

Electronically Controlled Pneumatic Pincer Oetiker ELK 02

Recommended for the Installation of Oetiker Ear- & Low Profile Clamps

Benefits

- Accurate and precise closures
- Verified and traceable connections
- Easy and safe integration into (automated) processes
- Highest process and quality standards



Highly efficient, verified assembly

Process reliability, electronic monitoring of parameters – 100% documentation

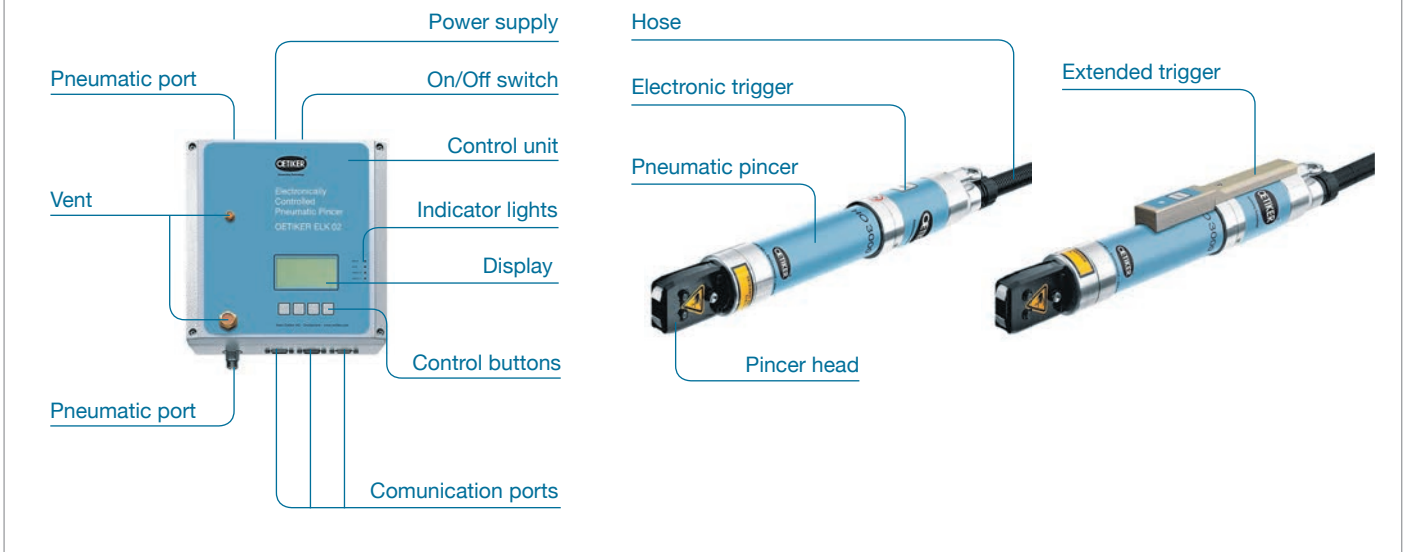
Multiple closure prevention

Optimal usability thanks to function keys and large display

Force or stroke-priority closure

Complete integration into automated systems (via USB-, extended mixed signal- and RS232 port)

FEATURES



Electronically Controlled Pneumatic Pincer Oetiker ELK 02

PRODUCT DESCRIPTION

This high quality, complete pincer system ensures the uniform and reliable assembly of Oetiker clamps and consists of the control unit and the pincer.

For optimal adaption to any requirement a wide range of pincer body sizes and pincer heads is available. The control unit can be selected with plug types for different regions.

Oetiker will be pleased to help you to find the correct choice for your application.

Data log acquisition from an Oetiker ELK 02 is available in the integrated “Measurement”-mask, when connected to a PC.

Standard hose/cable length of the Trigger unit is 3 m. Alternative hose/cable lengths, also as angled versions, on request.

The ELK 02 control unit and the software can be operated in different languages. The technical description is included on a CD.

Selection example

For a closing force of approx. 3000 N and using an HO 3000 EL, the available inlet pressure must be at least 6 bar. The closing force itself must be set to the required data by changing parameters in the ELK 02 control unit. This can be done using a PC. The closure can be triggered off manually or by programming a sequence into the ELK 02 or by an external control signal. A closing force tester, for example Test Equipment CAL 01, is used to determine and set the correct closing force.

