm]



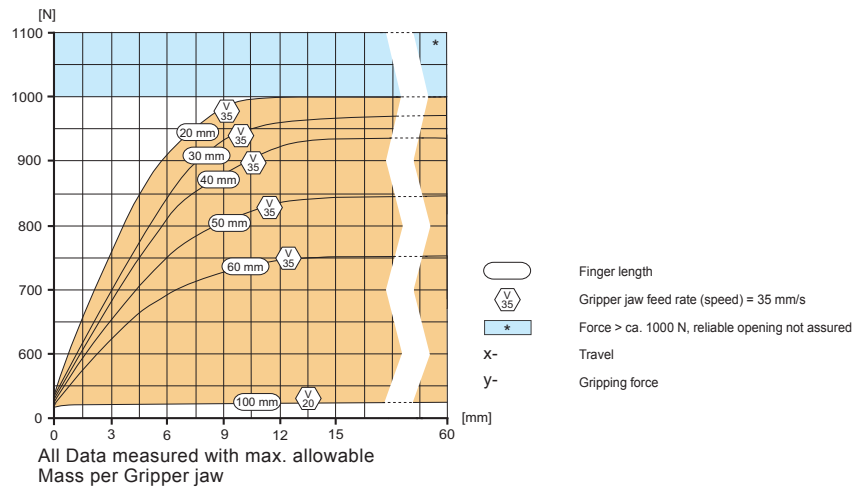
Forces and Moments

Max allowable forces and moments on jaws

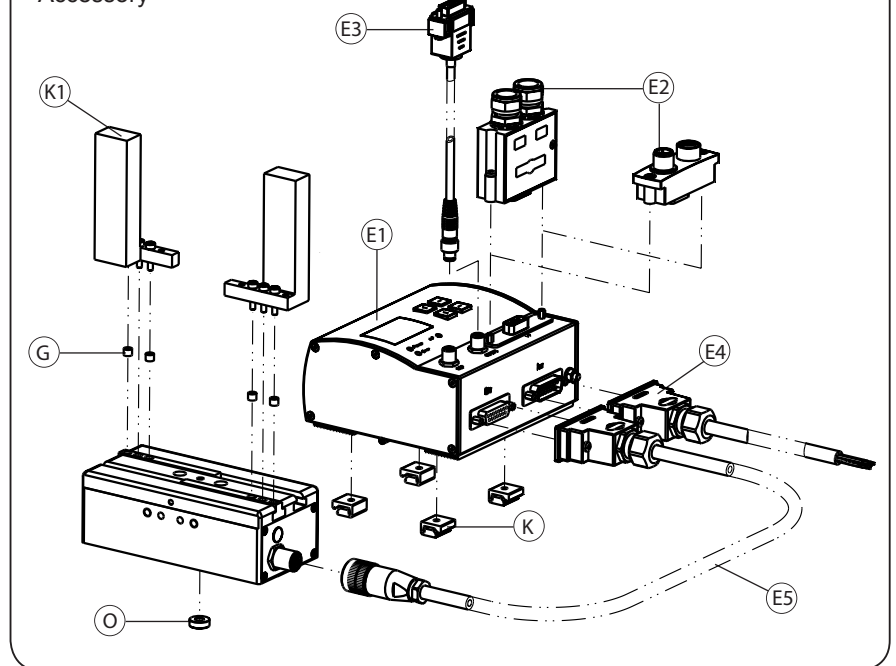


Mr [Nm]:	35
Mx [Nm]:	35
My [Nm]:	35
Fa [N]:	500

Gripping force diagram

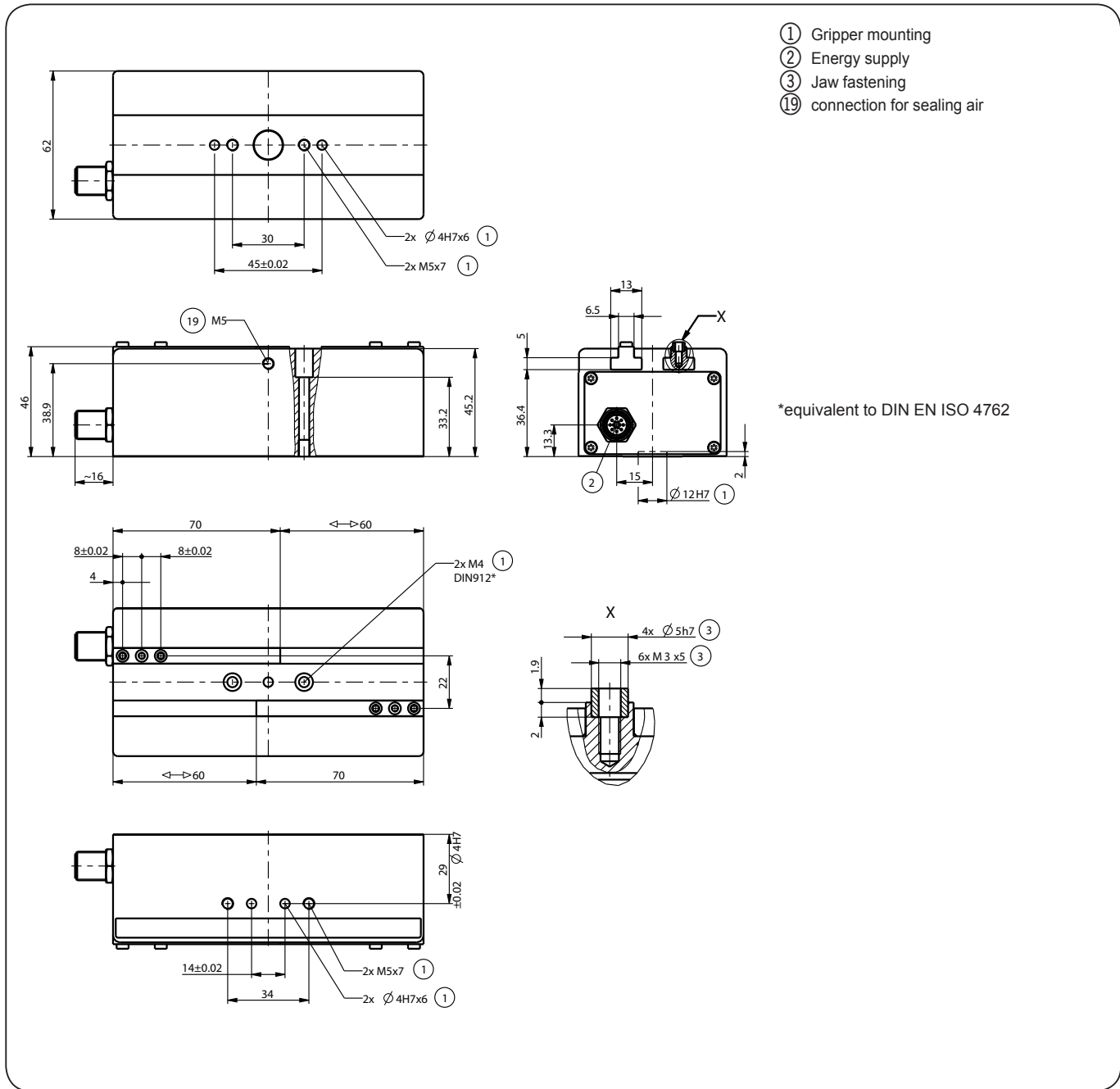


Accessory



Subject to change without prior notice

Order no.:	GEH6060
Drive:	DC-Motor with Encoder
Stroke per jaw, adjustable [mm]:	0 ... 60
Retention force max. [N]:	1000
Power output:	Helical gear and worm gear
weight per jaw max [kg]:	0.3
jaw speed in force mode max. [mm/s]:	35
jaw speed in positioning mode max. [mm/s]:	55
Repeatability +/- [mm]:	0.05
Operating temperature [°C]:	5-80
Protection Classification:	IP40
Weight [kg]:	0.9



