

Other Eclipse Magnetics products

In addition to our range of Electromagnets we produce a range of high performance magnetic products for diverse applications.



Sub-micron filtration for industrial fluids



Workholding systems



Lifting and handling systems



Magnetic materials & assemblies



Foreign body removal - separation & detection systems



Heating system filters

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While every effort has been made to ensure the accuracy of the information in this publication please note that specifications may change without notice.



FM31278



A world leader in magnetic technology

Electromagnets

High performance electromagnets for hold and release applications



Ideal for use in applications such as:

- Machine tools
- Door locking / holding
- Feeder mechanisms
- Short stroke / high force operations
- Textile machinery
- Audio equipment
- Automation
- Office machines
- Grill locking
- Packaging machinery
- Remote hold / release
- Electronic equipment

**Armature
Plates
to suit**

Energise to hold electromagnets

Electric current required to turn the magnet ON.

Power is removed to turn the magnet OFF.

Sturdy bright nickel plated cylinder, passivated with body mounting.

High-quality permeable iron for low remanence.

Armature plates to suit.

Operating voltage 12VDC, 24VDC & 240VAC (with rectified plug connector)

Connector options Flying leads, two-pole connector and Hirschman connector

Mountings Threaded holes in magnet rear face

Finish Bright nickel plated with machined face

ED rating 100%

IP rating 54 (20 for the two-pole connector)

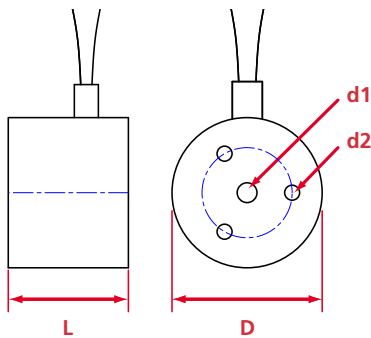


Two-pole connector

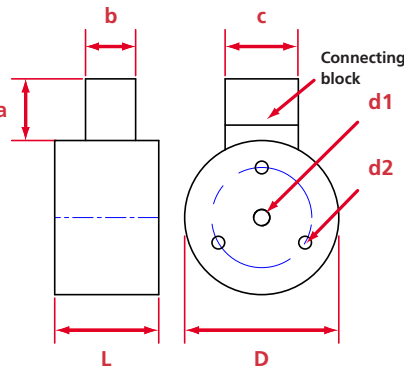
	Standard operating voltage						Air gap mm										
	240VAC		24VDC		12VDC		0	0.09	0.18	0.27	0.36	0.59	1.00	1.59	2.00	4.00	
	Product no.	Current mA	Product no.	Current mA	Product no.	Current mA	Pull force (+/- 10%) N										
Diameter mm	20		M52180/24VDC	100	M52180/12VDC	210	53	22	9	5	3	2	1	-	-	-	
	25		M52172/24VDC	90	M52172/12VDC	180	150	51	22	12	8	4	2	-	-	-	
	30		M52173/24VDC	140	M52173/12VDC	280	280	149	80	43	26	12	5	2	2	-	
	40		M52174/24VDC	230	M52174/12VDC	440	550	276	144	83	57	30	14	7	5	3	
	50	M52175/240VA	40	M52175/24VDC	240	M52175/12VDC	470	1000	655	442	282	187	87	37	24	19	6
	65	M52176/240VA	50	M52176/24VDC	340	M52176/12VDC	690	1670	1137	792	533	347	180	78	39	23	11
	80		M52183/24VDC	580	M52183/12VDC	1116	2000	1560	1117	715	567	283	130	6.7	3.7	2	
	100		M52184/24VDC	940	M52184/12VDC	1850	3600	2790	2230	1610	1360	1340	470	260	150	60	

20, 25, 30mm diameter
Free leads (500mm long)

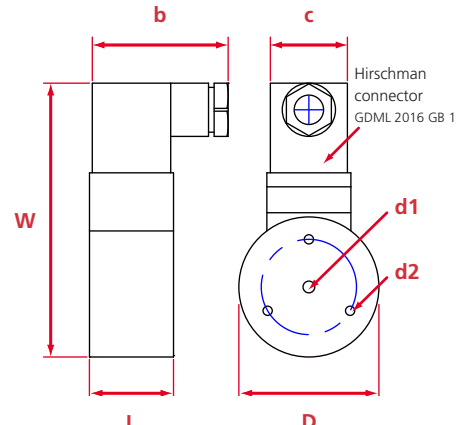
Leads: 1 red, 1 black
0.3mm square x 500mm long



