



Electromagnetic Holding Solenoid Series 10 310

The electromagnetic holding rods are DC holding systems. The magnetic circuit which is open in switched on condition 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 zined and the holding surface is ground. For mounting there are thread bores at the bottom side of the device.

Application

These solenoid systems are preferably used in general machine building, for handling and in safety technology for machine building.

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

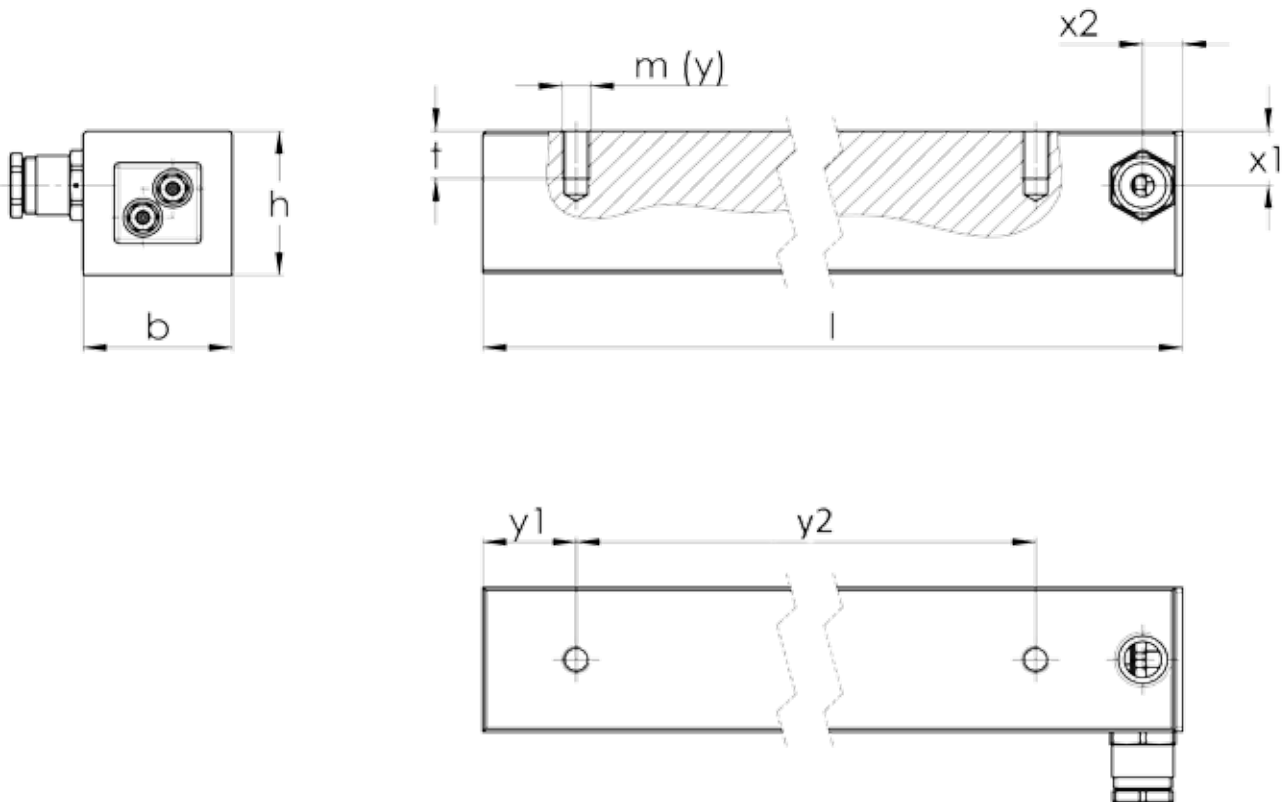
Advantages

- High holding force with low power consumption
- Compact design
- Manifold connection options

Technical Data

- Standard nominal voltage: 24 V DC
- Duty cycle: 100% ED
- Insulation class: E
- Pg-cable gland: HELUTOP HT-MS / M12 x 1,5

