

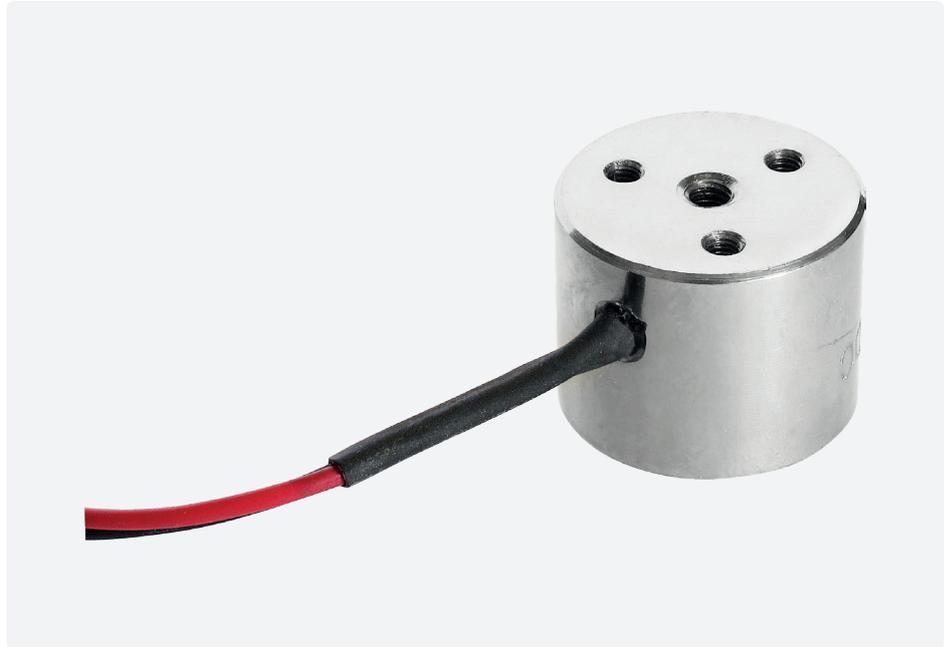
# Electro-Holding Magnet: 20mm



## Energise To Hold

### Technical Data

<b>Mountings</b>	Threaded holes in rear face
<b>Finish</b>	Bright nickel-plated with machined face
<b>Weight</b>	36g
<b>Typical Holding Force</b>	53N
<b>ED Rating</b>	100%
<b>IP Rating</b>	54
<b>Standard Operating Voltage</b>	12VDC M52180/12VDC 24VDC M52180/24VDC
<b>Current</b>	12V - 210mA 24V - 100mA
<b>Typical Power</b>	2.5W
<b>Connection Type</b>	12VDC & 24VDC Free Leads (500mm Long)

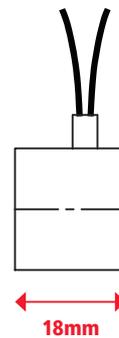


### Recommended Armature Plate

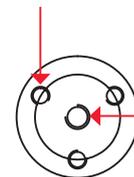
<b>Finish</b>	Bright nickel-plated
<b>Diameter</b>	25mm
<b>Height</b>	3mm
<b>Screw</b>	M3
<b>Part Number</b>	M52171/25ARM
<b>Weight</b>	15g



Leads:  
1 Red & 1 Black  
0.3mm Square  
500mm Long



3 Holes Tapped M3  
Coarse x 5mm Deep  
on 14mm P.C.D



Tapped M4 Coarse  
x 10mm Deep

Air Gap (mm)	Pull Force* (N)
0.00	53
0.09	22
0.18	9
0.27	5
0.36	3
0.59	2
1.00	1

### \* +/- 10% at room temperature

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%.

