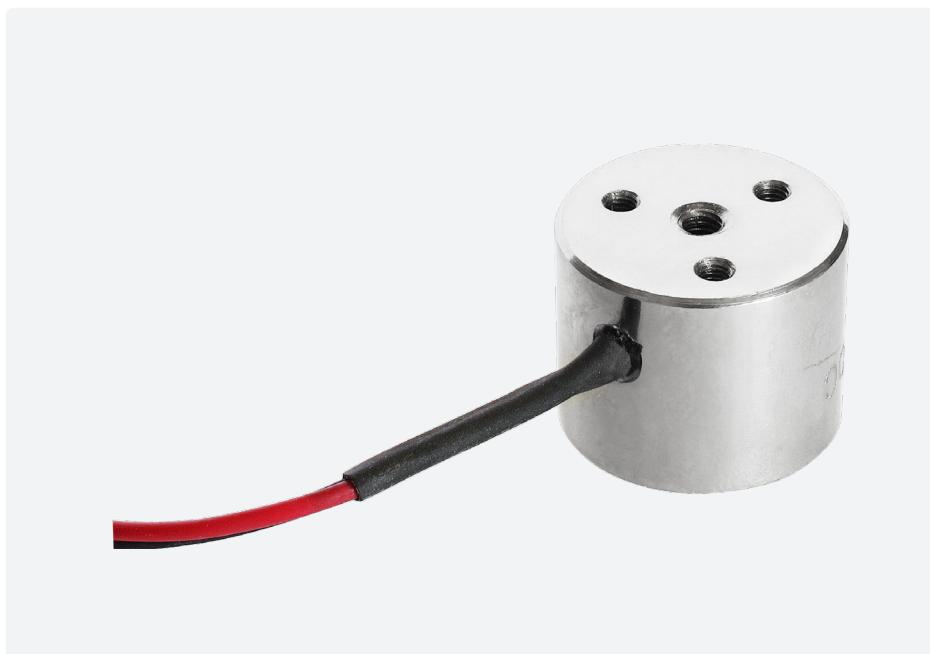


Energise-to-Hold Magnet: 20mm

Technical Data

Mountings	Threaded holes in rear face
Finish	Bright nickel-plated with machined face
Weight	36g
Typical Holding Force	5.2kg
ED Rating	100%
IP Rating	54
Standard Operating Voltage	12VDC M52180/12VDC 24VDC M52180/24VDC
Current	12V - 210mA 24V - 100mA
Typical Power	2.4 - 2.5W
Connection Type	12VDC & 24VDC Free Leads (500mm Long)

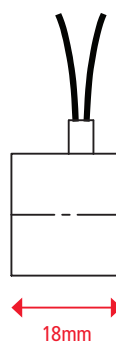


Recommended Armature Plate

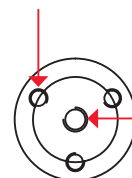
Finish	Bright nickel-plated
Diameter	25mm
Height	3mm
Screw	M3
Part Number	M52171/25ARM
Weight	15g



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

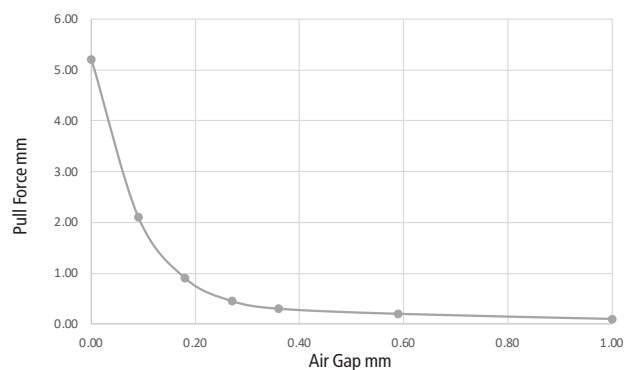


3 Holes Tapped M3
Coarse x 5mm Deep
on 14mm P.C.D.



Tapped M4 Coarse
x 10mm Deep

Air Gap (mm)	Pull Force* (kg)
0.00	5.20
0.09	2.10
0.18	0.90
0.27	0.45
0.36	0.30
0.59	0.20
1.00	0.10

