

## Electro Permanent Lifting Magnet



### Options:

- Different suspension brackets (also special designs)
- Complete magnet cross bars
- Pole shoes (prism-shaped or special designs)
- Handle with buttons
- Plug-type connectors for supply and control system connection
- Inching function to ensure one-plate pick-up
- Different pulse voltages
- Cycle time > 20s, special types available for shorter cycle times

**Electro Permanent Lifting Magnets of type 5190N** are used where ferromagnetic parts are to be lifted and transported safely.

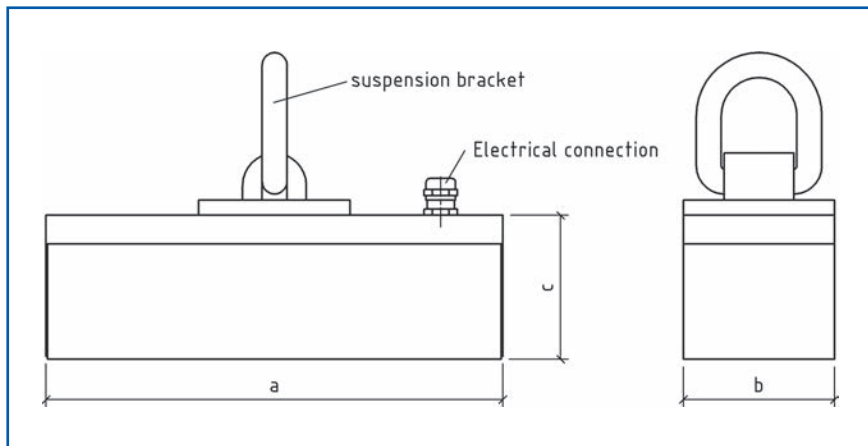
The integrated bipolar double magnet system allows not only high lifting forces at low magnet weight for the transport of flat and cubic parts but also the handling of round parts such as shafts and pipes by using prism-shaped pole shoes.

Its slim design also allows the handling of single rod-shaped parts up to the edge of the stack whereby any space between the parts in the stack can be neglected. For large or very long workpieces it is possible to use several magnets on one cross bar.

Clamping and unclamping of ferromagnetic parts on and from Electro Permanent Lifting Magnets is made by a short current pulse which activates or deactivates the permanent magnet system. This pulse control ensures low energy consumption at very low self-heating.

The workpieces are held by the integrated permanent magnet system without further current supply. A high-maintenance battery system as used for electric magnets is therefore not necessary. In case of power failure, the magnet maintains its holding force and the workpieces do not fall off!

Our pole reversal control units activate the Electro Permanent Lifting Magnets quickly and reliably. The magnetizing process is monitored at every activation of the magnet. This guarantees optimal operational safety, even in the event of a power failure. Depending on the type, up to 16 holding force levels are available in order to be able, for example, to pick up even very thin parts. The use of multiple demagnetizing programs enables quick and exact demagnetizing. The pole reversal unit can be activated via the PLC or a separate control unit, or by using the keyboard on the lifting magnet.



## Electro Permanent Lifting Magnet Type 5190N

### Characteristics:

Highest level of safety

- Magnetic force maintained even in case of power failure
- Lifting capacity specifications with triple safety acc. to EN13155 to pull-off strength

Energy-conscious

- Power used only for short pulses

### Dimensions and technical data:

Type	Width b [mm]	Length a [mm]	Height c [mm]	Weight ca. [kg]	Pull-off-strength [daN] ①	lifting capacity [daN] ②	at air gap [mm] ③
5190N-6/15	60	150	120	7,0	720	180	0,2
5190N-6/19	60	190	120	9,0	900	230	0,2
5190N-6/22.5	60	225	120	10,5	1095	275	0,2
5190N-6/26	60	260	120	12,0	1170	270	0,2
5190N-6/30	60	300	120	14,0	1470	370	0,2
5190N-6/34	60	340	120	16,0	1710	430	0,2
5190N-6/38	60	380	120	17,0	1950	460	0,2
5190N-6/42	60	420	120	18,0	2010	490	0,2
5190N-6/46	60	460	120	21,0	2100	520	0,2
5190N-6/50	60	500	120	22,0	2400	600	0,2
5190N-10/20	100	200	140	19,0	1620	420	0,3
5190N-10/25	100	250	140	22,0	1950	520	0,3
5190N-10/30	100	300	140	28,0	2400	610	0,3
5190N-10/35	100	350	140	33,0	2880	750	0,3
5190N-10/40	100	400	140	36,0	3180	800	0,3
5190N-10/45	100	450	140	41,0	3600	940	0,3
5190N-10/50	100	500	140	44,0	4200	1100	0,3
5190N-20/50	200	500	255	180	7800	2100	0,5
5190N-20/60	200	600	255	202	9600	2600	0,5
5190N-20/80	200	800	255	280	13500	3800	0,5
5190N-20/100	200	1000	255	336	17100	4900	0,5

① measured acc. to EN13155, at air gap = 0 mm

② calculated with triple safety for pull-off strength with regard to air gap specification

③ approx. width magnet / 300 acc. to EN13155 for lifting capacity design

- Nominal voltage as pulse EP210 or EP360 Volt DC
- Protection class: IP 64
- Other dimensions available upon request.