To maintain consistent pincer force, sufficient compressed air pressure and volume must be provided.

Technical data ELK 02 control unit

Power supply:	85–265 V / 47–63 Hz
Power requirement:	30 Va (Fuse 10 A)
Compressed air supply:	4-10 bar
External dimensions:	200 × 230 × 70 mm
Weight:	3.7 kg

Delivery scope ELK 02 control unit

Control unit item no. 13600347
PC Software ELK 02
CD with operating instructions
Compressed air connection set (incl. filter/water separator)
Connection cable for all interfaces
Main cable with country-specific plug

Selection of control unit

Plug type	Schuko plug (plug type F, 3-pole)	CH (plug type J, 3-pole)	UK (plug type G, 3-pole)	USA (plug type B, 3-pole)	South America (plug 3-pole)	AUS (plug type I, 3-pole)	Japan (plug type B, 3-pole)
Norm conformity	CEE 7/4	SEV 1011	BS 1363	NEMA 5-15	NBR 14136	AS 3112	NEMA 5-15
Item No.	13600420	13600421	13600422	13600423	13600424	13600425	13600426

For control unit ELK 02, order pincer and pincer head in accordance with the requirements of the Oetiker clamp type to be assembled: see following pages.

SELECTION OF COMPLETE PINCER SYSTEMS

The complete pincer system consists of pincer head and pincer.

- 1) First select the pincer head in accordance with the requirement.
- 2) Then select the pincer type (EL or ELT) in the corresponding columns below. The item numbers for the complete pincer include the pincer and the desired pincer head.

Pincer heads

Jaw width (mm)	5.5	7.5	7.5	10.2	10.2	10.5	10.5	14.5	14.5
Open gap (mm)	8.6	11.6	13.2	13.2	16.2	13.7	16.6	16.6	16.6
For ear width* (mm)	</= 7	8.0	10.0	10.0	13.0	10.0	13.0	13.0	13.0
Item No.	13900156	13900152	13900148	13900119	13900140	13900112	13900097	13900544	13900774

* measured inside

Type HO X000 EL – Pincer with standard trigger

EL without pincer head

HO 2000 EL										
Pincer complete	13900187	13900188	13900189	13900191	-	-	-	-	-	13900231
Replacement-jaw kit	13900166	13900167	13900168	13900163	-	-	-	-	-	-
HO 3000 EL										
Pincer complete	-	13900192	13900193	13900195	13900196	-	-	-	-	13900232
Replacement-jaw kit	-	13900167	13900168	13900163	13900170	-	-	-	-	-
HO 4000 EL										
Pincer complete	-	-	-	13900199	13900200	-	-	-	-	13900233
Replacement-jaw kit	-	-	-	13900163	13900170	-	-	-	-	-
HO 5000 EL										
Pincer complete	-	-	-	-	-	13900201	13900202	-	-	13900234
Replacement-jaw kit	-	-	-	-	-	13900164	13900165	-	-	-
HO 7000 EL										
Pincer complete	-	-	-	-	-	13900203	13900204	13900547	-	13900235
Replacement-jaw kit	-	-	-	-	-	13900164	13900165	13900545	-	-