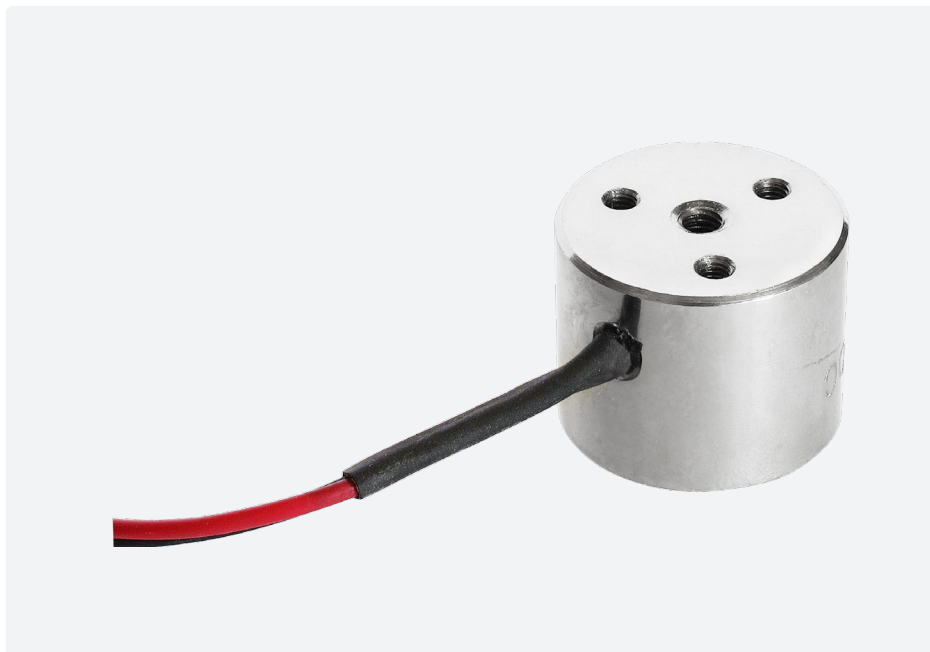


*** Expected performance variations.** The pull force of any energise-to-hold or energise-to-release magnet is not guaranteed and will vary according to the application, the power supply plus electrical circuit used, the environmental conditions, and also how hot the unit gets during operation. The values stated are typical maximum values at room temperature subject to an expected +/-10% variation. To achieve the optimum pull force, 100% contact area must be achieved; using the recommended armature plate is advised as the pull force is affected when other material specifications, thicknesses and surfaces are used, or if the armature fails to make full contact over the diameter of the magnet face. Where misalignment may be an issue, it is recommend that an oversized armature plate is used to ensure 100% contact, this however will reduce the stated pull force by approximately 10%. If being powered continuously for over two (2) hours, it is recommend that an energise-to-release magnet is used.

Energise-to-Hold Magnet: 25mm

Technical Data

Mountings	Threaded holes in rear face
Finish	Bright nickel-plated with machined face
Weight	66g
Typical Holding Force	15.0kg
ED Rating	100%
IP Rating	54
Standard Operating Voltage	12VDC M52172/12VDC 24VDC M52172/24VDC
Current	12V - 180mA 24V - 90mA
Typical Power	2.1 - 2.2W
Connection Type	12VDC & 24VDC Free Leads (500mm Long)

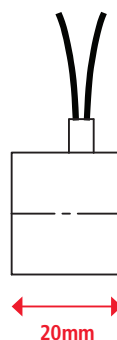


Recommended Armature Plate

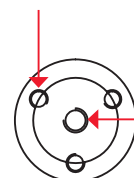
Finish	Bright nickel-plated
Diameter	25mm
Height	3mm
Screw	M3
Part Number	M52171/25ARM
Weight	15g



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

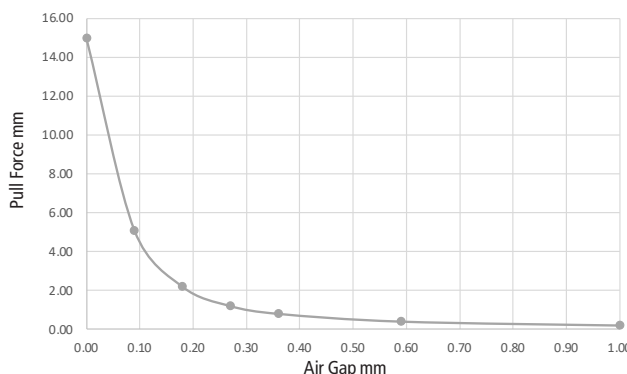


3 Holes Tapped M3
Coarse x 5mm Deep
on 15mm P.C.D.



Tapped M4 Coarse
x 10mm Deep

Air Gap (mm)	Pull Force* (kg)
0.00	15.00
0.09	5.10
0.18	2.20
0.27	1.20
0.36	0.80
0.59	0.40
1.00	0.20

