

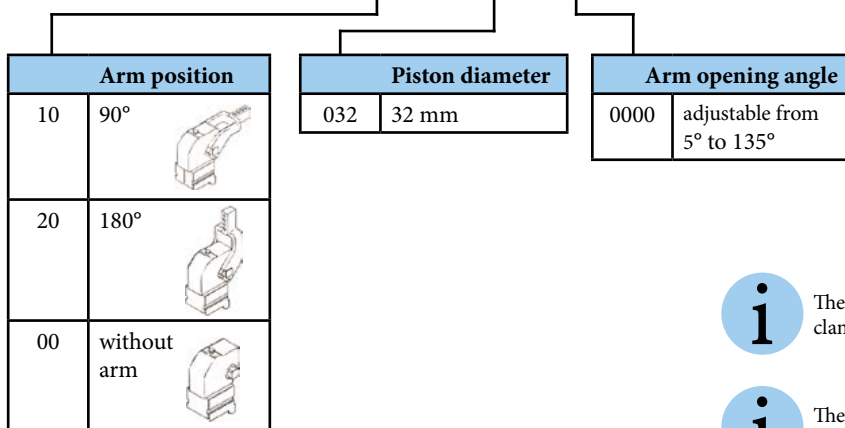
Pneumatic flat power clamps are especially suitable for clamping elements during welding, in the automotive industry or where it is necessary that the clamp does not take up a lot of space. Flat clamps have a higher torque than standard power clamps with the same mounting dimensions. Advantage of the clamp is that the parts moving rectilinearly are covered and are thereby protected from flying irons and dust. After clamping, the clamp is mechanically secured and there is no risk of loosening in the event of a compressed air failure. The clamps have an integrated sensor for both end positions.

Min. pressure	0,4 MPa
Max. pressure	0,6 MPa
Ambient temp.	+5°C to +45°C
Working medium	modified compressed air

Piston diameter [mm]	32
Connections	G1/8"
Release angle [°]	fully adjustable from 5 to 135
Clamping moment (0.5 MPa) [Nm]	120
Locking torque of the clamped position [Nm]	380
Working pressure [MPa]	0,4 to 0,6
End position damping method	rubber stop (requires use of throttle valves on both threaded connections)
Position sensor	integrated, inductive, PNP output, dual-position sensing, voltage 10 to 30 V DC ±10%, max. current 150 mA, power consumption 20 mA, M12x1 connector, 4-pin, LED indication, weld-field immune (up to 100 mT)
Recommended min. clamping/release time [s]	1
Weight [kg]	2,00 (with the arm)
Weight of the clamping arm [kg]	0,23

Order codes

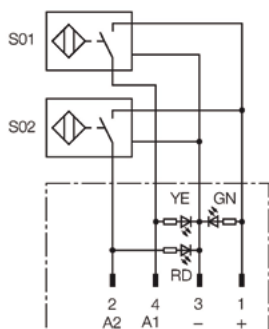
18301 10 00 032 0000



i The position sensor is integrated into the clamp.

i The arm position can be changed at any time.

Wiring diagram of the position sensor



Caution

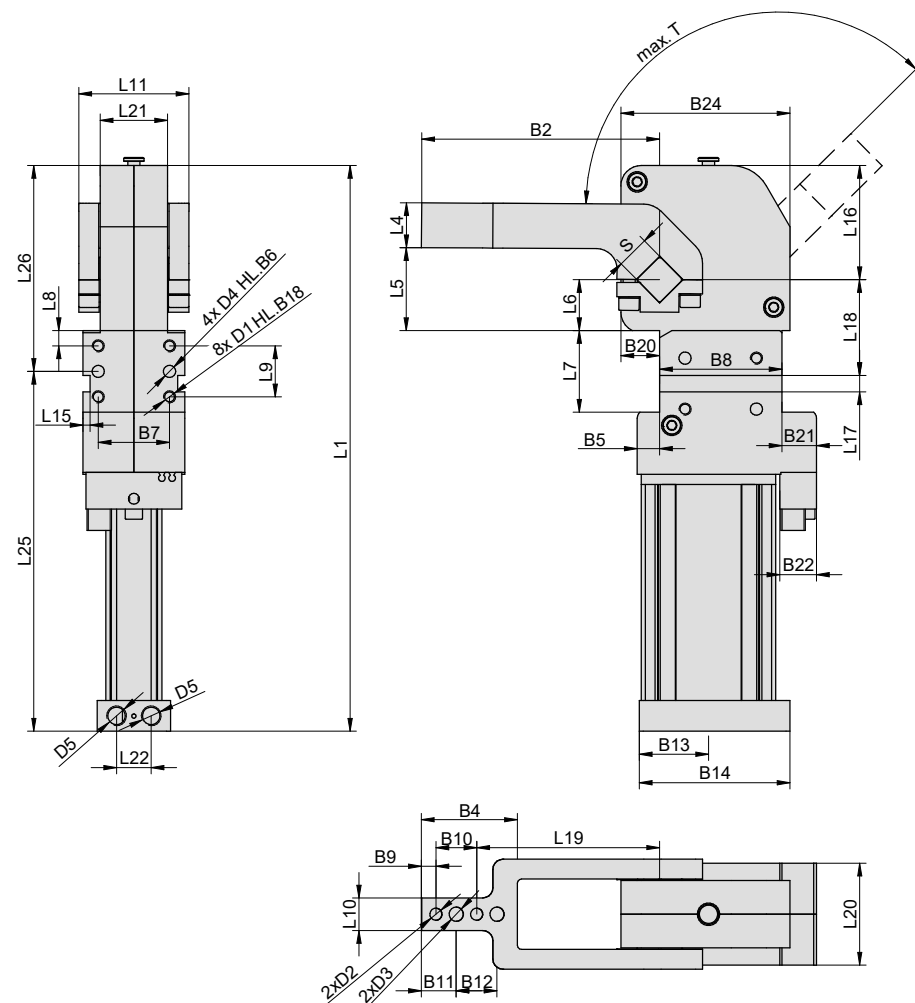
The clamp must be correctly adjusted in its working (clamped) position. The adjustment procedure is described on the next page.