Type HO X000 ELT – Pincer with extended trigger

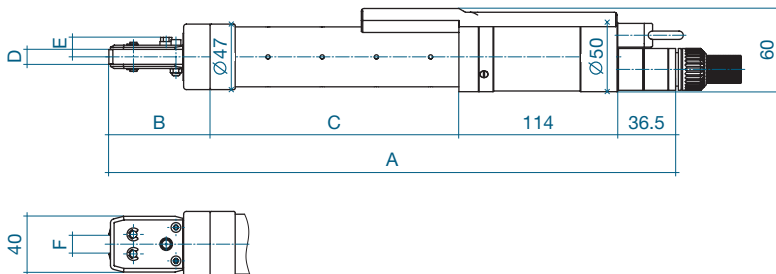
ELT without pincer head

HO 2000 ELT										
Pincer complete	13900529	13900530	13900496	13900532	-	-	-	-	-	13900333
Replacement-jaw kit	13900166	13900167	13900168	13900163	-	-	-	-	-	-
HO 3000 ELT										
Pincer complete	-	13900533	13900534	13900373	13900536	-	-	-	-	13900335
Replacement-jaw kit	-	13900167	13900168	13900163	13900170	-	-	-	-	-
HO 4000 ELT										
Pincer complete	-	-	-	13900539	13900540	-	-	-	-	13900337
Replacement-jaw kit	-	-	-	13900163	13900170	-	-	-	-	-
HO 5000 ELT										
Pincer complete	-	-	-	-	-	13900525	13900526	-	-	13900339
Replacement-jaw kit	-	-	-	-	-	13900164	13900165	-	-	-
HO 7000 ELT										
Pincer complete	-	-	-	-	-	13900382	13900541	13900723	-	13900341
Replacement-jaw kit	-	-	-	-	-	13900164	13900165	13900545	-	-
HO 10000 ELT										
Pincer complete	-	-	-	-	-	-	-	-	13900805	13900879
Replacement-jaw kit	-	-	-	-	-	-	-	-	13900545	-

Item numbers in blue type belong to the recommended basic equipment. Replacement jaw kit = left and right pincer jaws complete with all necessary parts. The jaw width must be at least 0.5 mm wider than the band used for the clamps to be assembled. The opening gap should be wide enough for the largest ear.

TECHNICAL DATA

HO 2000 EL / ELT, HO 3000 EL / ELT, HO 4000 EL / ELT



Pincer heads

Jaw width (mm)	5.5	7.5	7.5	10.2	10.2	10.2
For ear width* (mm)	<= 7	8.0	10.0	8.0	10.0	13.0
Item No.	13900156	13900152	13900148	13900144	13900119	13900140

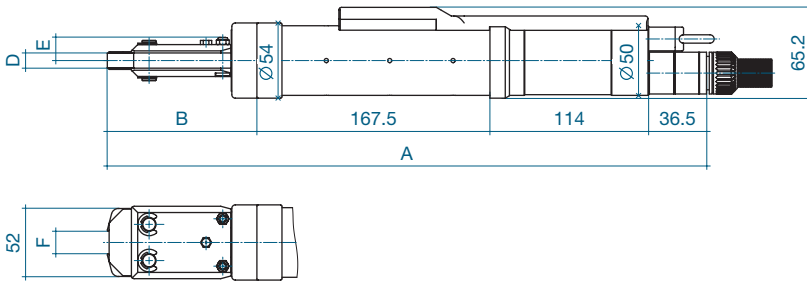
Type of pincer

Type of pincer	Parameter	5.5	7.5	7.5	10.2	10.2	10.2
HO 2000 EL/ELT	A (mm)	325.0	324.0	324.0	324.0	324.0	–
	B (mm)	74.0	73.0	73.0	73.0	73.0	–
	C (mm)	101.0	101.0	101.0	101.0	101.0	–
	D (mm)	5.5	7.5	7.5	10.2	10.2	–
	E (mm)	11.6	12.6	12.6	14.0	14.0	–
	F (mm)	8.6	11.6	13.2	11.6	13.2	–
HO 3000 EL/ELT	A (mm)	–	363.0	363.0	363.0	363.0	368.0
	B (mm)	–	73.0	73.0	73.0	73.0	78.0
	C (mm)	–	140.0	140.0	140.0	140.0	140.0
	D (mm)	–	7.5	7.5	10.2	10.2	10.2
	E (mm)	–	12.6	12.6	14.0	14.0	14.0
	F (mm)	–	11.6	13.2	11.6	13.2	16.2
HO 4000 EL/ELT	A (mm)	–	–	402.0	402.0	402.0	407.0
	B (mm)	–	–	73.0	73.0	73.0	78.0
	C (mm)	–	–	179.0	179.0	179.0	179.0
	D (mm)	–	–	7.5	10.2	10.2	10.2
	E (mm)	–	–	12.6	14.0	14.0	14.0
	F (mm)	–	–	13.2	11.6	13.2	16.2

