



BINDER
MAGNETISM & ENGINEERING



Electromagnetic Holding Solenoid Series 10 331

This series excels by its extremely flat design and a through-hole for spindle or shaft attachment.

The connection is made by free braids on the rear of the housing. The magnet housing is zinc plated and the coil is vacuum potted. The mounting is achieved by means of one resp. several central bores which are accessible from the pole surface.

Application

This series is preferably used in the handling and robotics area, where installation space is narrow, flat and limited by the customer.

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

Advantages

- High holding force with low power consumption
- Extremely flat design

Technical Data

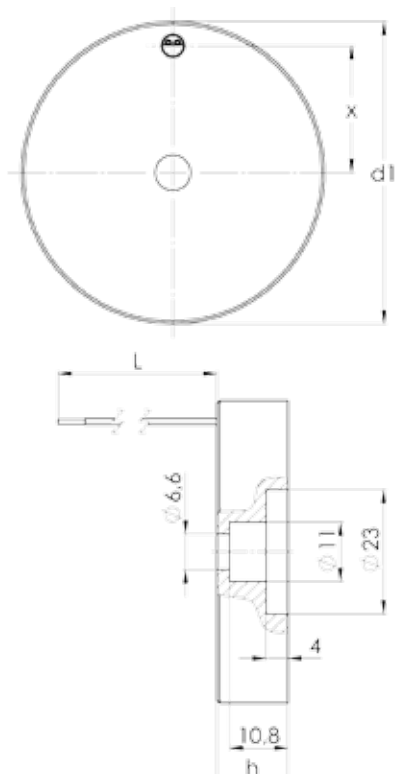
- Standard nominal voltage: 24 V DC
- Duty cycle: 100% ED
- Insulation class: E

Accessories

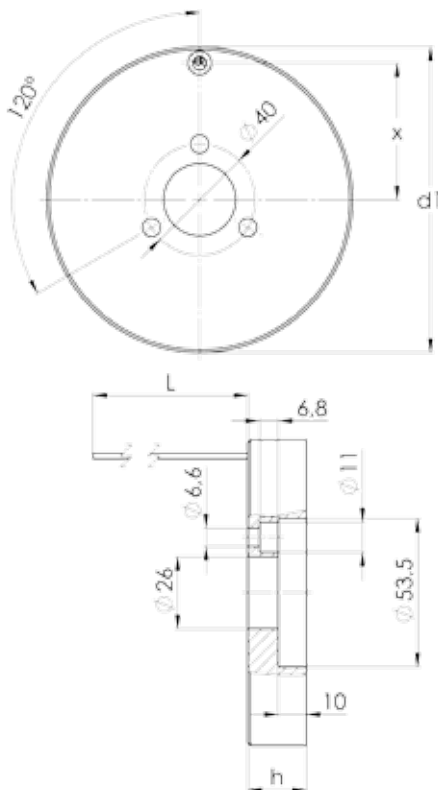
- Suitable anchor plates on request

Cross Sections

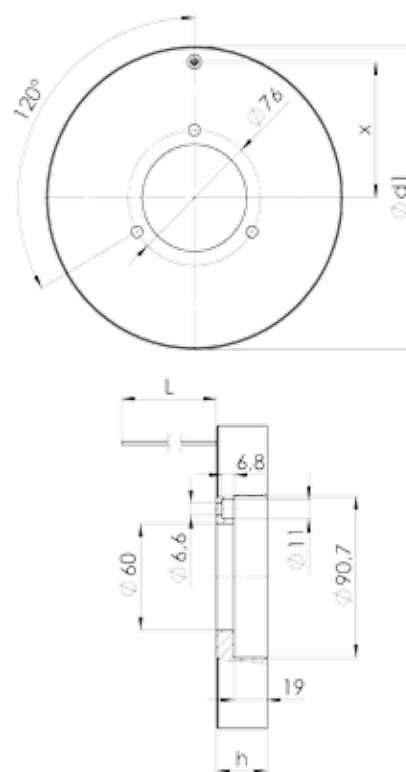
Type 10 33106A00



Type 10 33111A00



Type 10 33117A00



Technical Data

Designation	Diameter (d1) x height (h) [mm]	Max. holding force [N]	Nominal power [W]	Thickness counter plate [mm]	Thread (m) x depth (t) [mm]	Clearance (x) [mm]	Cable- / Lead length (L) [mm]	Weight [kg]
10 33106A00	56 x 13	750	7.1	4	11	24	300	0.20
10 33111A00	110 x 21	2,050	14.7	6	3 x 11	50	300	1.00
10 33117A00	170 x 29	5,000	31.4	10	3 x 11	77	300	3.00

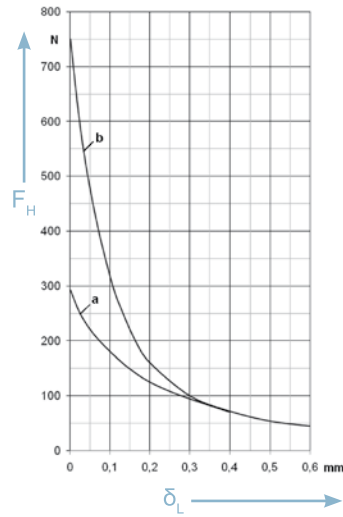


Special voltage configurations are available on request
+34 977 206937 or binder@binder-es.com

Holding Force Curves

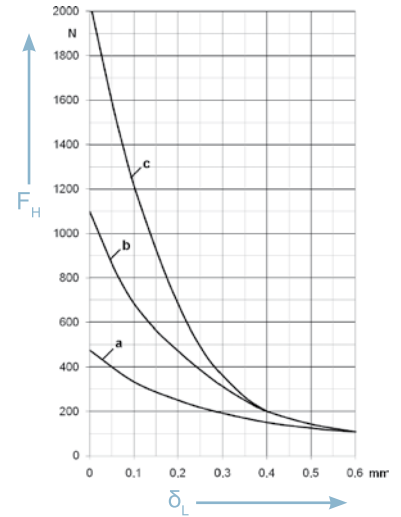
Holding forces F_H depending on air gap δ_L between holding solenoid and workpiece and on the indicated layer thickness of the counter plate. The values are valid for workpieces of material S235JR with 100% coverage of the holding surface, 90% of nominal voltage and warmed up condition (appr. 70 K excessive temperature without additional heat dissipation).

10 33106A00



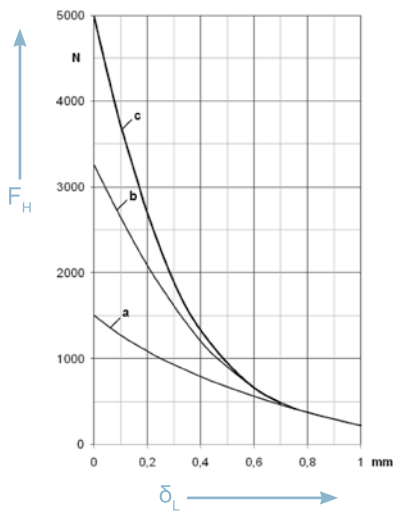
Layer thickness \triangleq Material thickness:
a = 1.5 mm b = 4 mm

10 33111A00



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

10 33117A00



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