Subject to change without prior notice

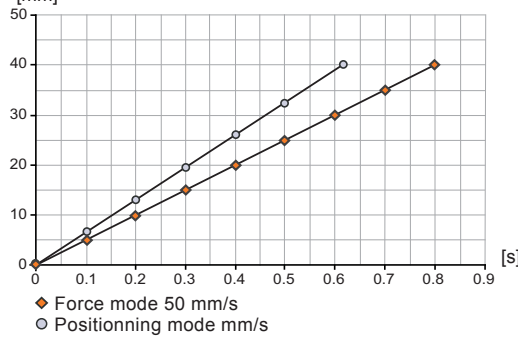
2-Jaw Parallel Grippers with Long Stroke



Picture shows GEH6140

Speed - Time diagram

Closing and Opening time as a function of Gripper jaw speed [mm]



Forces and Moments

Max allowable forces and moments on jaws



Mr [Nm]:	70
Mx [Nm]:	80
My [Nm]:	60
Fa [N]:	1500

Included with purchase



Centring sleeve
Order no.: **BDST70000**

Recommended accessories



Motor Controller
Order no.: **see page 19**



Profibus connection
Order no.: **see page 18**



Programming cable
Order no.: **CLTG00065**



Feeder
Order no.: **see page 18**



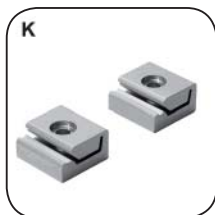
Motor Cable
Order no.: **see page 18**



Universal jaw set
