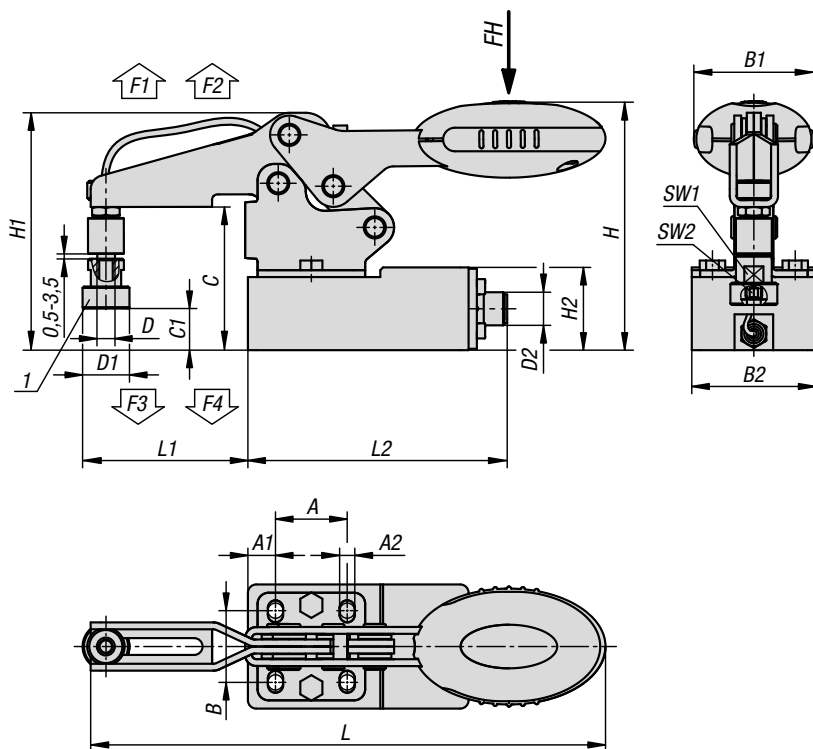
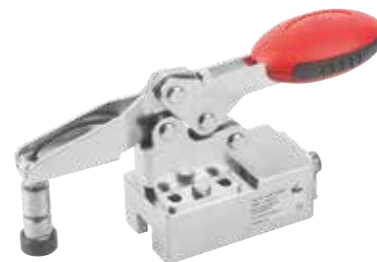


## Toggle clamps, horizontal, stainless steel

with force sensor



### Drawing reference:

1) Clamping element K1464

### Material:

Clamp stainless steel.  
Grip polyamide.  
Force sensor stainless steel.  
Electronics housing stainless steel.

Spacer sleeve stainless steel.  
Grub screw stainless steel.  
Protective cap thermoplastic.

### Version:

Stainless steel parts bright.  
Protective cap black.

### Sample order:

K1463.10600011

### Note:

incl. 1 set clamping elements K1464

### Application:

Toggle clamps are used to hold and clamp workpieces. They are used as mounting and holding fixtures. The toggle clamp with force sensor enables measurement and adjustment of the retaining force. Workpieces can be defined and the retaining force recorded.

The clamping element is used to adjust the retaining force. Clamping elements with different heights are available for workpieces with different thicknesses.

### Accessories:

K1464

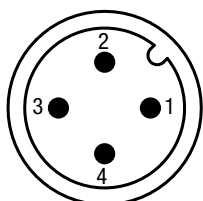
### Technical data:

Force sensor:  
Nom. force  $F_{nom}$ : clamping force  $F4$   
Calibration range: 0 - clamping force  $F4$   
Overall system accuracy: 5%  $F_{nom}$   
Limit force  $F_L$ : 120%  $F_{nom}$   
Breaking force  $F_{B'}$ : >200%  $F_{nom}$   
Nom. temp. range  $B_{T,nom}$ : -20 - +60 °C