* measured inside

TECHNICAL DATA

HO 5000 EL/ELT



Pincer heads

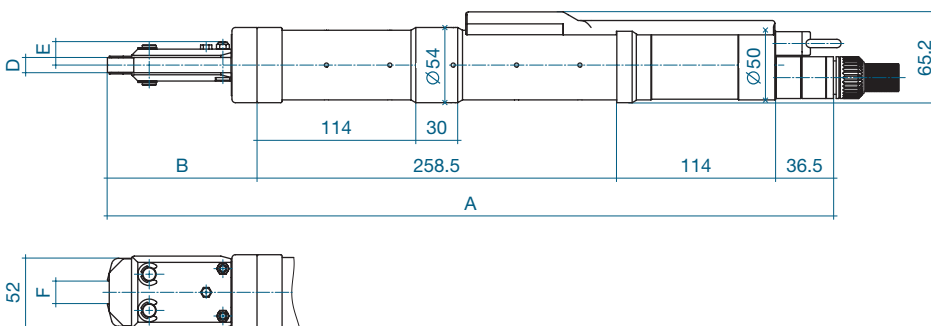
Jaw width D (mm)	10.5	10.5	14.5
For ear width* (mm)	10.0	13.0	13.0
Item No.	13900112	13900097	13900544

* measured inside

Type of pincer

HO 5000 EL/ELT	A (mm)	420	425	425
	B (mm)	102.0	107.0	107.0
	E (mm)	16.6	16.6	18.6
	F (mm)	13.7	16.6	16.6

HO 7000 EL/ELT



Pincer heads

Jaw width D (mm)	10.5	10.5	14.5
For ear width* (mm)	10.0	13.0	13.0
Item No.	13900112	13900097	13900544

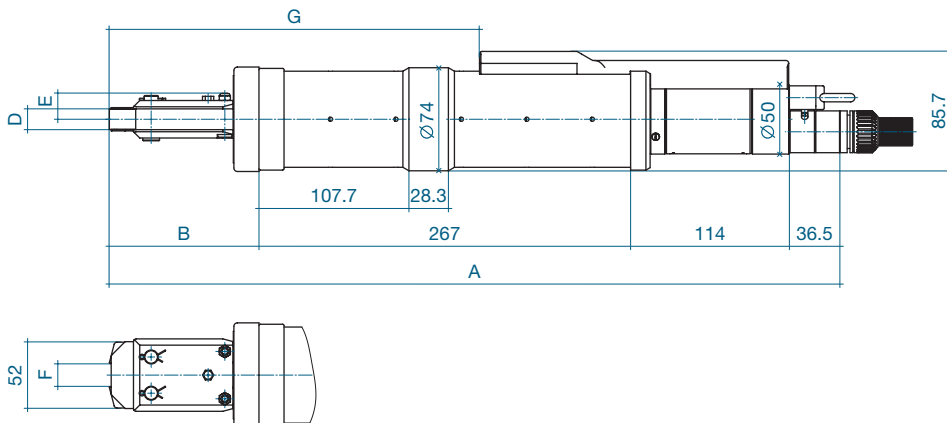
* measured inside

Type of pincer

HO 7000 EL/ELT	A (mm)	511	516	516
	B (mm)	102.0	107.0	107.0
	E (mm)	16.6	16.6	18.6
	F (mm)	13.7	16.6	16.6

TECHNICAL DATA

HO 10000 ELT



Pincer heads

Jaw width D (mm)	14.5
For ear width* (mm)	13.0
Item No.	13900774

* measured inside

Type of pincer

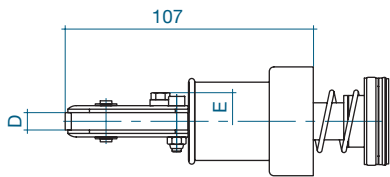
HO 10000 EL/ELT	A (mm)	525
	B (mm)	107.0
	E (mm)	18.6
	F (mm)	16.6
	G (mm)	265.4

SPECIAL PINCER HEADS FOR OETIKER EL – ASSEMBLY OF OETIKER EAR CLAMPS

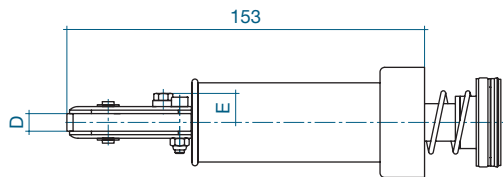
Pincer head with extended holders

Different extensions allow to reach areas where access is restricted. Compatible with pincer types HO 2000 to HO 4000.