Order no.: **UB6100-B**

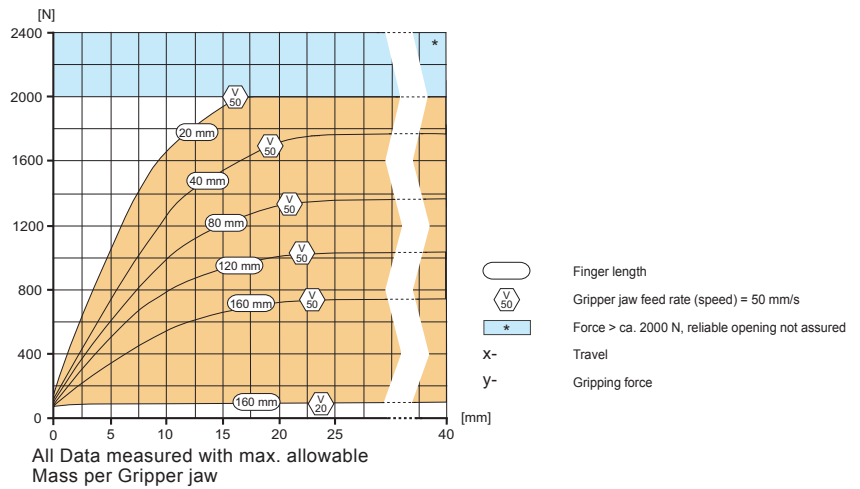


Centering Disc
Order no.: **ZE25H7x6**

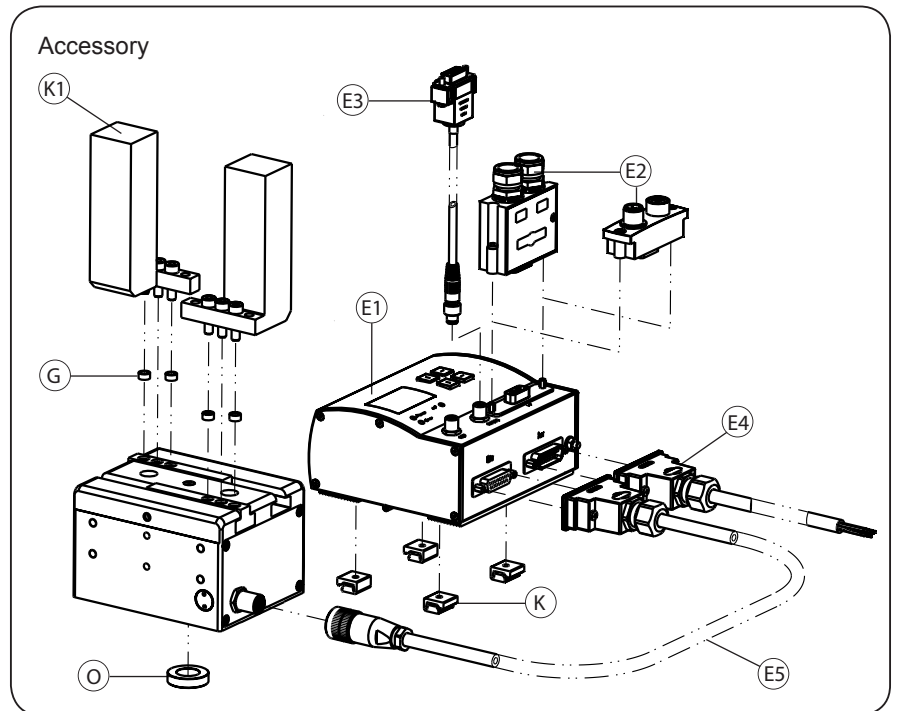


Middle bracket
Order no.: **CLTG00121**

Gripping force diagram

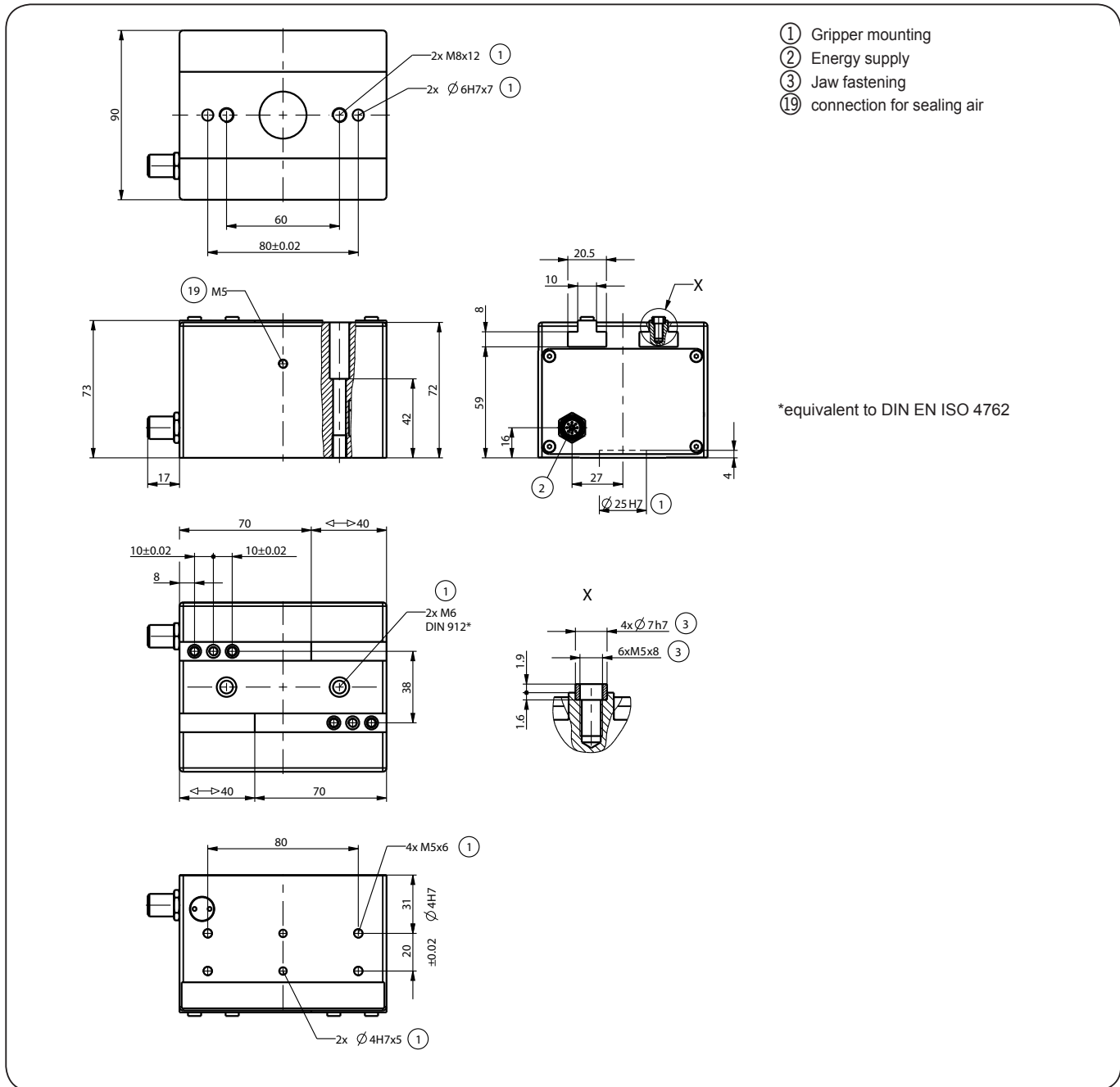


Accessory



Subject to change without prior notice

Order no.:	GEH6140
Drive:	DC-Motor with Encoder
Stroke per jaw, adjustable [mm]:	0 ... 40
Retention force max. [N]:	2000
Power output:	Helical gear and worm gear
weight per jaw max [kg]:	1
jaw speed in force mode max. [mm/s]:	50
jaw speed in positioning mode max. [mm/s]:	65
Repeatability +/- [mm]:	0.05
Operating temperature [°C]:	5-80
Protection Classification:	IP64
Weight [kg]:	1.8



Subject to change without prior notice