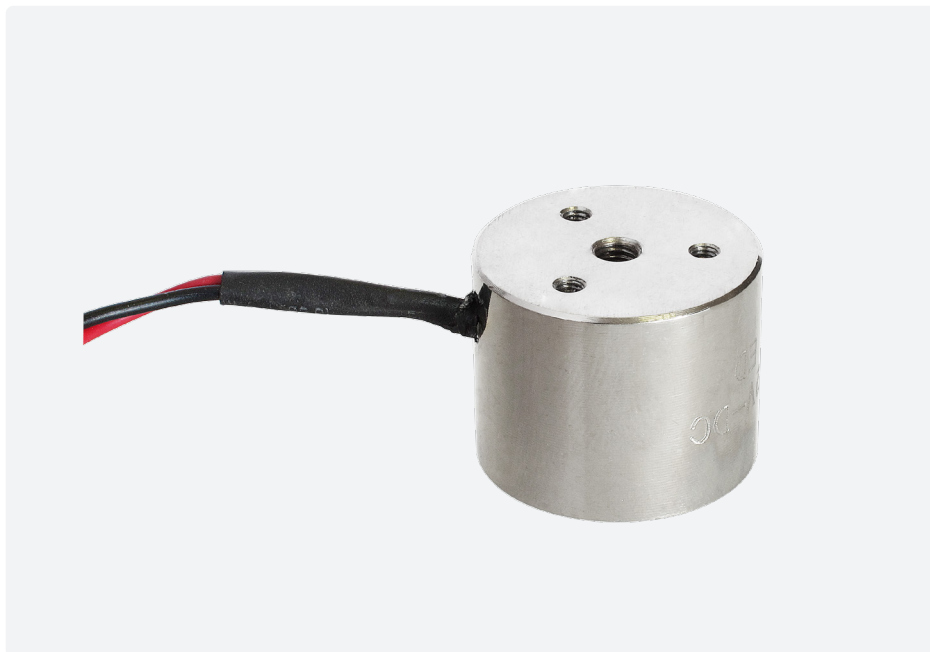


*** Expected performance variations.** The pull force of any energise-to-hold or energise-to-release magnet is not guaranteed and will vary according to the application, the power supply plus electrical circuit used, the environmental conditions, and also how hot the unit gets during operation. The values stated are typical maximum values at room temperature subject to an expected +/-10% variation. To achieve the optimum pull force, 100% contact area must be achieved; using the recommended armature plate is advised as the pull force is affected when other material specifications, thicknesses and surfaces are used, or if the armature fails to make full contact over the diameter of the magnet face. Where misalignment may be an issue, it is recommend that an oversized armature plate is used to ensure 100% contact, this however will reduce the stated pull force by approximately 10%. If being powered continuously for over two (2) hours, it is recommend that an energise-to-release magnet is used.

Energise-to-Hold Magnet: 30mm

Technical Data

Mountings	Threaded holes in rear face
Finish	Bright nickel-plated with machined face
Weight	108g
Typical Holding Force	28.0kg
ED Rating	100%
IP Rating	54
Standard Operating Voltage	12VDC M52173/12VDC 24VDC M52173/24VDC
Current	12V - 280mA 24V - 140mA
Typical Power	3.3W
Connection Type	12VDC & 24VDC Free Leads (500mm Long)

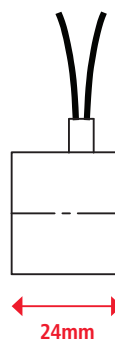


Recommended Armature Plate

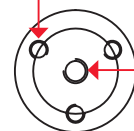
Finish	Bright nickel-plated
Diameter	30mm
Height	4mm
Screw	M4
Part Number	M52171/30ARM
Weight	30g