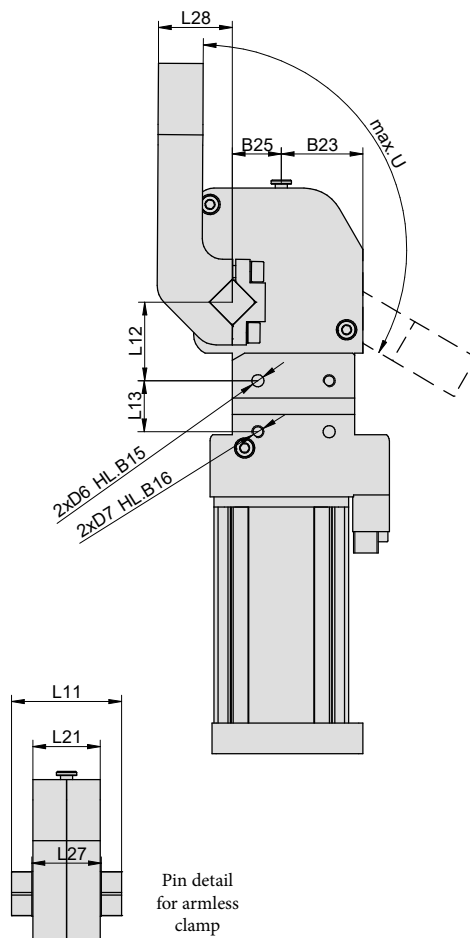
Caution

During installation, flow control valves must be used on both air inlets; otherwise, the clamp may be damaged.

Dimensions Arm position 90°



Arm position 180°



∅	B2	B4	B5	B6	B7*	B8 ±0,1	B9	B10 ±0,02	B11	B12	B13	B14	B15	B16	B18	B20	B21	B22	B23	B24	B25	D1	D2 H7	D3	D4 H7
32	117	47	11	8	35	60	7	20	17	20	34	74	8	8	12	19	17	18	40	83	24	M6	6	7	6

∅	D5	D6 H7	D7	L1	L4 ±0,1	L5	L6	L7 ±0,1	L8	L9 ±0,1	L10	L11	L12 ±0,1	L13*	L14*	L15	L16	L17 N9	L18 ±0,05	L19	L20	L21
32	G1/8"	6	M6	278	22	40	25	40	7,5	25	16	54	38,5	25	35	3,5	56	8	47	90	50	33

∅	L22	L25	L26	L27	L28	S h9	T max.	U max.
32	17	177	101	34	36	16	135°	120°

* Tolerance for plain holes ±0.02, for threaded holes ±0.01

Clamp adjusting

For the clamp to function properly, it is very important to ensure its correct adjustment. Correct adjustment ensures the best use of force, low wear and ensures self-locking of the clamp.

Setting procedure:

1. Fit the clamp with the necessary accessories – (clamping tools)
2. Bring the clamp into the closed state
3. Adjust the clamp grip so that it is closed with minimal play without clamping force (can be verified, for example, with paper)
4. Pre-tension the clamping device with screws, or support it with a shim of the thickness 1,5-2,3 mm (for air pressure 0,5 MPa)
5. Pre-tensioning (supporting) must respect the rotation arm in the center of gravity of the clamping device and the value of the

compressed air of the clamp. As the arm is extended, the pre-tensioning (supporting) also increases linearly

6. After test clamping, verify the self-locking of the clamp by releasing the compressed air. The clamps must hold clamped

If a too slim shim (low pre-tension) is used, the clamp will not be used sufficiently and the clamping force will be low.

If a too thick shim is used (significant preload), the clamp will not reach the self-locking clamping area and will again not achieve the necessary clamping force due to the low gear ratio of the link.