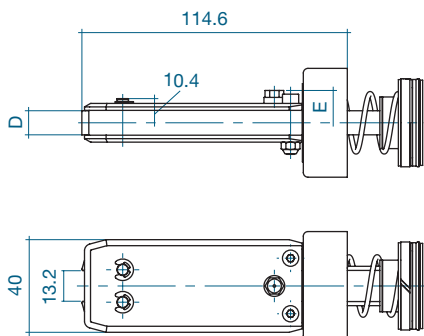
Extension 34.5 mm



Extension 80.0 mm



Extension 42.0 mm, narrow



Selection of pincer heads

The jaw width must be at least 0.5 mm wider than the band used for the clamps to be assembled. The opening gap should be wide enough for the largest ear.

Pincer heads

Jaw width D (mm)	5.5	7.5	10.2
Open gap (mm)	8.6	13.2	13.2
Height E (mm)	11.0	12.0	14.0
For ear width** (mm)	</=7	10.0	10.0

Type of pincer

HO EL* Pincer head complete	13900271	13900273	13900275
Replacement-jaw kit	13900166	13900168	13900163
Check gauge***	13600389	13600389	13600389

Pincer heads

Jaw width D (mm)	5.5	7.5	10.2
Open gap (mm)	8.6	13.2	13.2
Height E (mm)	11.0	12.0	14.0
For ear width** (mm)	</=7	10.0	10.0

Type of pincer

HO EL* Pincer head complete	13900277	13900279	13900281
Replacement-jaw kit	13900166	13900168	13900163
Check gauge***	13600389	13600389	13600389

Pincer heads

Jaw width D (mm)	7.5	10.2
Open gap (mm)	13.2	13.2
Height E (mm)	12.7	14.0
For ear width** (mm)	10.0	10.0

Type of pincer

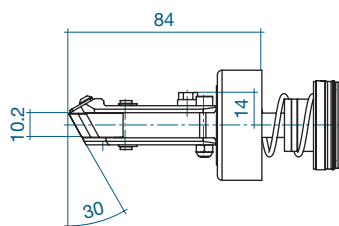
HO EL* Pincer head complete	13900820	13900802
Replacement-jaw kit	13900168	13900163

* also for ELT type
 ** Measured inside
 *** already included in CAL 01

Pincer heads with angled jaws

Specially for installing ear clamps where access is restricted.
 Suitable for ear clamps with 7 and 9 mm band widths.
 Compatible with pincer types HO 2000 to HO 4000.

Jaws angled at 30°



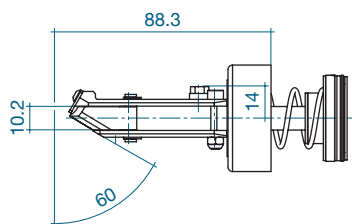
Pincer heads 30°

Jaw width (mm)	10.2
Open gap (mm)	13.2
For ear width** (mm)	10.0

Type of pincer

HO EL* Pincer head complete	13900707
Replacement-jaw kit	13900708
Calibration set	13600871

Jaws angled at 60°



Pincer heads 60°

Jaw width (mm)	10.2
Open gap (mm)	13.2
For ear width** (mm)	10.0

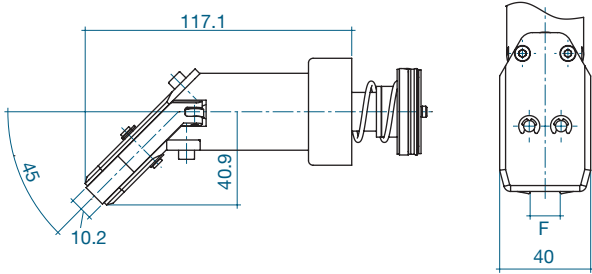
Type of pincer

HO EL* Pincer head complete	13900697
Replacement-jaw kit	13900695
Calibration set	13600872

* also for ELT
 ** Measured inside

Jaws angled at 45°

Compatible with pincer types HO 2000 to 4000.