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

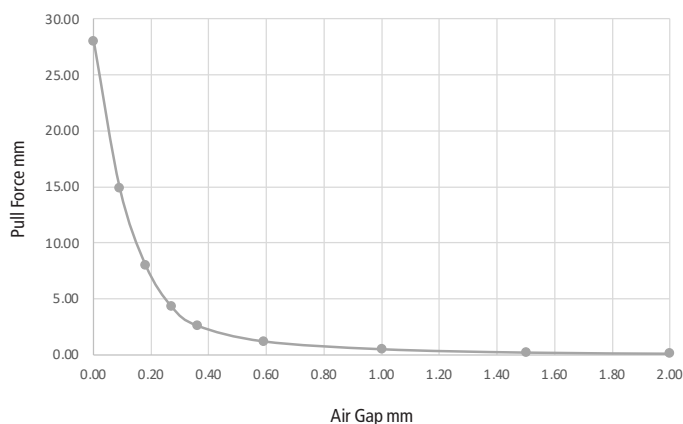


3 Holes Tapped M3
Coarse x 5mm Deep
on 18mm P.C.D.



Tapped M5 Coarse
x 10mm Deep

Air Gap (mm)	Pull Force* (kg)
0.00	28.00
0.09	14.90
0.18	8.00
0.27	4.30
0.36	2.60
0.59	1.20
1.00	0.50
1.50	0.20
2.00	0.10



*** Expected performance variations.** The pull force of any energise-to-hold or energise-to-release magnet is not guaranteed and will vary according to the application, the power supply plus electrical circuit used, the environmental conditions, and also how hot the unit gets during operation. The values stated are typical maximum values at room temperature subject to an expected +/-10% variation. To achieve the optimum pull force, 100% contact area must be achieved; using the recommended armature plate is advised as the pull force is affected when other material specifications, thicknesses and surfaces are used, or if the armature fails to make full contact over the diameter of the magnet face. Where misalignment may be an issue, it is recommend that an oversized armature plate is used to ensure 100% contact, this however will reduce the stated pull force by approximately 10%. If being powered continuously for over two (2) hours, it is recommend that an energise-to-release magnet is used.

Energise-to-Hold Magnet: 40mm

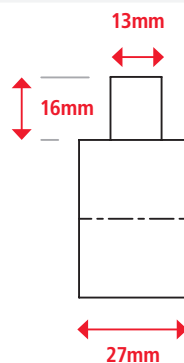
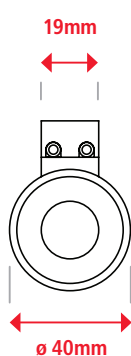
Technical Data

Mountings	Threaded holes in rear face
Finish	Bright nickel-plated with machined face
Weight	210g
Typical Holding Force	55.0 kg
ED Rating	100%
IP Rating	20
Standard Operating Voltage	12VDC M52174/12VDC 24VDC M52174/24VDC
Current	12V - 440mA 24V - 230mA
Typical Power	5.28 - 5.5W
Connection Type	12VDC & 24VDC Two-pole connector

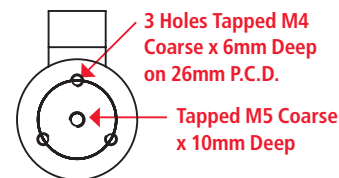


Recommended Armature Plate

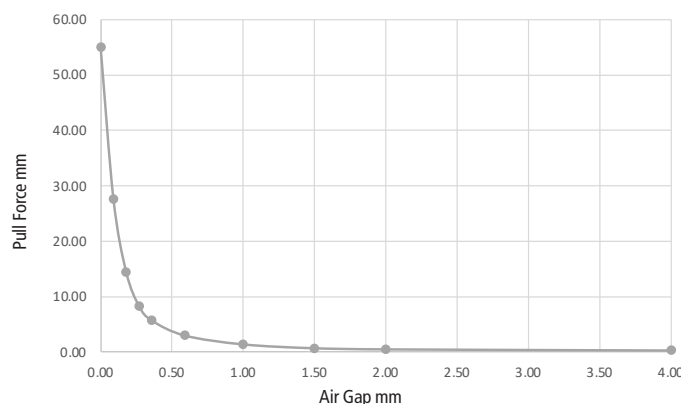
Finish	Bright nickel-plated
Diameter	40mm
Height	5mm
Screw	M4
Part Number	M52171/40ARM
Weight	50g