Cross Section



Technical Data

Designation	Length (l) x width (b) x height (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]
10 31001A1	101.5 x 32 x 31	880	6.5	8	M6x10	2	20	50	12	8.5	0.60
10 31002A1	151.5 x 32 x 31	1,500	10.5	8	M6x10	3	20	50	12	8.5	1.00
10 31003A1	201.5 x 32 x 31	2,100	12.9	8	M6x10	4	20	50	12	8.5	1.20
10 31004A1	401.5 x 32 x 31	4,700	24	8	M6x10	7	20	50	12	8.5	2.60
10 31005A1	501.5 x 32 x 31	6,000	30.6	8	M6x10	9	20	50	12	8.5	3.20
10 31006A1	601.5 x 32 x 31	7,200	45.7	8	M6x10	11	20	50	12	8.5	4.00
10 31007A00	151.5 x 60 x 49	2,600	22.3	10	M8x12	2	30	75	18	10	2.20
10 31008A00	202 x 60 x 49	3,750	30.2	10	M8x12	2	35	120	18	10	3.10
10 31009A00	502 x 60 x 49	10,400	64.9	10	M8x12	4	35	140	18	10	8.00



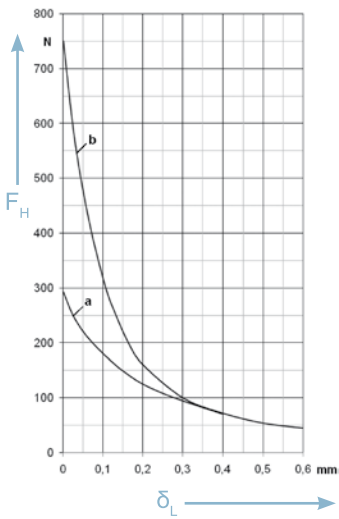
Special voltage configurations are available on request
+34 977 206937 or binder@binder-es.com

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, 90% of nominal voltage and warmed up condition (appr. 70 K excessive temperature without additional heat dissipation).

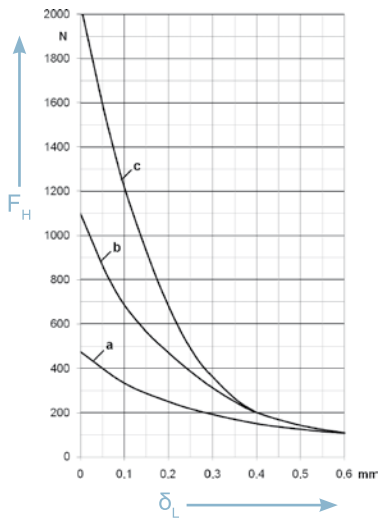


10 31001A1



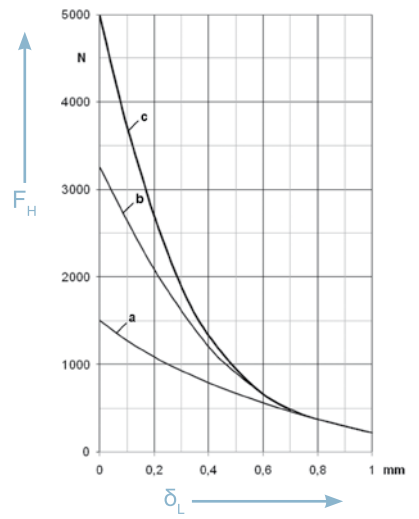
Layer thickness \triangleq Material thickness:
a = 1.5 mm b = 4 mm

10 31002A1



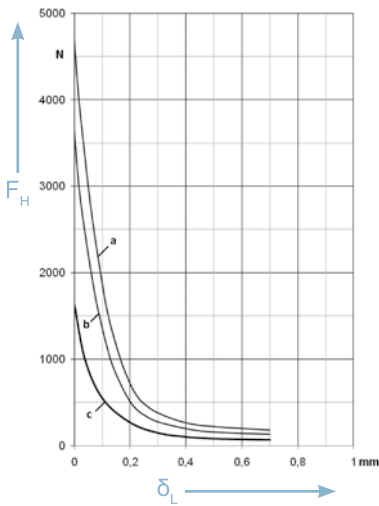
Layer thickness \triangleq Material thickness:
a = 1 mm b = 3 mm
c = 6 mm