Pincer heads 45°

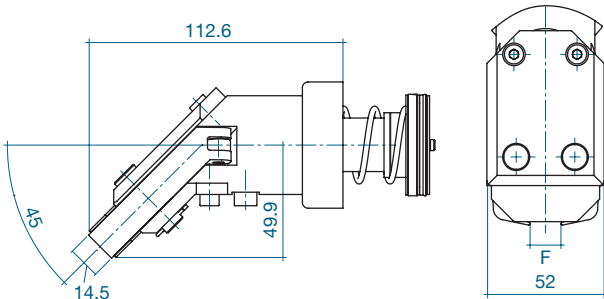
Jaw width (mm)	10.2
Open gap F (mm)	16.2
For ear width** (mm)	13.0

Type of pincer

HO EL* Pincer head complete	13900776
Replacement-jaw kit	13900777

Jaws angled at 45°

Compatible with pincer types HO 5000 and 7000.



Pincer heads 45°

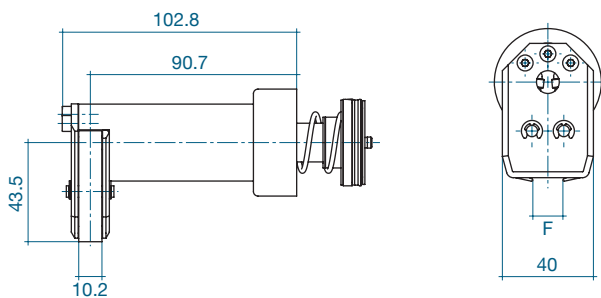
Jaw width (mm)	14.5
Open gap F (mm)	16.6
For ear width** (mm)	13.0

Type of pincer

HO EL* Pincer head complete	13900783
Replacement-jaw kit	13900785

Jaws angled at 90°

Compatible with pincer types HO 2000 to 4000.



Pincer heads 90°

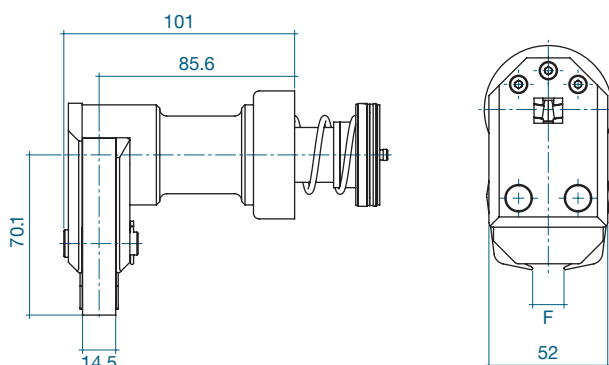
Jaw width (mm)	10.2
Open gap F (mm)	16.2
For ear width** (mm)	13.0

Type of pincer

HO EL* Pincer head complete	13900779
Replacement-jaw kit	13900780

Jaws angled at 90°

Compatible with pincer types HO 5000 and 7000.



Pincer heads 90°

Jaw width (mm)	14.5
Open gap F (mm)	16.6
For ear width** (mm)	13.0

Type of pincer

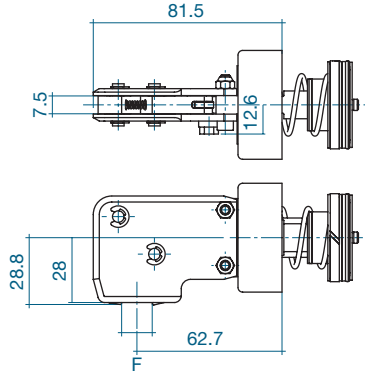
HO EL* Pincer head complete	13900787
Replacement-jaw kit	13900789

* also for ELT

** Measured inside

90° lengthwise

Compatible with pincer types HO 2000 to 4000.