Connecting Block



Air Gap (mm)	Pull Force* (kg)
0.00	55.00
0.09	27.60
0.18	14.40
0.27	8.30
0.36	5.70
0.59	3.00
1.00	1.40
1.50	0.70
2.00	0.50
4.00	0.30



*** Expected performance variations.** The pull force of any energise-to-hold or energise-to-release magnet is not guaranteed and will vary according to the application, the power supply plus electrical circuit used, the environmental conditions, and also how hot the unit gets during operation. The values stated are typical maximum values at room temperature subject to an expected +/-10% variation. To achieve the optimum pull force, 100% contact area must be achieved; using the recommended armature plate is advised as the pull force is affected when other material specifications, thicknesses and surfaces are used, or if the armature fails to make full contact over the diameter of the magnet face. Where misalignment may be an issue, it is recommend that an oversized armature plate is used to ensure 100% contact, this however will reduce the stated pull force by approximately 10%. If being powered continuously for over two (2) hours, it is recommend that an energise-to-release magnet is used.

Energise-to-Hold Magnet: 50mm

Technical Data

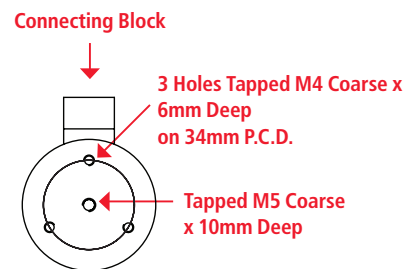
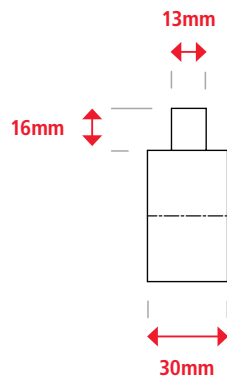
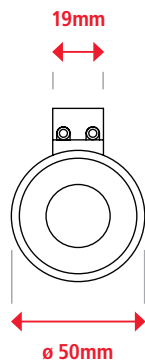
Mountings	Threaded holes in rear face
Finish	Bright nickel-plated with machined face
Weight	12V / 24V: 364g. 240V: 408g
Typical Holding Force	100.0kg
ED Rating	100%
IP Rating	20 - Two-pole connector 54 - Hirschmann connector
Standard Operating Voltage	12VDC M52175/12VDC 24VDC M52175/24VDC 240VAC M52175/240VA
Current	12V - 470mA 24V - 240mA 240V - 40mA
Typical Power	12V & 24V - 5.64 - 5.76W 240V - 8.56W
Connection Type	12VDC & 24VDC: Two-pole connector 240VAC: Hirschmann connector with Rectifier



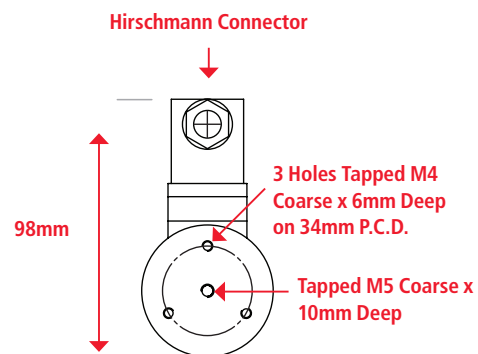
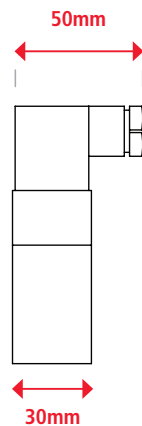
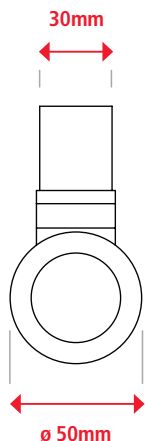
Recommended Armature Plate