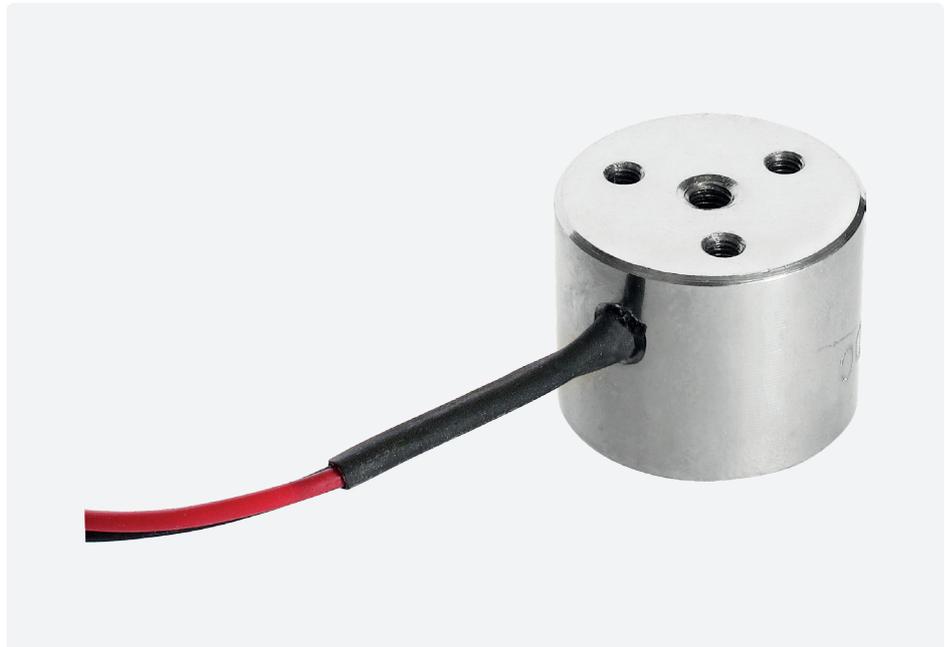
# Electro-Holding Magnet: 25mm



## Energise To Hold

### Technical Data

<b>Mountings</b>	Threaded holes in rear face
<b>Finish</b>	Bright nickel-plated with machined face
<b>Weight</b>	66g
<b>Typical Holding Force</b>	150N
<b>ED Rating</b>	100%
<b>IP Rating</b>	54
<b>Standard Operating Voltage</b>	12VDC M52172/12VDC 24VDC M52172/24VDC
<b>Current</b>	12V - 180mA 24V - 90mA
<b>Typical Power</b>	2W
<b>Connection Type</b>	12VDC & 24VDC Free Leads (500mm Long)

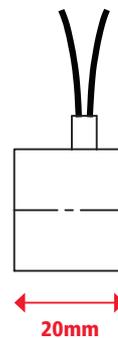


### Recommended Armature Plate

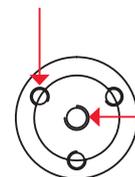
<b>Finish</b>	Bright nickel-plated
<b>Diameter</b>	25mm
<b>Height</b>	3mm
<b>Screw</b>	M3
<b>Part Number</b>	M52171/25ARM
<b>Weight</b>	15g



Leads:  
1 Red & 1 Black  
0.3mm Square  
500mm Long



3 Holes Tapped M3  
Coarse x 5mm Deep  
on 15mm P.C.D



Tapped M4 Coarse  
x 10mm Deep

Air Gap (mm)	Pull Force* (N)
0.00	150
0.09	51
0.18	22
0.27	12
0.36	8
0.59	4
1.00	2

### \* +/- 10% at room temperature

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.