2-Jaw Parallel Grippers with Long Stroke



Picture shows GEH6180

Included with purchase



Centring sleeve
Order no.: **BDST70000**

Recommended accessories



Motor Controller
Order no.: **see page 19**



Profibus connection
Order no.: **see page 18**



Programming cable
Order no.: **CLTG00065**



Feeder
Order no.: **see page 18**



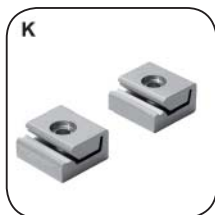
Motor Cable
Order no.: **see page 18**



Universal jaw set
Order no.: **UB6100-B**



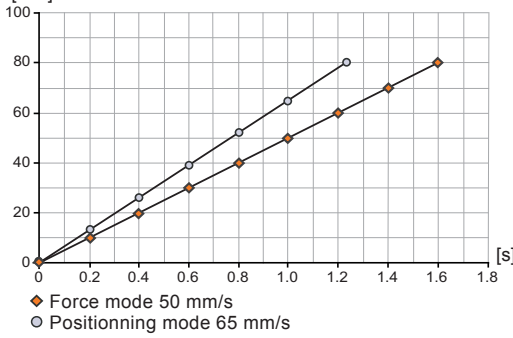
Centering Disc
Order no.: **ZE25H7x6**



Middle bracket
Order no.: **CLTG00121**

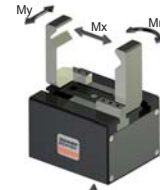
Speed - Time diagram

Closing and Opening time as a function of Gripper jaw speed [mm]