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

12VDC/24VDC



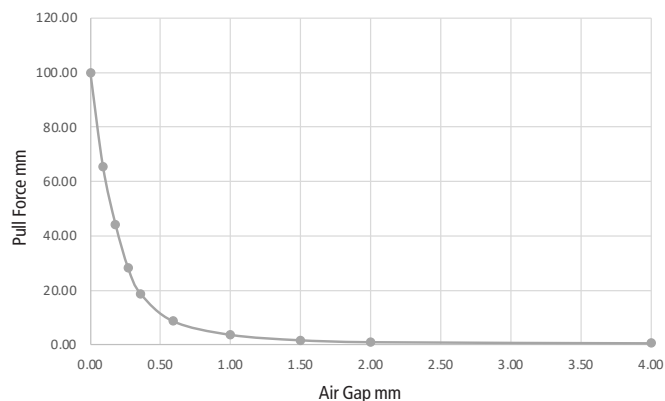
240VAC



Energise-to-Hold Magnet: 50mm

12VDC/24VDC/240VAC

Air Gap (mm)	Pull Force* (kg)
0.00	100.00
0.09	65.50
0.18	44.20
0.27	28.20
0.36	18.70
0.59	8.70
1.00	3.70
1.50	1.70
2.00	1.00
4.00	0.60



*** Expected performance variations.** The pull force of any energise-to-hold or energise-to-release magnet is not guaranteed and will vary according to the application, the power supply plus electrical circuit used, the environmental conditions, and also how hot the unit gets during operation. The values stated are typical maximum values at room temperature subject to an expected +/-10% variation. To achieve the optimum pull force, 100% contact area must be achieved; using the recommended armature plate is advised as the pull force is affected when other material specifications, thicknesses and surfaces are used, or if the armature fails to make full contact over the diameter of the magnet face. Where misalignment may be an issue, it is recommended that an oversized armature plate is used to ensure 100% contact, this however will reduce the stated pull force by approximately 10%. If being powered continuously for over two (2) hours, it is recommended that an energise-to-release magnet is used.

Energise-to-Hold Magnet: 65mm



Technical Data

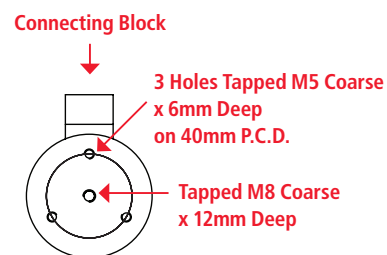
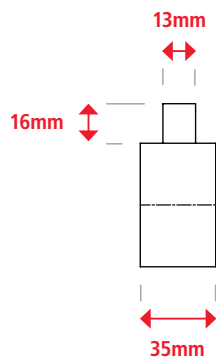
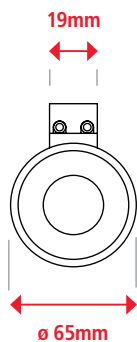
Mountings	Threaded holes in rear face
Finish	Bright nickel-plated with machined face
Weight	12V / 24V: 710g, 240V: 744g
Typical Holding Force	164.0kg
ED Rating	20 - Two-pole connector
IP Rating	54 - Hirschmann connector
Standard Operating Voltage	12VDC M52176/12VDC 24VDC M52176/24VDC 240VAC M52176/240VA
Current	12V - 690mA 24V - 340mA 240V - 50mA
Typical Power	12V & 24V - 8.28W 240V - 10.7W
Connection Type	12VDC & 24VDC: Two-pole connector 240VAC: Hirschmann connector with Rectifier



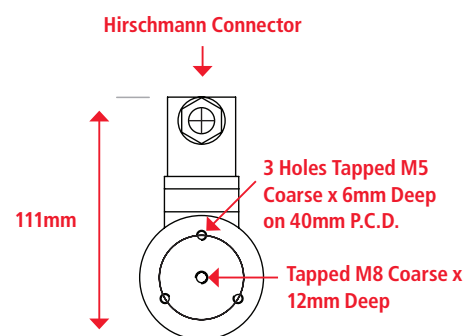
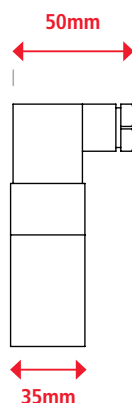
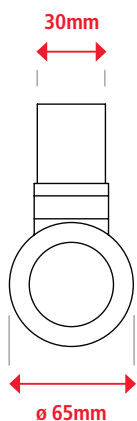
Recommended Armature Plate