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# Electro-Holding Magnet: 30mm

## Energise To Hold

### Technical Data

<b>Mountings</b>	Threaded holes in rear face
<b>Finish</b>	Bright nickel-plated with machined face
<b>Weight</b>	108g
<b>Typical Holding Force</b>	280N
<b>ED Rating</b>	100%
<b>IP Rating</b>	54
<b>Standard Operating Voltage</b>	12VDC M52173/12VDC 24VDC M52173/24VDC
<b>Current</b>	12V - 280mA 24V - 140mA
<b>Typical Power</b>	3.3W
<b>Connection Type</b>	12VDC & 24VDC Free Leads (500mm Long)

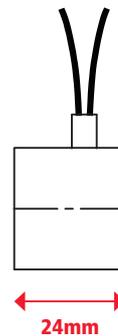


### Recommended Armature Plate

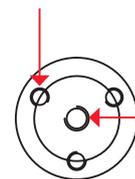
<b>Finish</b>	Bright nickel-plated
<b>Diameter</b>	30mm
<b>Height</b>	4mm
<b>Screw</b>	M4
<b>Part Number</b>	M52171/30ARM
<b>Weight</b>	30g



**Leads:**  
1 Red & 1 Black  
0.3mm Square  
500mm Long



**3 Holes Tapped M3  
Coarse x 5mm Deep  
on 18mm P.C.D**



**Tapped M5 Coarse  
x 10mm Deep**

Air Gap (mm)	Pull Force* (N)
0.00	280
0.09	149
0.18	80
0.27	43
0.36	26
0.59	12
1.00	5
1.59	2
2.00	2

### \* +/- 10% at room temperature

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%.

# Electro-Holding Magnet: 40mm



## Energise To Hold

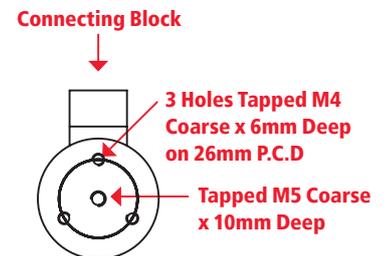
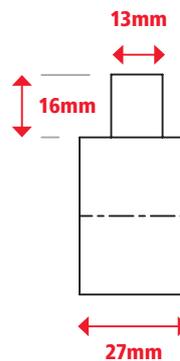
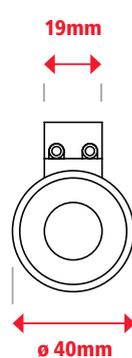
### Technical Data

<b>Mountings</b>	Threaded holes in rear face
<b>Finish</b>	Bright nickel-plated with machined face
<b>Weight</b>	210g
<b>Typical Holding Force</b>	550N
<b>ED Rating</b>	100%
<b>IP Rating</b>	20
<b>Standard Operating Voltage</b>	12VDC M52174/12VDC 24VDC M52174/24VDC
<b>Current</b>	12V - 440mA 24V - 230mA
<b>Typical Power</b>	5.28W
<b>Connection Type</b>	12VDC & 24VDC Two-pole connector



### Recommended Armature Plate

<b>Finish</b>	Bright nickel-plated
<b>Diameter</b>	40mm
<b>Height</b>	5mm
<b>Screw</b>	M4
<b>Part Number</b>	M52171/40ARM
<b>Weight</b>	50g



Air Gap (mm)	Pull Force* (N)
0.00	550
0.09	276
0.18	144
0.27	83
0.36	57
0.59	30
1.00	14
1.59	7
2.00	5
4.00	3

### \* +/- 10% at room temperature

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%.

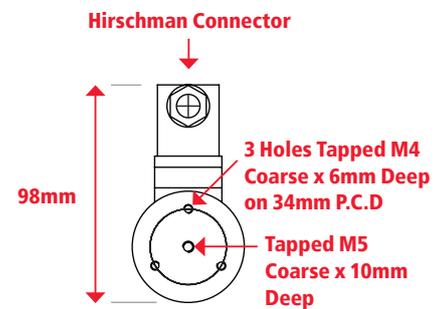
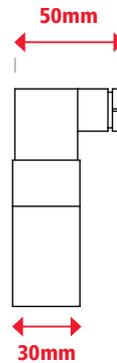
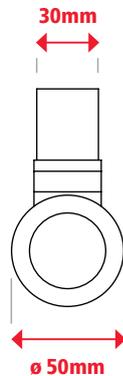
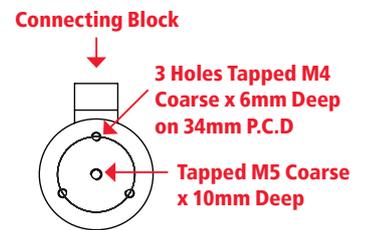
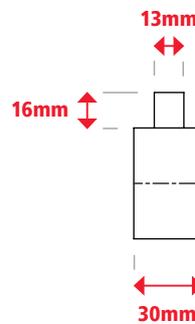
# Electro-Holding Magnet: 50mm