### Amplifier electronics:

Operating voltage: 10 - 30 V DC  
Output signal (rated output)  $C_{nom}$ : 4 - 20 mA 3-wire  
Permitted load:  $<(U_b - 10V)/0.024 A$   
Electrical connection: M12x1  
Pin assignment:  
1: UB+  
2: -  
3: 0V / S-  
4: S+

Protection class: IP66



## Toggle clamps, horizontal, stainless steel

with force sensor



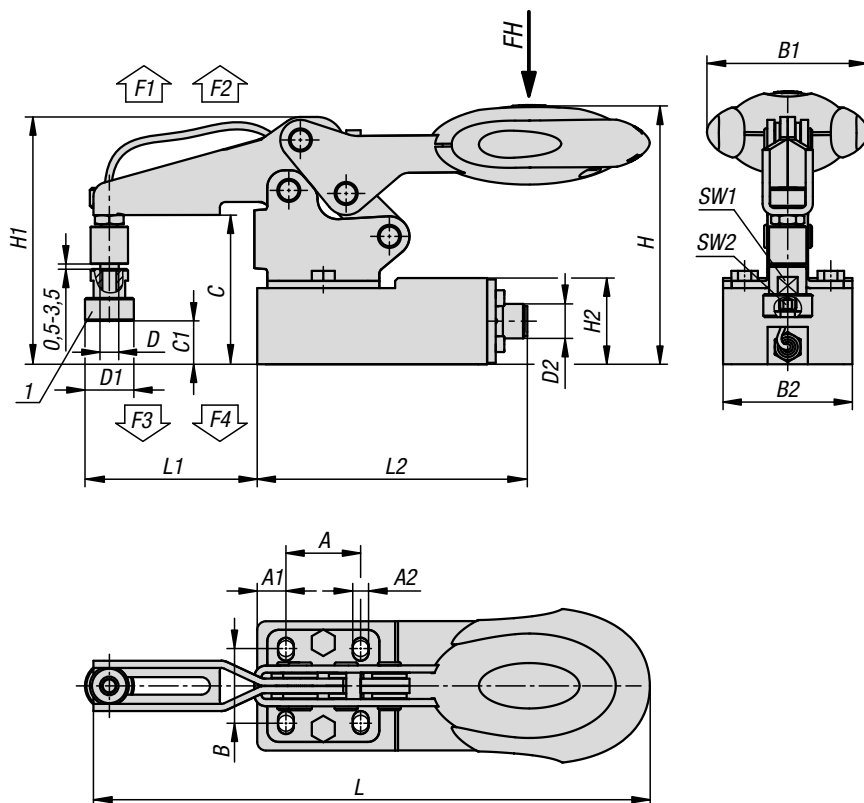
### KIPP Stainless steel toggle clamp, horizontal with force sensor

Order No.	Component colour	Opening angle of holding arm	Opening angle of handle	Hand force FH N	Retaining force F1 N	Retaining force F2 N	Clamping force F3 N	Clamping force F4 N	Output signal
K1463.10600011	black grey RAL 7021	86°	67°	160	1350	1900	720	1200	4-20mA
K1463.10800011	black grey RAL 7021	86°	67°	200	2000	2800	830	1400	4-20mA
K1463.10600311	red	86°	67°	160	1350	1900	720	1200	4-20mA
K1463.10800311	red	86°	67°	200	2000	2800	830	1400	4-20mA

Order No.	Component colour	A	A1	A2	B	B1	B2	C	C1	D	D1	D2	H	H1	H2	L	L1	L2	SW1	SW2
K1463.10600011	black grey RAL 7021	26	10	5,5	26	43,5	45	51,9	max. 16,4	M6	17	M12x1	90,2	86,1	30	186,6	60	94	11	3
K1463.10800011	black grey RAL 7021	26	10	6,2	26	41,5	45	58,7	max. 18,4	M8	17	M12x1	100,4	96,6	30	223,1	73,5	94	11	4
K1463.10600311	red	26	10	5,5	26	43,5	45	51,9	max. 16,4	M6	17	M12x1	90,2	86,1	30	186,6	60	94	11	3
K1463.10800311	red	26	10	6,2	26	41,5	45	58,7	max. 18,4	M8	17	M12x1	100,4	96,6	30	223,1	73,5	94	11	4