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

12VDC/24VDC



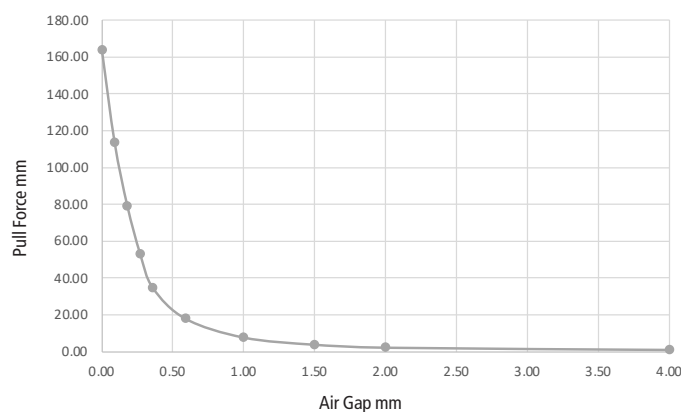
240VAC



Energise-to-Hold Magnet: 65mm

12VDC/24VDC/240VAC

Air Gap (mm)	Pull Force* (kg)
0.00	164.00
0.09	113.70
0.18	79.20
0.27	53.30
0.36	34.70
0.59	18.00
1.00	7.80
1.50	3.90
2.00	2.30
4.00	1.10



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Energise-to-Hold Magnet: 80mm



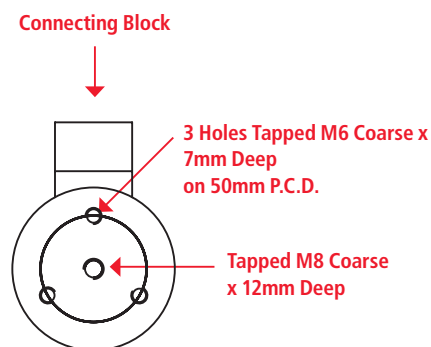
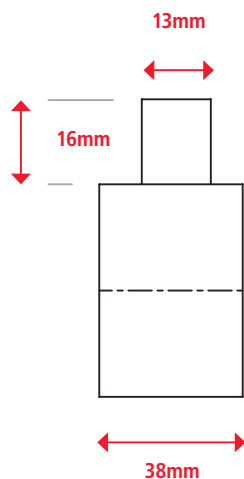
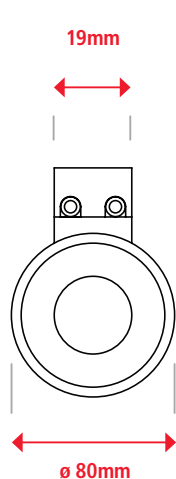
Technical Data

Mountings	Threaded holes in rear face
Finish	Bright nickel-plated with machined face
Weight	1203g
Typical Holding Force	228.0kg
ED Rating	100%
IP Rating	20
Standard Operating Voltage	12VDC M52183/12VDC 24VDC M52183/24VDC
Current	12V - 1116mA 24V - 580mA
Typical Power	13.4 - 13.9W
Connection Type	12VDC & 24VDC Two-pole connector



Recommended Armature Plate

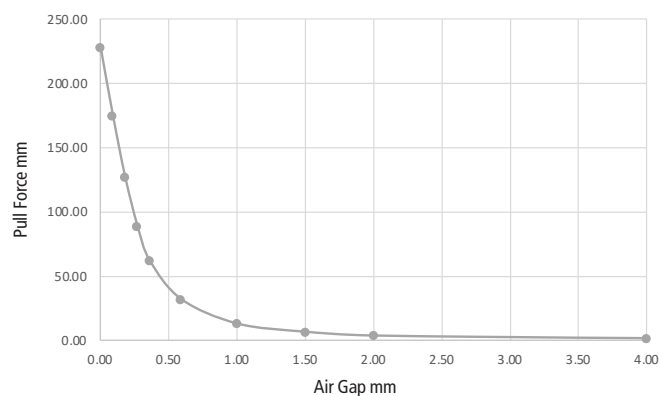
Finish	Bright nickel-plated
Diameter	80mm
Height	10mm
Screw	M6
Part Number	M52171/80ARM
Weight	400g



Energise-to-Hold Magnet: 80mm

12VDC/24VDC

Air Gap (mm)	Pull Force* (kg)
0.00	228.00
0.09	175.00
0.18	127.00
0.27	89.00
0.36	62.00
0.50	32.00
1.00	13.00
1.50	6.60
2.00	3.65
4.00	1.60
6.00	1.10
8.00	0.90



