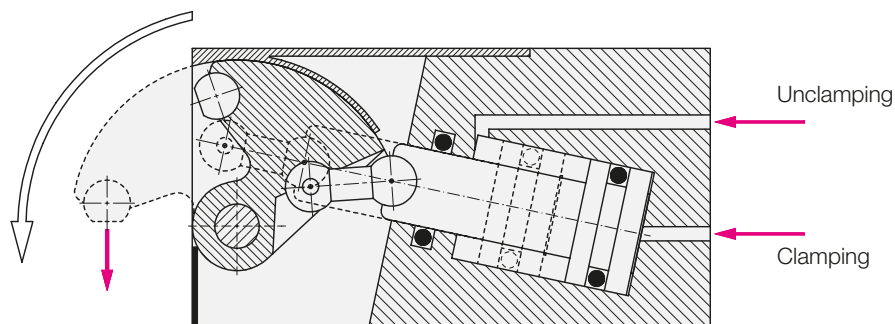




## Flat Clamp

with optional position monitoring,  
 double acting, max. operating pressure 500 bar



### Application

The flat clamp is a compact and flat clamping element with large clamping stroke.

This clamp is designed for clamping of flat workpieces in fixtures on machine tools or for welding applications. It is well protected against coolants and swarf and resistant to welding spatter.

### Description

The flat clamp is a double-acting hydraulic clamping element where the piston acts via a con-rod onto a clamping lever. In unclamped position, the clamping lever is completely retracted and the workpieces can easily be inserted from above. A clamping recess which is larger than the clamping lever is sufficient as clamping point.

The element compensates transverse forces at the clamping point. The clamping forces are introduced vertically to the base at the clamping height „h3“, therefore introducing no additional turning moments.

### Advantages

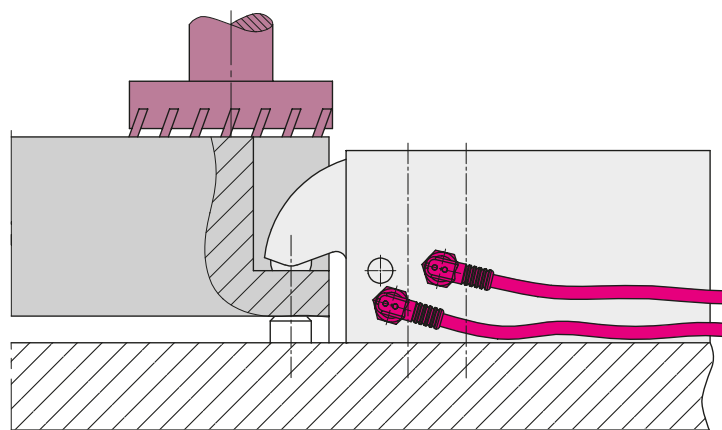
- flat and compact design
- high protection against swarf and welding spatter
- large clamping stroke
- clamping lever is completely retracted in unclamped mode
- transverse forces at the clamping point are compensated
- reduced maintenance
- Position monitoring, optional

### Important notes

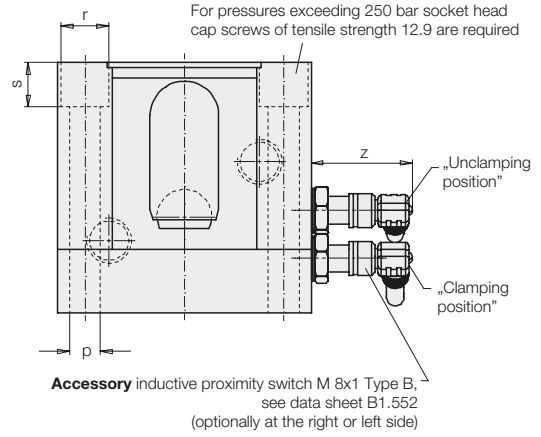
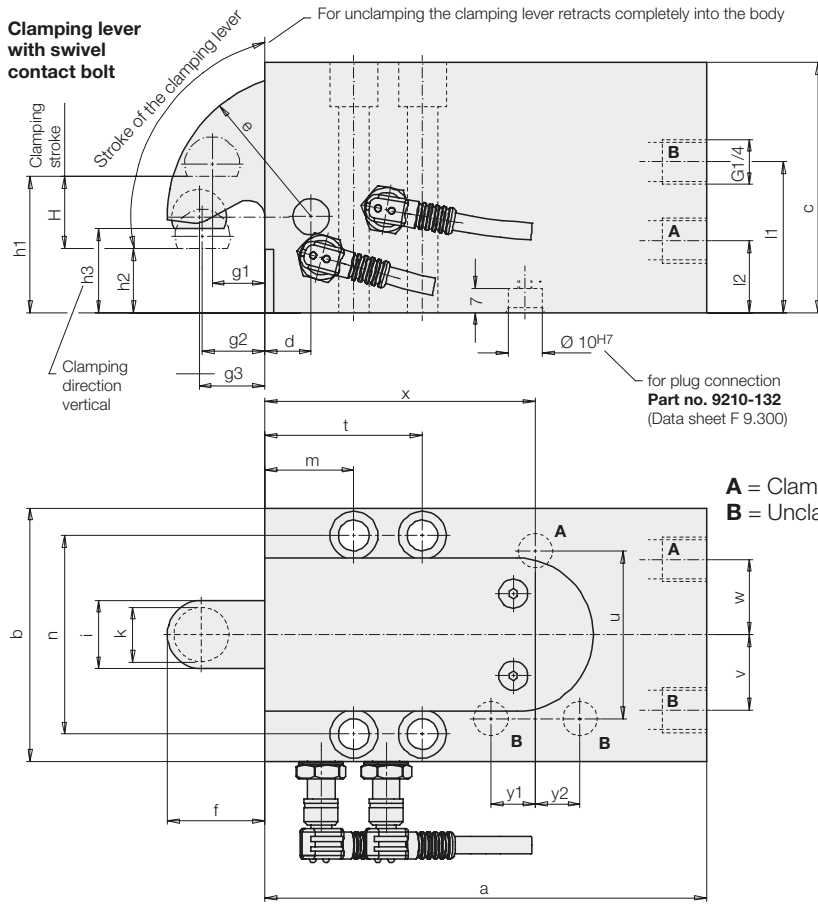
For metal-cutting and vertical mounting position (clamping lever upwards) it is recommended to remove the cover plate.