Pincer heads 90° lengthwise

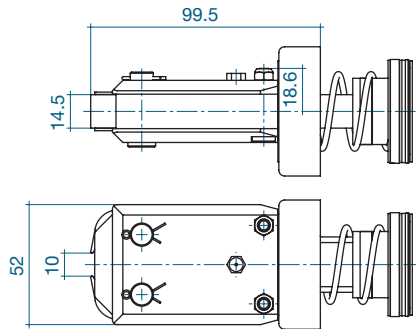
Jaw width (mm)	7.5	7.5
Open gap F (mm)	13.2	16.2
For ear width** (mm)	10.0	13.0

Type of pincer

HO EL* Pincer head complete	13901281	13901283
Replacement-jaw kit	13901284	13901284

Pincer Head for 1-Ear Clamp with stud

Pincer head for assembly of 1-Ear Clamp with stud, band width 14 mm. Compatible with pincer types HO 5000 and 7000.



Pincer heads

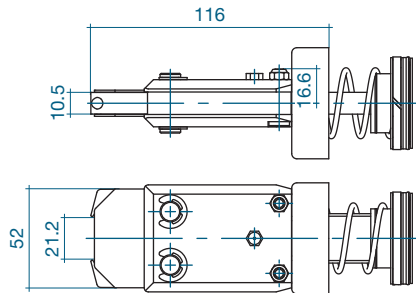
Jaw width (mm)	14.5
Open gap (mm)	10.0
For ear width** (mm)	≤ 5.5

Type of pincer

HO EL* Pincer head complete	13900772
Replacement-jaw kit	13900771
Check gauge	13600389

Pincer Head for ToothLock® Ear Clamp

Pincer head for assembly of ToothLock® Ear Clamp. Compatible with pincer type HO 7000.



Pincer heads

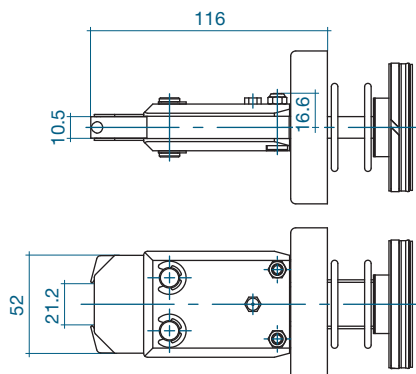
Jaw width (mm)	10.5
Open gap (mm)	21.2
For ear width** (mm)	17.0

Type of pincer

HO EL* Pincer head complete	13900852
Replacement-jaw kit	13900853

Pincer Head for ToothLock® Ear Clamp

Pincer head for assembly of ToothLock® Ear Clamp. Compatible with pincer type HO 10000.



Pincer heads

Jaw width (mm)	10.5
Open gap (mm)	21.2
For ear width** (mm)	17.0

Type of pincer

HO EL* Pincer head complete	13900854
Replacement-jaw kit	13900853

* also for ELT

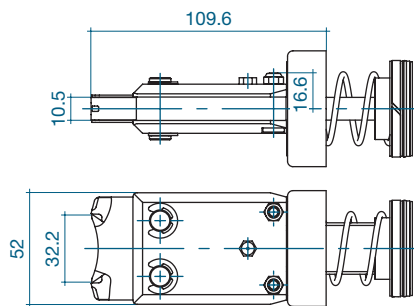
** Measured inside

SPECIAL PINCER HEADS FOR OETIKER EL – ASSEMBLY OF OETIKER STEPLESS® LOW PROFILE CLAMPS

All Oetiker StepLess® Low Profile Clamps have unique head requirements and are specific to the product group designation and type. When using Oetiker ME pneumatic pincers, it is essential to use a throttle valve for adjusting the closing speed.

Pincer head for installing ToothLock® Low Profile Clamp – 292

Compatible with pincer type HO 5000 and HO 7000.