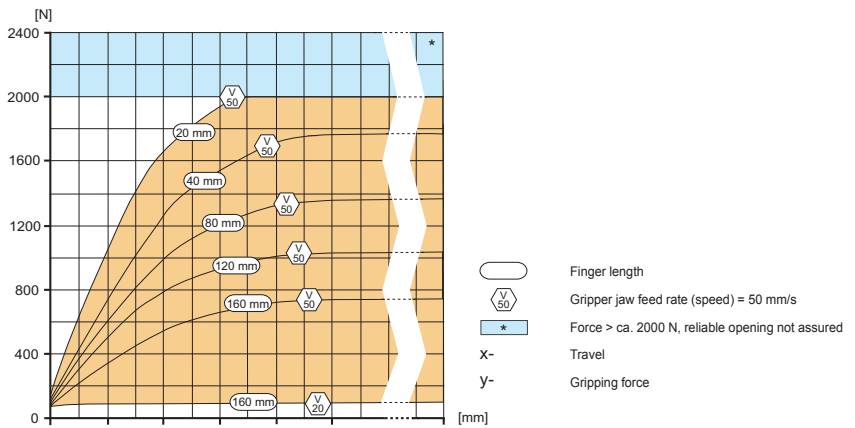
Forces and Moments

Max allowable forces and moments on jaws

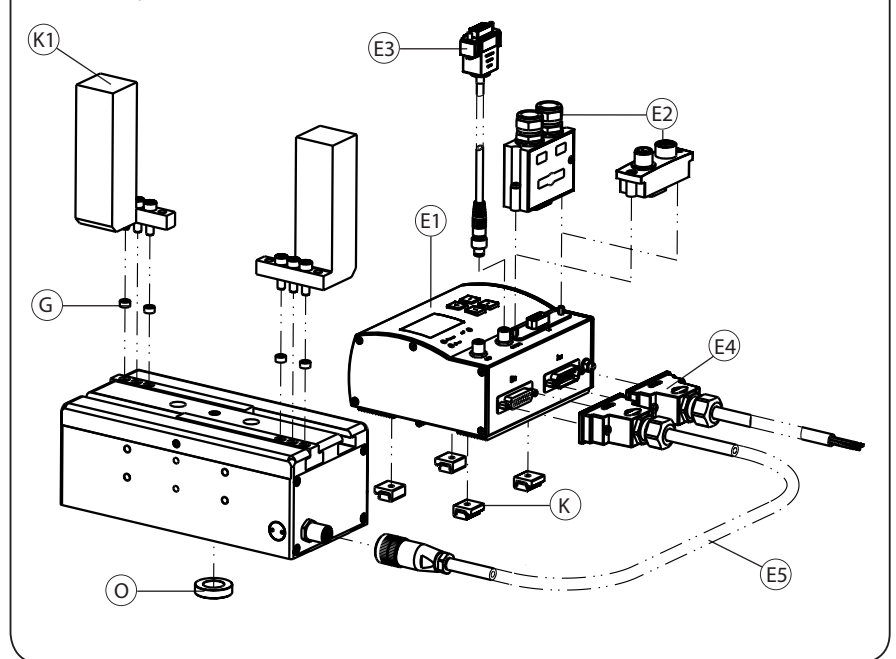


Mr [Nm]:	100
Mx [Nm]:	140
My [Nm]:	90
Fa [N]:	1500

Gripping force diagram

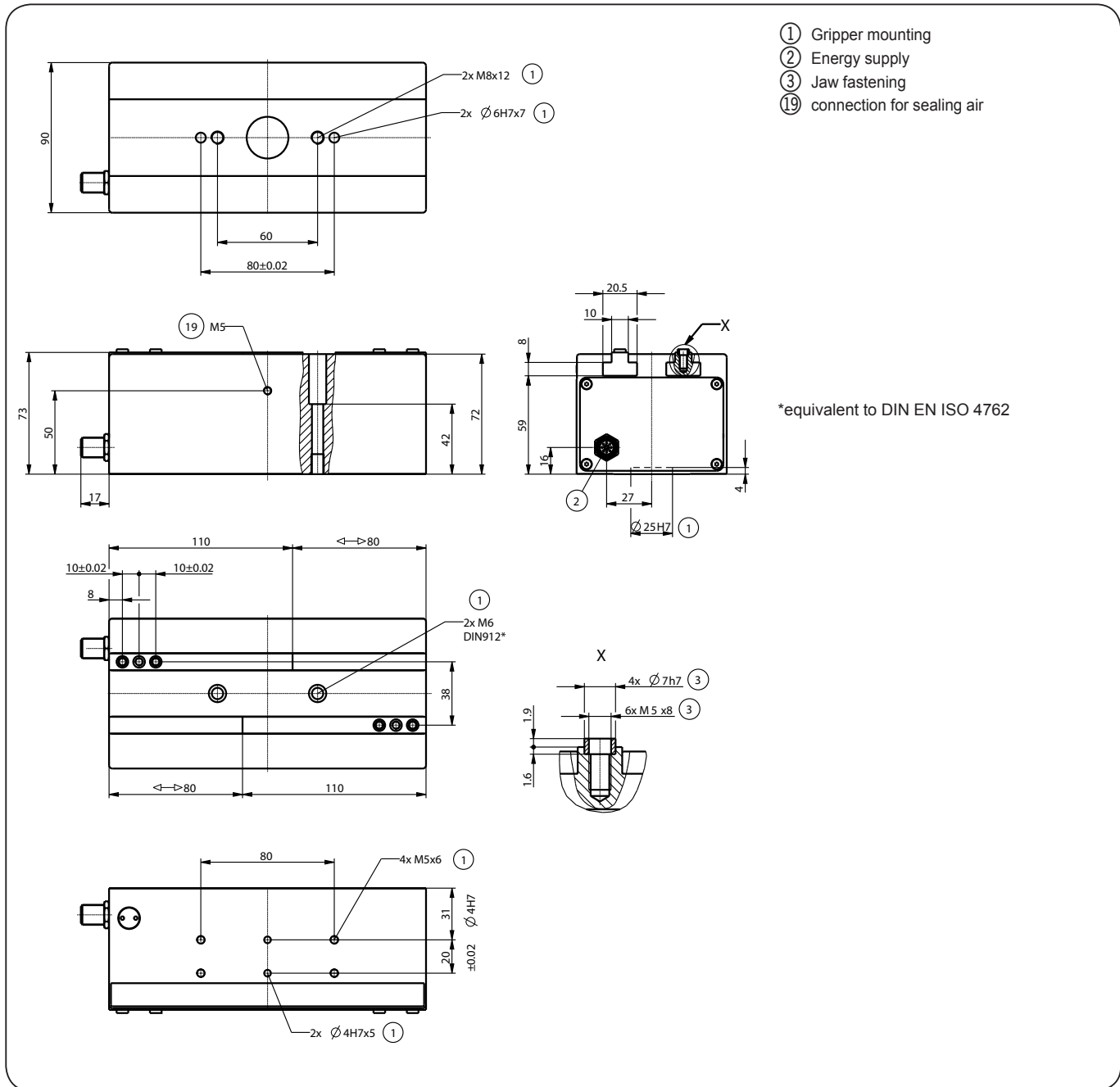


Accessory



Subject to change without prior notice

Order no.:	GEH6180
Drive:	DC-Motor with Encoder
Stroke per jaw, adjustable [mm]:	0 ... 80
Retention force max. [N]:	2000
Power output:	Helical gear and worm gear
weight per jaw max [kg]:	1
jaw speed in force mode max. [mm/s]:	50
jaw speed in positioning mode max. [mm/s]:	65
Repeatability +/- [mm]:	0.05
Operating temperature [°C]:	5-80
Protection Classification:	IP64
Weight [kg]:	2.6



Subject to change without prior notice

Motor Controller

Accessory



Order no.	CSTE00033	CSTE00292
Interface	Profibus	Can Open, DeviceNet
Protection class	IP 65	IP 65
Bus terminal resistor	integrated	integrated
Electrical connection	adaptable/tailor able	adaptable/tailor able



Order no.	CSTE00044	CSTE00293
Interface	Profibus	CanOpen, DeviceNet
Protection class	IP 65	IP 65
Bus terminal resistor	has to be connected externally	
Electrical connection	5-pole plug / bush	5-pole plug / bush



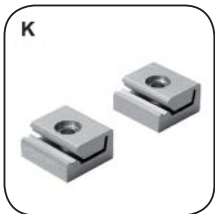
Order no.	CLTG00065
Category of usage	programming cable, for connection of load and logic supply
Lenght [m]	2,5



Order no.	CLTG00117	CLTG00057	CLTG00118
Category of usage	supply cable, for connection of load and logic supply		
Lenght [m]	2,5	5	10



