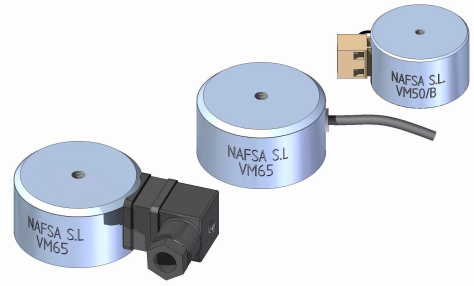


VM SERIE

The attraction and holding of magnetic pieces are made by permanent magnets mounted in the electromagnet, with these kind of products we avoid the risk of load falling down due to sudden power supply failure. The power supply on the coil allows to loose the load, when this power supply stops, the product recovers its initial force. When working with suspended loads, security norms must be respected.



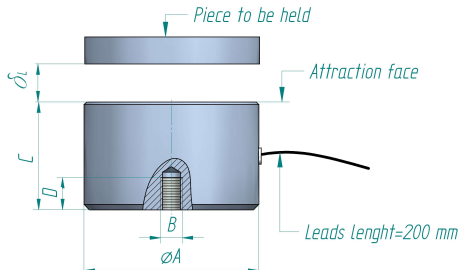
Protection rate: IP65
 Insulation class: B (130°C)
 Standard voltage: 24VDC
 Standard duty cycle: ED100%
 Different voltage, ED or size: Consult

Flying leads for every size
Supply possibilities under demand:
 .With campling screw from the VM25
 .With connector from the VM65.
 The connector (1) has 4 possibilities of direction (4x90°) and it is possible to be incorporated to the same diodes of rectification for alternating current connection (AC).

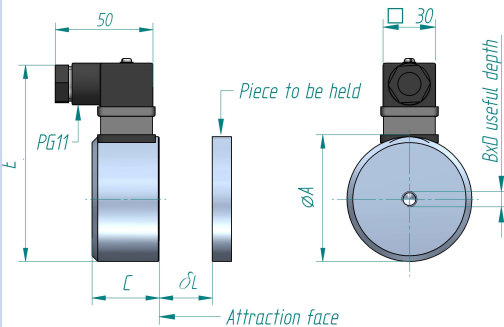
Table 1

TYPE	øA (-0,3)	B	C±0.1	D	E	F	Weight(Kg)
VM 20	20	M-3	25	5	---	---	0.04
VM 25	25	M-4	27	5	---	40	0.06
VM 30	30	M-4	28	5	---	45	0.17
VM 40	40	M-5	30	6	---	55	0.24
VM 50	50	M-5	35	6	---	65	0.44
VM 65	65	M-8	40	8	112	80	0.74
VM 80	80	M-8	45	8	127	95	1.42
VM 100	100	M-10	50	10	147	115	2.20
VM 150	150	M-16	65	15	197	165	6.60

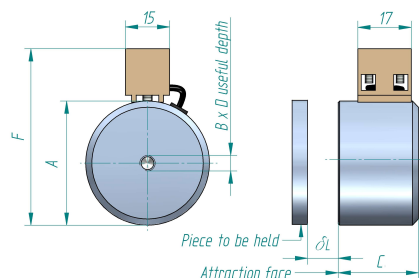
Flying leads: Ref: VM (type)-V - ED%
 Example: VM 50-24Vdc- ED100%



Connector (C): Ref: VM (type)/C-V-ED%
 Example: VM65/C-24Vdc ED100%
 Connection:
 see documentation that is enclosed with the material



Clamping screw (B): Ref: VM(type)/B-V-ED%
 Example: VM50/B-24Vdc-ED100%



Important: the clamping screw does not have to exceed measure D

Table 2

TYPE	P at 20°C (W)	Thickness of the piece to hold (mm)	Air gap (mm) δ_L			Magnetic Force Fm (N)
			0	0.1	0.2	
VM20	2.6	1	18	5	1	
		3	18	5	1	
		10	18	5	1	
VM25	4.3	1	20	7	3	
		3	23	7	4	
		10	29	10	7	
VM30	4.5	1	24	10	5	
		3	45	10	6	
		10	52	14	7	
VM40	7	1	39	29	22	
		3	108	57	29	
		10	128	58	37	
VM50	10	1	43	30	28	
		3	129	110	75	
		10	226	125	80	
VM65	14	1	44	35	25	
		3	266	203	140	
		10	374	238	145	
VM80	18	1	44	35	25	
		3	294	267	217	
		10	588	362	256	
VM100	25	1	45	35	25	
		3	299	282	262	
		10	1000	745	519	
VM150	45	1	93	75	60	
		3	415	350	320	
		10	2000	1500	1300	

The table 2 gives for each type of holding magnet, the values of the force of maintenance (Fm) based on the air gap, measured in the following conditions:

- Holding magnet without voltage.
 - Flat piece (3μ m rugosity) in A°St37, thickness as shown in the table 2 and dimensions are similar or bigger than the attraction face.
 - Room temperature 35°C.
 - Coil working on its regime temperature.
- At different conditions, the magnetic force(Fm) may decrease. The value of the magnetic remanence after the power supply stops is 5% of the holding force.
- .Earthing is recommended if the metallic parts are accessible.
 - .Technical explanation: see documents 1.4 & 1.5
 - .Under demand: any size, voltage, duty cycle etc can be manufactured.



When lifting or handling heavy loads a minimum security margin of 3 must be respected, the weight of the load cannot exceed 33% of the magnetic force.