*** Expected performance variations.** The pull force of any energise-to-hold or energise-to-release magnet is not guaranteed and will vary according to the application, the power supply plus electrical circuit used, the environmental conditions, and also how hot the unit gets during operation. The values stated are typical maximum values at room temperature subject to an expected +/-10% variation. To achieve the optimum pull force, 100% contact area must be achieved; using the recommended armature plate is advised as the pull force is affected when other material specifications, thicknesses and surfaces are used, or if the armature fails to make full contact over the diameter of the magnet face. Where misalignment may be an issue, it is recommended that an oversized armature plate is used to ensure 100% contact, this however will reduce the stated pull force by approximately 10%. If being powered continuously for over two (2) hours, it is recommended that an energise-to-release magnet is used.

Energise-to-Hold Magnet: 100mm



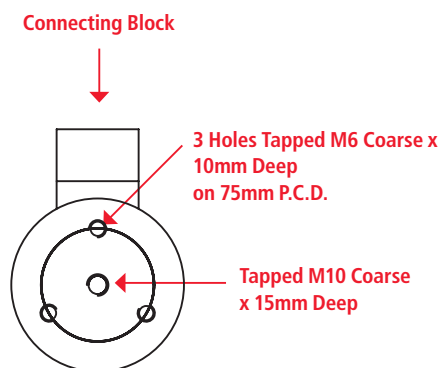
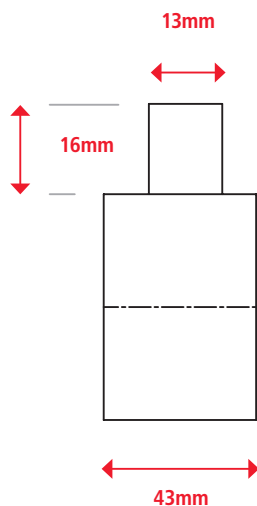
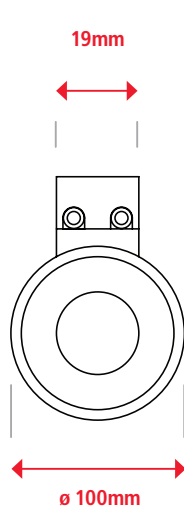
Technical Data

Mountings	Threaded holes in rear face
Finish	Bright nickel-plated with machined face
Weight	2200g
Typical Holding Force	360.0kg
ED Rating	100%
IP Rating	20
Standard Operating Voltage	12VDC M52184/12VDC 24VDC M52184/24VDC
Current	12V - 1850mA 24V - 940mA
Typical Power	22.2 - 22.6W
Connection Type	12VDC & 24VDC Two-pole connector



Recommended Armature Plate

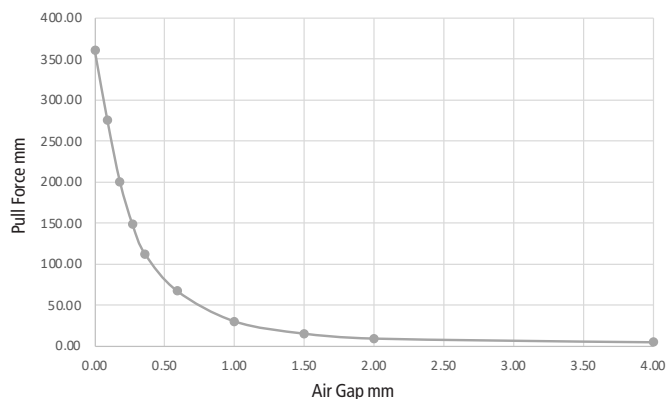
Finish	Bright nickel-plated
Diameter	100mm
Height	12mm
Screw	M10
Part Number	M52171/100ARM
Weight	740g



Energise-to-Hold Magnet: 100mm

12VDC/24VDC

Air Gap (mm)	Pull Force* (kg)
0.00	360.00
0.09	275.00
0.18	200.00
0.27	148.00
0.36	112.00
0.59	67.00
1.00	30.00
1.50	15.00
2.00	9.00
4.00	4.50
6.00	2.80
8.00	1.95



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