Operating conditions, tolerances and other data see data sheet A 0.100.

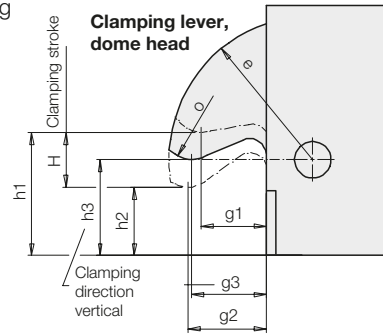
### Application example with inductive position monitoring



**Clamping lever with swivel contact bolt**



**A = Clamping**  
**B = Unclamping**



Accessories	Part no.
Screw plug G 1/4	<b>3610-264</b>
Plug connection NW5	<b>9210-132</b>
Ind. proximity switch	<b>3829-263</b>
Right angle plug with cable	<b>3829-099</b>

		Clamping lever	dome head	with swivel contact bolt	dome head	with swivel contact bolt
Clamping force at h3/h1	100 bar 500 bar	[kN]	2.1/2.4 10.5/12	2.3/2.5 11.5/12.5	3.7/4.1 18.5/20.5	3.8/4.1 19/20.5
H Clamping stroke max.		[mm]	12	9	16	10
Oil volume clamping	min./max. stroke	[cm <sup>3</sup> ]	5.89/9.57	6.48/9.57	12.63/20.51	15.12/20.51
Oil volume unclamping	min./max. stroke	[cm <sup>3</sup> ]	3.48/5.65	3.83/5.65	7.69/12.50	9.21/12.50
a		[mm]	108.5	108.5	129	129
b		[mm]	60	60	75	75
c		[mm]	58.5	58.5	73.5	73.5
d		[mm]	10	10	13.5	13.5
e		[mm]	34	34	42	42
f		[mm]	24	24	28.5	28.5
g1		[mm]	16	14	18	17.5
g2		[mm]	20	16	22.5	19
g3		[mm]	19.5	16	22	19
h1 Clamping height. max.		[mm]	30	28	38	34.5
h2 Clamping height. min.		[mm]	18	19	22	24.5
h3 Clamping height. vertical clamping direction		[mm]	21	20	28	26
i		[mm]	15	15	20	20
k		[mm]	-	12	-	16
l1		[mm]	45	45	44	44
l2		[mm]	30	30	21	21
m		[mm]	20.5	20.5	26	26
n		[mm]	47	47	58	58
o		[mm]	6	-	8	-
p		[mm]	6.6	6.6	8.5	8.5
r		[mm]	11	11	13.5	13.5
s		[mm]	12	12	13	13
t		[mm]	40.5	40.5	46	46
u ±0.02		[mm]	42	42	44	44
v		[mm]	19	19	22	22
w		[mm]	19	19	0	0
x		[mm]	76.5	76.5	66	66
y1 ±0.02		[mm]	13	13	-	-
y2 ±0.02		[mm]	-	-	10	10
z		[mm]	32	32	29	29
<b>Part no.</b>			<b>1824-201</b>	<b>1824-202</b>	<b>1824-261</b>	<b>1824-262</b>