40, 50, 65, 80, 100mm diameter,
12VDC & 24VDC
Two-pole connector



50, 65mm diameter 240VAC
Hirschman connector



Product no.	Dimension									PCD	Weight
	D	L	W	a	b	c	d1	d2			
mm											
12V and 24V units											
M52180/-----	20	18	-	-	-	-	M4	M3	14	36	
M52172/-----	25	20	-	-	-	-	M4	M3	15	66	
M52173/-----	30	24	-	-	-	-	M5	M3	18	108	
M52174/-----	40	27	-	16	13	19	M5	M4	26	210	
M52175/-----	50	30	-	16	13	19	M5	M4	34	364	
M52176/-----	65	35	-	16	13	19	M8	M5	40	710	
M52183/-----	80	38	-	16	13	19	M8	M6	50	1203	
M52184/-----	100	43	-	16	13	19	M10	M6	75	2200	
240V units											
M52175/240VA	50	30	98	-	50	30	M5	M4	34	408	
M52176/240VA	65	35	111	-	50	30	M8	M5	40	744	

Energise to release electromagnets

Electric current required to turn the magnet OFF.

Power is removed to turn the magnet ON.

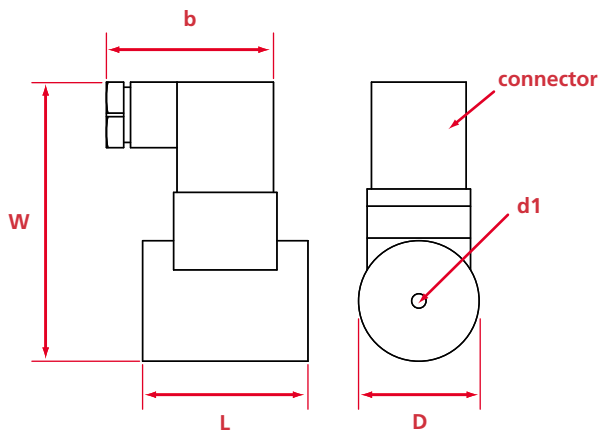
Sturdy bright nickel plated cylinder, passivated with body mounting.
High-quality permeable iron for low remanence.
Armature plates to suit.

Operating voltage	24VDC & 240VAC (with rectified plug connector)
Connector options	Hirschman connector
Mountings	Central machined hole in rear face of magnet
Finish	Bright nickel plated with machined face
IP rating	54
Duty Cycle	S2
Ambient working temp.	35°C



Hirschman connector

	Voltage		Air gap <i>mm</i>										
	240VAC		24 VDC		0	0.09	0.18	0.27	0.36	0.59	1.00	1.59	
	Product no.	Current <i>mA</i>	Product no.	Current <i>mA</i>	Pull force (+/- 10%) <i>N</i>								
Diameter	35	M52177/240VA	50	M52177/24VDC	240	250	91	51	32	23	17	-	-
<i>mm</i>	50	M52178/240VA	40	M52178/24VDC	350	500	317	208	151	116	73	47	28



Product no.	Dimension						Weight <i>g</i>
	D	L	b	W	connector	d1	
	<i>mm</i>						
M52177/24VDC	35	48	50	78	Hirschman style	M5	352
M52178/24VDC	50	63	50	94	Hirschman style	M5	874
M52177/240VA	35	48	50	81	Hirschman	M5	354
M52178/240VA	50	63	50	97	Hirschman	M5	880

Armature plates

To fit both types.



Product no.	Diameter <i>mm</i>	Height <i>mm</i>	Screw	To suit unit diameter <i>mm</i>	Weight <i>g</i>
M52171/25ARM	25	3	M3	25	15
M52171/30ARM	30	4	M4	30	30
M52171/40ARM	40	5	M4	35, 40	50
M52171/50ARM	50	6	M4	50	100
M52171/65ARM	65	8	M5	65	210
M52171/80ARM	80	10	M6	-	400
M52171/100ARM	100	12	M10	100	740

To achieve the optimum pull force 100% contact area must be achieved using the recommended armature plate. The force will be affected if other material specifications, thicknesses and surfaces are used, or if the armature fails to make positive contact over the full diameter of the face of the magnet. Where misalignment is likely to be an issue we recommend that an oversized armature plate is used to ensure 100% full contact, this however will reduce the stated pull force by approximately 10%.