## Energise To Hold

### Technical Data

<b>Mountings</b>	Threaded holes in rear face
<b>Finish</b>	Bright nickel-plated with machined face
<b>Weight</b>	12V / 24V: 364g, 240V: 408g
<b>Typical Holding Force</b>	1000N
<b>ED Rating</b>	100%
<b>IP Rating</b>	20 - Two-pole connector 54 - Hirschman connector
<b>Standard Operating Voltage</b>	12VDC M52175/12VDC 24VDC M52175/24VDC 240VAC M52175/240VA
<b>Current</b>	12V - 470mA 24V - 240mA 240V - 40mA
<b>Typical Power</b>	12V & 24V - 5.64W 240V - 8.56W
<b>Connection Type</b>	12VDC & 24VDC: Two-pole connector 240VAC: Hirschman connector with Rectifier



### Recommended Armature Plate

<b>Finish</b>	Bright nickel-plated
<b>Diameter</b>	50mm
<b>Height</b>	6mm
<b>Screw</b>	M4
<b>Part Number</b>	M52171/50ARM
<b>Weight</b>	100g

Air Gap (mm)	Pull Force* (N)
0.00	1000
0.09	665
0.18	442
0.27	282
0.36	187
0.59	87
1.00	37
1.59	24
2.00	19
4.00	6

### \* +/- 10% at room temperature

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%.

# Electro-Holding Magnet: 65mm



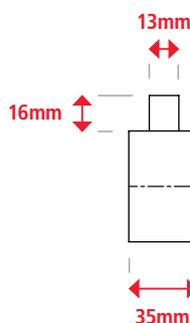
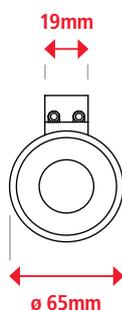
## Energise To Hold

### Technical Data

Mountings	Threaded holes in rear face
Finish	Bright nickel-plated with machined face
Weight	12V / 24V: 710g. 240V: 744g
Typical Holding Force	1670N
ED Rating	100%
IP Rating	20 - Two-pole connector 54 - Hirschman connector
Standard Operating Voltage	12VDC M52176/12VDC 24VDC M52176/24VDC 240VAC M52176/240VA
Current	12V - 690mA 24V - 340mA 240V - 50mA
Typical Power	12V & 24V - 8.28W 240V - 10.7W
Connection Type	12VDC & 24VDC: Two-pole connector 240VAC: Hirschman connector with Rectifier



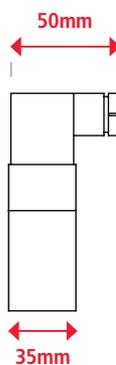
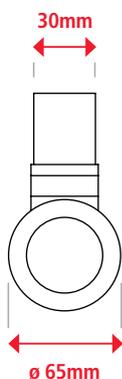
### 12VDC/24VDC



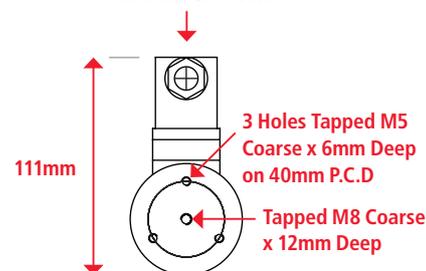
### Connecting Block



### 240VA



### Hirschman Connector



### Recommended Armature Plate

Finish	Bright nickel-plated
Diameter	65mm
Height	8mm
Screw	M5
Part Number	M52171/65ARM
Weight	210g

Air Gap (mm)	Pull Force* (N)
0.00	1670
0.09	1137
0.18	792
0.27	533
0.36	347
0.59	180
1.00	78
1.59	39
2.00	23
4.00	11

\* +/- 10% at room temperature

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.