Pincer heads

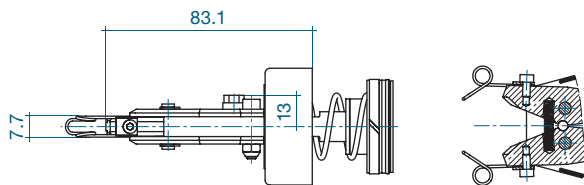
Jaw width (mm)	10.5
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Type of pincer

HO EL* Pincer head complete	13900847
Replacement-jaw kit	13900848
Calibration set	13900942

Pincer heads for installing reusable StepLess® Low Profile Clamps – 168 (RWV)

The hold-down springs fitted to both jaws make closure easier and improve handling. Compatible with pincer types HO 2000 to 4000.



Pincer heads

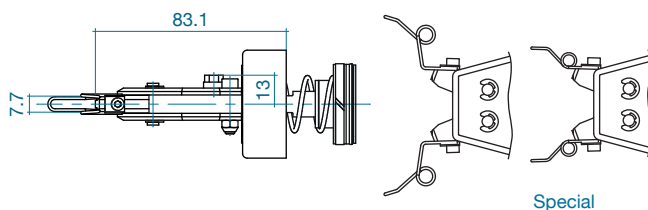
Jaw width (mm)	7.7
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Pincer types

HO EL* Pincer head complete	13900667
Replacement-jaw kit	13900673
Spring accessory	13900677
Calibration adaptor	13900862

Pincer heads for installing StepLess® Low Profile Clamps – 168

The optional hold-down springs improve handling, especially for production-line applications. Can be used for standard clamps from 50 mm (or approx. 19.5 mm for special types). Can be used for clamps 7, 9 mm and 10 mm wide. Compatible with pincer types HO 3000 and 4000.



Pincer heads

	Standard	Special**
Jaw width (mm)	7.7	7.7

Pincer types

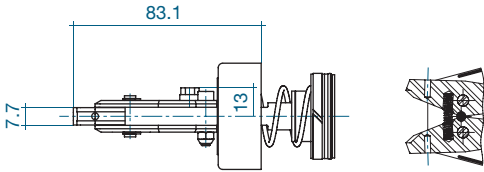
HO EL* Pincer head complete	13900663	13900665
Replacement-jaw kit	13900673	13900673
Spring accessory	13900675	13900676
Calibration adaptor	13900862	13900862

* also for ELT

** Low-profile clamp with single closure hook – only for 7 mm band width. Especially suitable for small low-profile clamps.

Pincer heads for installing StepLess® Low Profile Clamps with tolerance compensation – 168

Compatible with pincer types HO 3000 and 4000.



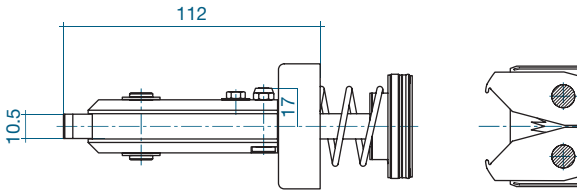
Pincer heads	RT 8
Jaw width (mm)	7.7

Pincer types	
HO EL* Pincer head complete	13900669
Replacement-jaw kit	13900673
Calibration adaptor	13900862

Pincer head for installing StepLess® Low Profile Clamp 192

Compatible with pincer types HO 5000 EL and 7000 EL.

StepLess® Low Profile Clamp 192 with tolerance compensation element
1/3 waves

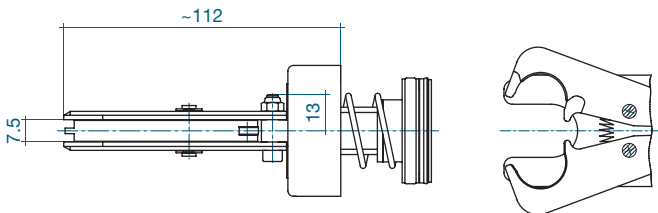


Pincer heads	
Jaw width (mm)	10.5

Pincer types	
HO EL* Pincer head complete	13900555
Replacement-jaw kit	13900556
Calibration adaptor EL	13900495

Pincer head for installing Clamps ER – 194

Compatible with pincer types HO 2000 to 4000 ME.



Pincer heads	
Jaw width (mm)	7.5

Pincer types	
HO EL	On request

* also for ELT