10 31003A1



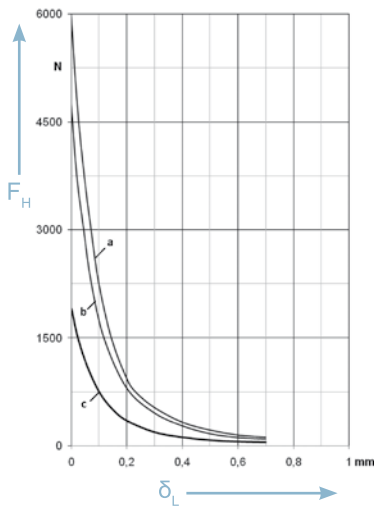
Layer thickness \triangleq Material thickness:
a = 2 mm b = 4 mm
c = 10 mm

10 31004A1



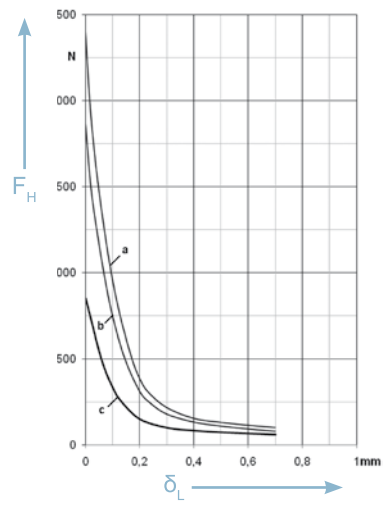
Layer thickness \triangleq Material thickness:
a = 8 mm b = 3 mm
c = 1.5 mm

10 31005A1



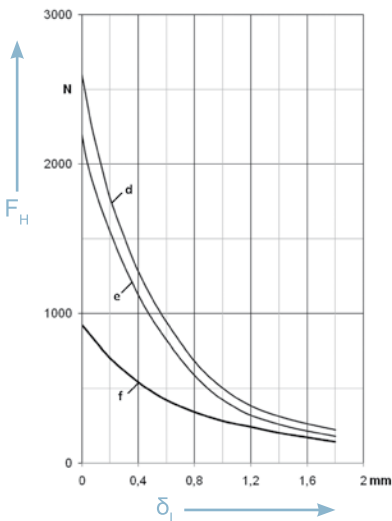
Layer thickness \triangleq Material thickness:
a = 8 mm b = 3 mm
c = 1.5 mm

10 31006A1



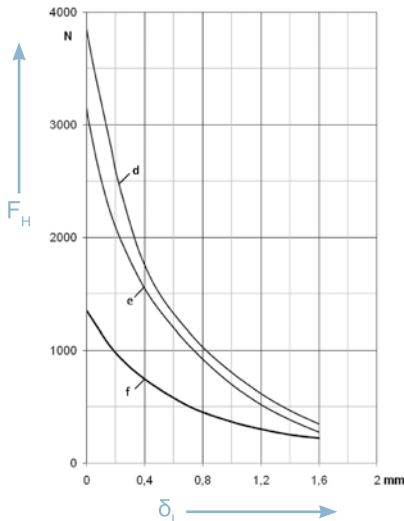
Layer thickness \triangleq Material thickness:
a = 8 mm b = 3 mm
c = 1.5 mm

10 31007A00



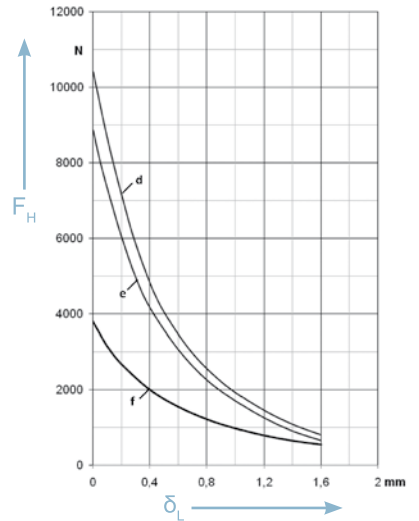
Layer thickness \triangleq Material thickness:
d = 10 mm e = 5 mm
f = 2.5 mm

10 31008A00



Layer thickness \triangleq Material thickness:
d = 10 mm e = 5 mm
f = 2.5 mm

10 31009A00



Layer thickness \triangleq Material thickness:
d = 10 mm e = 5 mm
f = 2.5 mm