

SAV 241.40

PERMANENT ELECTRO HOLDING MAGNETS

Electrically deactivated permanent magnets

APPLICATION

Because the permanent electro magnetic workholding system is active when the device is de-energised, these chucks are preferably used where long holding times are required and no holding force is required only for short periods or occasionally. They are also used as safety magnets in transport systems and lifting gear, as the load is reliably held during a power failure. To achieve the rated holding force, the steel surfaces of the contact side must be fully covered by the workpiece.

DESIGN

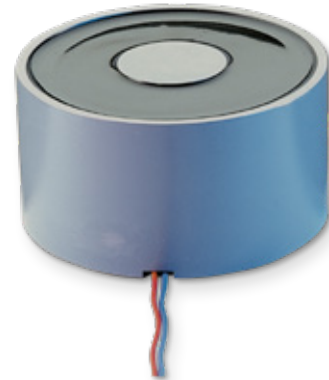
The chucks consist of a permanent magnet system for holding ferromagnetic workpieces and an excitation winding which neutralises the magnetic field on the contact surface when activated, allowing the workpiece to be removed or the load to be released.

Depending on the application, the applicable accident prevention regulations must be observed.

TECHNICAL DATA

The technical information (chapter 1.4) must be observed when using the devices.

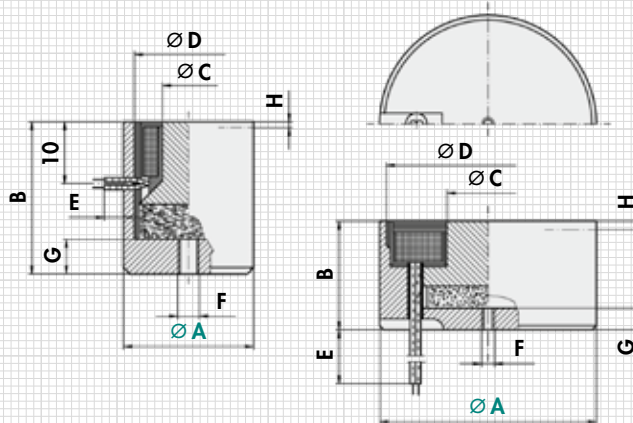
- Rated voltage: 24 V DC
- Insulation material class: E
- Protection rating: Device IP 65 (as per DIN 40050)
- Duty cycle: 25 % duty cycle with a cycle time of < 2 min or 40 % duty cycle with a cycle time of < 0.5 min



The relative duty cycle is:

$$\text{rel. duty cycle} = \frac{\text{duty cycle}}{\text{Cycle time}} \cdot 100 \%$$

A reliable deactivation of the permanent magnet system is achieved if the stated values for the duty cycle and cycle time are observed and at a rated voltage of +5 % or -10 %. This ensures reliable releasing of the magnetically held parts. The occurring residual force is then max. 3 % of the rated holding force. During continuous operation, this chuck is not thermally overloaded. The overtemperature of the excitation winding occurring during this process, however, increases the residual holding force.



mm								N	mm	W	H	H	kg
A	B	C	D	E	F	G	H	Rated holding force*	Optimum coverage thickness	Rated power	Inductance, occupied	Inductance, unoccupied	Weight
20	22	9.0	18.0	200	M 4	5	1	40	>2.5	3.6	0.11	0.80	0.04
35	28	11.2	33.0	200	M 4	5	2	160	>3.0	4.6	1.12	4.90	0.20
55	36	18.0	52.0	200	M 5	6	2	420	>4.5	9.0	0.82	4.65	0.50
70	45	24.0	65.6	200	M 8	8	2	720	>6.0	13.3	0.72	4.42	0.90
90	48	30.0	84.7	200	M 8	8	2	1200	>7.5	21.8	0.60	4.12	1.70
105	56	37.0	98.0	300	M 10	10	3	1600	>9.0	28.0	0.52	3.13	2.60
150	63	55.0	140.0	300	M 16	16	3	3500	>12.5	44.0	0.46	3.04	6.40

* The rated holding forces stated refer to 100 % coverage of the contact surface with a workpiece made of steel 1.0037, polished, and optimum coverage thickness.

ORDERING EXAMPLE

Designation	SAV no. - A
Permanent electro holding magnet	SAV 241.40 - 150