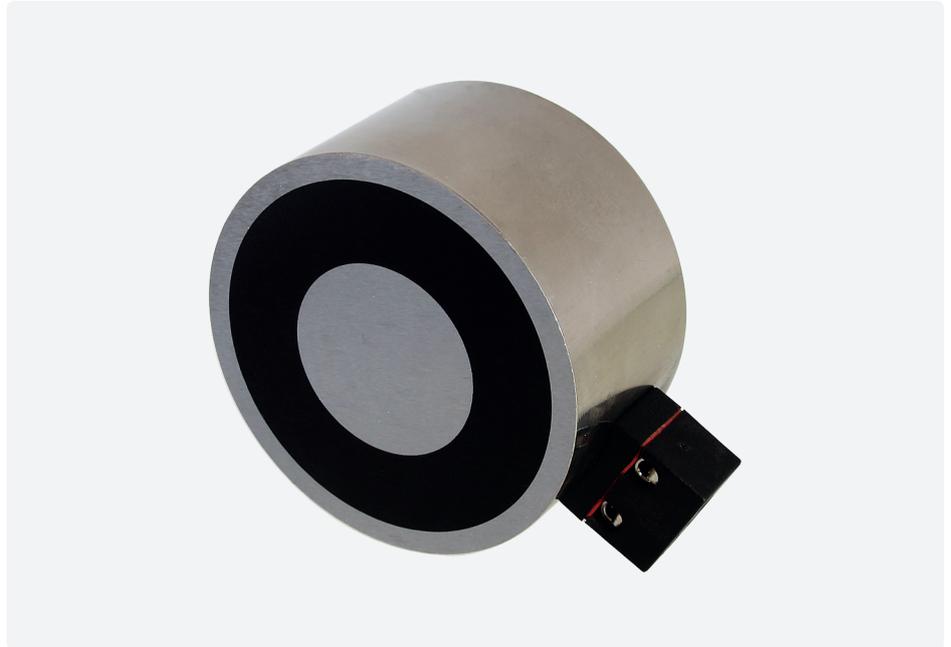
Where misalignment is likely to be an issue we recommend that an oversized armature plate is used to ensure 100% full contact, this however will reduce the stated pull force by approximately 10%.

# Electro-Holding Magnet: 80mm

## Energise To Hold

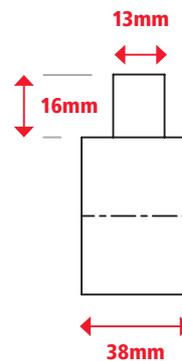
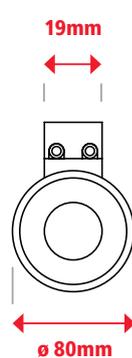
### Technical Data

<b>Mountings</b>	Threaded holes in rear face
<b>Finish</b>	Bright nickel-plated with machined face
<b>Weight</b>	1203g
<b>Typical Holding Force</b>	2000N
<b>ED Rating</b>	100%
<b>IP Rating</b>	20
<b>Standard Operating Voltage</b>	12VDC M52183/12VDC 24VDC M52183/24VDC
<b>Current</b>	12V - 1116mA 24V - 580mA
<b>Typical Power</b>	13W
<b>Connection Type</b>	12VDC & 24VDC Two-pole connector



### Recommended Armature Plate

<b>Finish</b>	Bright nickel-plated
<b>Diameter</b>	80mm
<b>Height</b>	10mm
<b>Screw</b>	M6
<b>Part Number</b>	M52171/80ARM
<b>Weight</b>	400g



### Connecting Block



Air Gap (mm)	Pull Force* (N)
0.00	2000
0.09	1560
0.18	1117
0.27	715
0.36	567
0.59	283
1.00	130
1.59	67
2.00	37
4.00	20

