



Permanent Magnetic Holding Solenoid Series 01 310



These permanent magnetic holding rods are electrically switchable holding solenoids. They consist of a permanent magnet and a DC-excited coil (vacuum potted) to neutralize the permanent magnetic field at the pole surface. The open magnetic circuit allows to hold ferromagnetic workpieces.

The electrical connection is made at two connecting screws which are easily accessible within the device and can be reached via a Pg gland.

This gland can be screwed in alternately from the side or from the bottom. The coil is vacuum potted, the magnet housing is zinc-coated and the holding surface is ground. For mounting there are thread bores at the bottom side of the device.

Application

These systems are preferably used where long holding times without energy consumption are required and a load or workpieces must be held reliably and safely in the case of power failure.

Lateral force loading equates to a displacement force F_v of approximately $1/4 F_H$.

Advantages

- Saving of energy by currentless holding
- High holding force
- No remanent magnetization after neutralization
- Safe holding even in the case of power failure

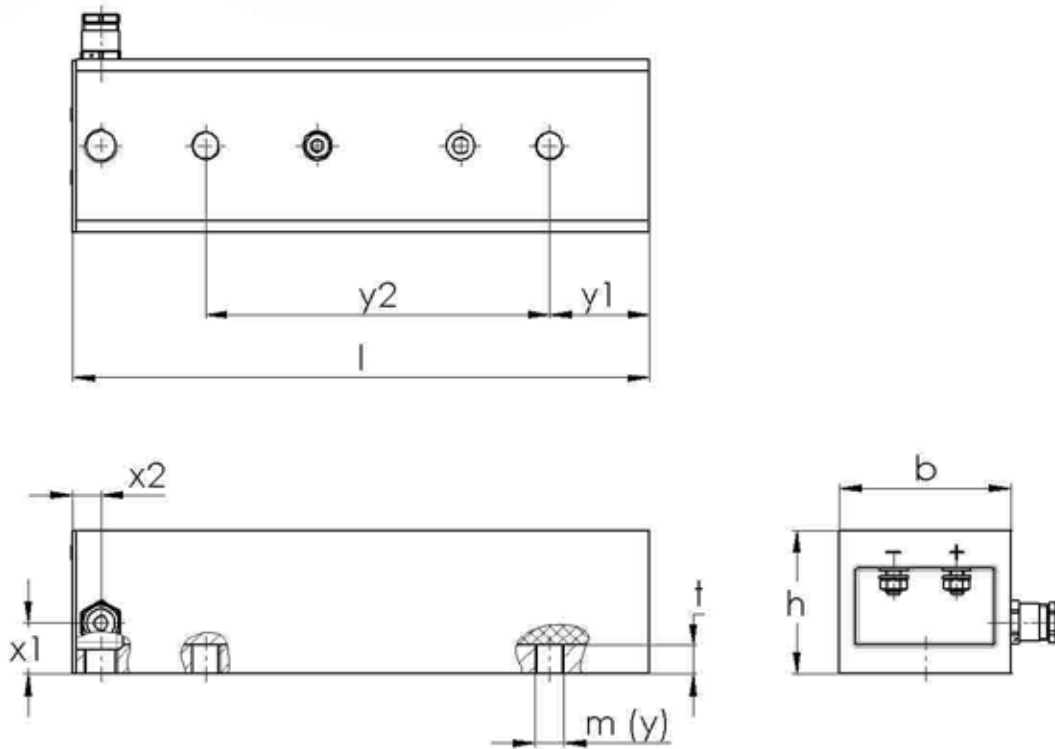
Technical Data

- Standard nominal voltage: 24 V DC
- Duty cycle: 25% ED
- Insulation class: E
- Pg-cable gland: HELUTOP HT-MS / M12 x 1,5

Safety note

- The attractive or repulsive forces of the permanent magnet can cause skin-contusion through sudden collide, even with larger distances. Therefore always wear protective gloves and glasses.

Cross Section



Technical Data

Designation	Length (l) x width (b) x high (h) [mm]	Max. holding force [N]	Nominal Power [W]	Thickness counter plate [mm]	Thread (m) x depth (t) [mm]	Number of threads (y)	Clearance (y ₁) [mm]	Clearance (y ₂) [mm]	Clearance (x ₁) [mm]	Clearance (x ₂) [mm]	Weight [kg]
01 31007A00	151.5 x 60 x 50	1000	27.9	6	M8x10	2	30	75	18	9.5	2.20
01 31008A00	201.5 x 60 x 50	1530	40	6	M8x10	2	35	120	18	9.5	3.00

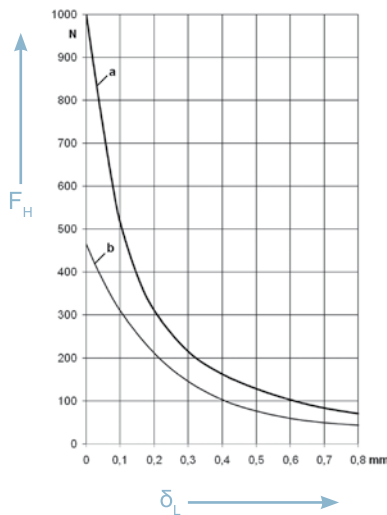


Special voltage configurations are available on request
 +34 977 206937 or binder@binder-es.com

Holding Force Curves

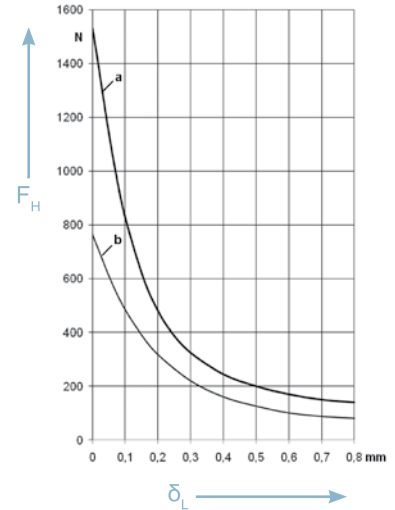
Holding forces F_H depending on air gap δ_L between holding solenoid and workpiece and on the indicated layer thickness of the counter plate. The values are valid for workpieces of material S235JR with 100% coverage of the holding surface and warmed up condition.

01 31007A00



Layer thickness \triangleq Material thickness:
 a = 6 mm b = 3 mm

01 31008A00



Layer thickness \triangleq Material thickness:
 a = 8 mm b = 3 mm