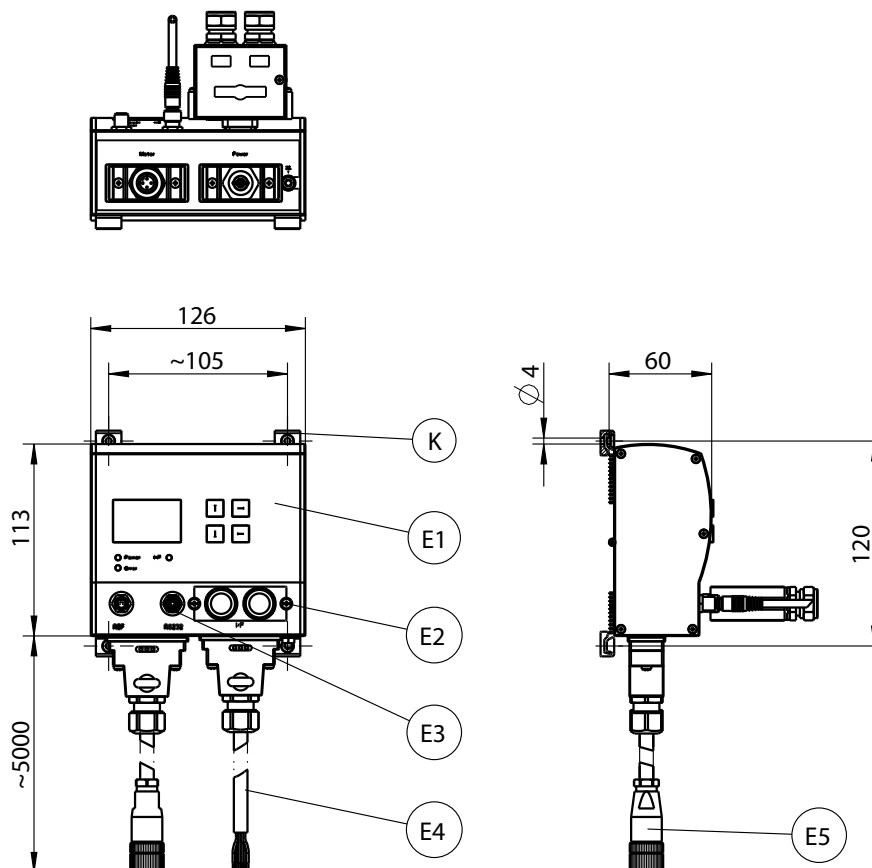
Order no.	CLTG00119	CLTG00060	CLTG00120
Category of usage	motor cable, for connection of motor and controller		
Lenght [m]	2,5	5	10



Order no.	CLTG00121
Category of usage	fixture of the motorcontroller CREG...
Packing unit [piece]	2



Order no.:	CREG00018	CREG00019	CREG00020
General data:			
Position transmitter:	Encoder	Encoder	Encoder
Encoder input:	RS485/RS422, A/B signal with index impulse		
Display:	interface with full text display by graphic LCD- display (128 x 64 Pixel)		
Operation elements:	4 key	4 key	4 key
Interface:	Profibus DP	CanOpen	DeviceNet
Communication profile:	Step 7	DS301;DSP402	Device Type 0Ch
Max. field bus transfer rate [Mbit/s]:	12	1	0,5
Fixing:	cap rail, wall or face holder		
Product weight [g]:	600	600	600
Electrical data:			
General			
Effective power [W]:	75	75	75
Parameterizing interface:	RS232;9600 Baud	RS232;9600 Baud	RS232;9600 Baud
Logic supply			
Nominal voltage [V DC]:	24 +/- 10%	24 +/- 10%	24 +/- 10%
Nominal current [A]:	3	3	3
Surge current [A]:	5	5	5
Load supply			
Nominal voltage [V DC]:	24 +/- 10%	24 +/- 10%	24 +/- 10%
Nominal current [A]:	0,1	0,1	0,1
Surge current [A]:	0,8	0,8	0,8
Operating and environmental conditions:			
Monitoring I ² t:	ja	ja	ja
Monitoring of current:	ja	ja	ja
Power failure detection:	ja	ja	ja
Outourning error monitoring:	ja	ja	ja
Detection of final position via software:	ja	ja	ja
Operating temperature min./max. [°C]:	0/40	0/40	0/40
Protection class:	IP54	IP54	IP54



Subject to change without prior notice