### \* +/- 10% at room temperature

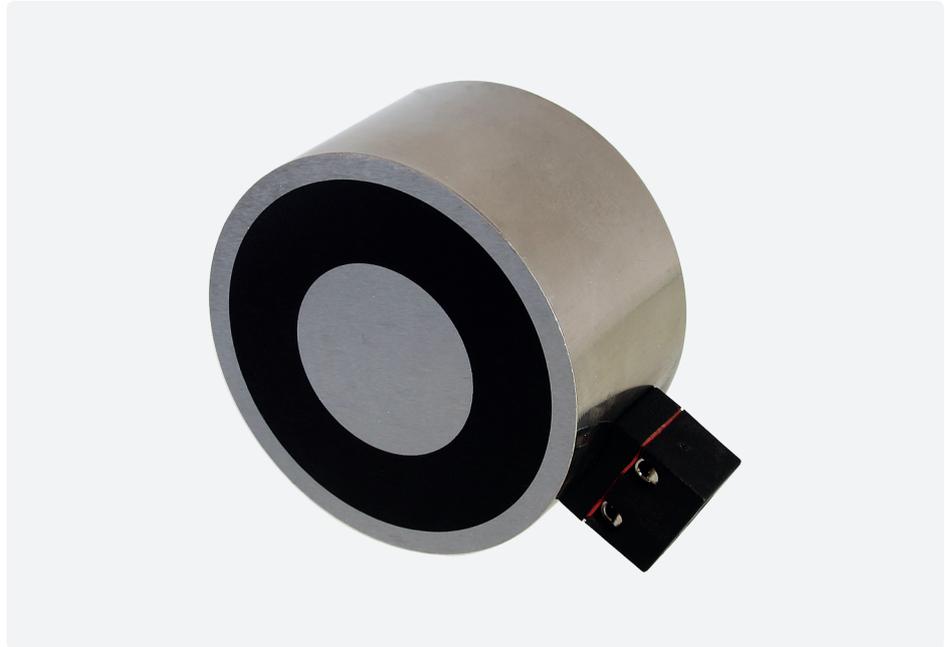
To achieve the optimum pull force 100% contact area must be achieved using the recommended armature plate. The force will be affected if other material specifications, thicknesses and surfaces are used, or if the armature fails to make positive contact over the full diameter of the face of the magnet.

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%.

## Energise To Hold

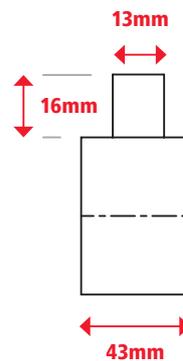
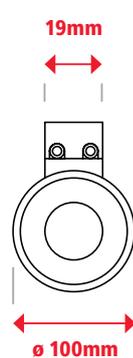
### Technical Data

<b>Mountings</b>	Threaded holes in rear face
<b>Finish</b>	Bright nickel-plated with machined face
<b>Weight</b>	2200g
<b>Typical Holding Force</b>	3600N
<b>ED Rating</b>	100%
<b>IP Rating</b>	20
<b>Standard Operating Voltage</b>	12VDC M52184/12VDC 24VDC M52184/24VDC
<b>Current</b>	12V - 1850mA 24V - 940mA
<b>Typical Power</b>	22W
<b>Connection Type</b>	12VDC & 24VDC Two-pole connector



### Recommended Armature Plate

<b>Finish</b>	Bright nickel-plated
<b>Diameter</b>	100mm
<b>Height</b>	12mm
<b>Screw</b>	M10
<b>Part Number</b>	M52171/100ARM
<b>Weight</b>	740g



### Connecting Block



Air Gap (mm)	Pull Force* (N)
0.00	3600
0.09	2790
0.18	2230
0.27	1610
0.36	1360
0.59	1340
1.00	470
1.59	260
2.00	150
4.00	60

### \* +/- 10% at room temperature

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%.