## Toggle clamps, horizontal, stainless steel

with safety interlock and force sensor



### Material:

Clamp stainless steel.  
Grip polyamide.  
Release lever TPE.  
Force sensor stainless steel.  
Electronics housing stainless steel.

Spacer sleeve stainless steel.  
Grub screw stainless steel.  
Protective cap thermoplastic.

### Version:

Stainless steel parts bright.  
Protective cap black.

### Sample order:

K1463.10610011

### Note:

incl. 1 set clamping elements K1464

### Application:

Toggle clamps are used to hold and clamp workpieces. They are used as mounting and holding fixtures. The toggle clamp with force sensor enables measurement and adjustment of the retaining force. Workpieces can be defined and the retaining force recorded.

The clamping element is used to adjust the retaining force. Clamping elements with different heights are available for workpieces with different thicknesses.

### Accessories:

K1464

### Technical data:

Force sensor:  
Nom. force  $F_{nom}$ : clamping force  $F_4$   
Calibration range: 0 - clamping force  $F_4$   
Overall system accuracy: 5%  $F_{nom}$   
Limit force  $F_L$ : 120%  $F_{nom}$   
Breaking force  $F_B$ : >200%  $F_{nom}$   
Nom. temp. range  $B_{T,nom}$ : -20 - +60 °C

### Amplifier electronics:

Operating voltage: 10 - 30 V DC  
Output signal (rated output)  $C_{nom}$ : 4 - 20 mA 3-wire  
Permitted load:  $<(U_b - 10V)/0.024 A$   
Electrical connection: M12x1

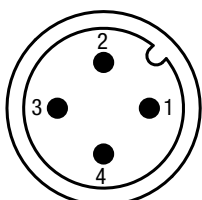
### Pin assignment:

1: UB+  
2: -  
3: 0V / S-  
4: S+

Protection class: IP66

### Drawing reference:

1) Clamping element K1464



## Toggle clamps, horizontal, stainless steel

with safety interlock and force sensor



### KIPP Stainless steel toggle clamp, horizontal with safety interlock and force sensor

Order No.	Component colour	Opening angle of holding arm	Opening angle of handle	Hand force FH N	Retaining force F1 N	Retaining force F2 N	Clamping force F3 N	Clamping force F4 N	Output signal
K1463.10610011	black grey RAL 7021	86°	67°	160	1350	1900	720	1200	4-20mA
K1463.10810011	black grey RAL 7021	86°	67°	200	2000	2800	830	1400	4-20mA
K1463.10610311	red	86°	67°	160	1350	1900	720	1200	4-20mA
K1463.10810311	red	86°	67°	200	2000	2800	830	1400	4-20mA

Order No.	Component colour	A	A1	A2	B	B1	B2	C	C1	D	D1	D2	H	H1	H2	L	L1	L2	SW1	SW2
K1463.10610011	black grey RAL 7021	26	10	5,5	26	53,4	45	51,9	max. 16,4	M6	17	M12x1	90,2	86,1	30	193,6	60	94	11	3
K1463.10810011	black grey RAL 7021	26	10	6,2	26	51,1	45	58,7	max. 18,4	M8	17	M12x1	100,4	96,6	30	230,4	73,5	94	11	4
K1463.10610311	red	26	10	5,5	26	53,4	45	51,9	max. 16,4	M6	17	M12x1	90,2	86,1	30	193,6	60	94	11	3
K1463.10810311	red	26	10	6,2	26	51,1	45	58,7	max. 18,4	M8	17	M12x1	100,4	96,6	30	230,4	73,5	94	11	4