



## Electromagnetic Solenoid Valve

Improved Conductance

We are pleased to offer our Ideal Vacuum premium ElectroMAG series compact vacuum solenoid valves. These ElectroMAG vacuum valves are electromagnetic actuated, are easy to install, can be operated in any orientation, and vacuum can be applied to either of the two KF style quick vacuum flange connections. We offer ElectroMAG valves which operate on 24 VDC or 115 VAC input voltages and are designed for continuous operation in the open or closed positions.

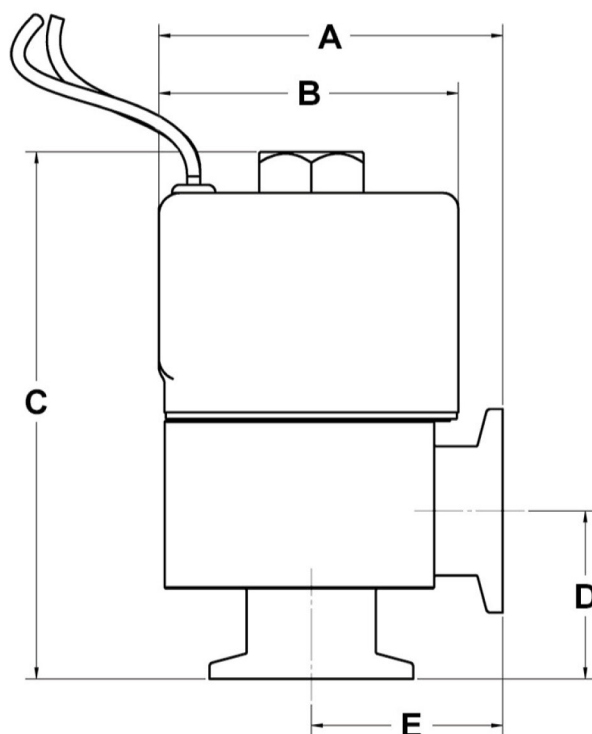
Our ElectroMAG solenoid valves have a spring-forced closure in a Normally Closed (NC) state being fast acting (valve closes in < 25 msec) when power is removed from the coil. These ElectroMAG valves can also be used to help protect the vacuum system against an in rush of atmospheric pressure when the vacuum system undergoes a power failure event.

- Low Cost Valves
- Rapid Spring-closed Actuator
- Maintain Pumping Speed
- KF Flange Connections
- Single Coil
- Service Free Operation
- System Protection
- Easy Installation
- Compact Construction
- Rapid Cycling



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ph: 505.872.0037 [www.idealvac.com](http://www.idealvac.com)

## electroMAG Solenoid Valves



Size	A	B	C	D	E
NW16					
	2.66	2.32	4.11	1.3	1.48
	(67.6)	(58.8)	(104.4)	(33)	(37.6)
NW25					
	2.66	2.32	4.8	1.3	1.48
	(67.6)	(58.8)	(103.7)	(33)	(37.6)

Dimensions: Inches (millimeters)

### SPECIFICATIONS

#### Vacuum Range

Cleaned Aluminum: atm to  $10^{-6}$  torr

Nickel-Plated: atm to  $10^{-9}$  torr

#### Leak Rate

$<1 \times 10^{-9}$  std cc/sec. (helium)

#### Operating Temperature

15° C min to 40° C maximum

#### Bakeable up to 100° C

Non-operating (closed) with coil removed

#### Pulse Voltage/Hold Voltage

34 Watts

#### Service Life up to

300,000 cycles

#### Conductance

NW16 – 2.6 l/s

NW25 – 3.8 l/s

#### Speed to Open/Close

Open – 50 ms

Close – 25 ms

#### Loss of Power

Valve closes (in  $< 25$  m/sec)

#### Solenoid Operating Temperature

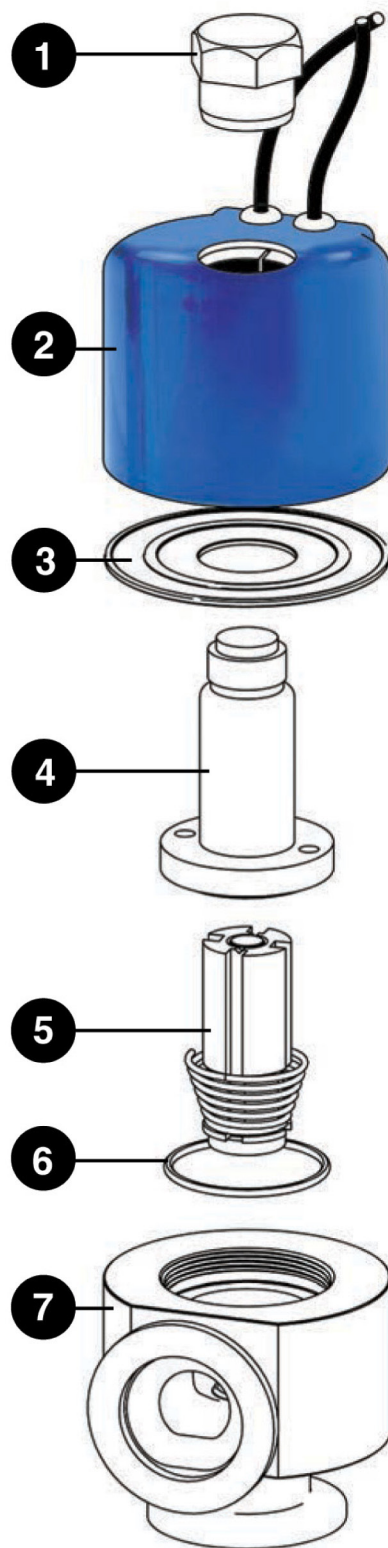
Up to 105° C



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## Exploded View of electroMAG Solenoid Valve

	PARTS
1	Retaining Nut
2	Coil Assembly
3	Washer
4	Plunger
5	Plunger Assembly
6	O-ring
7	Valve Body



Valves	Voltage Option	Part Number	Weight
KF-16			
Aluminum	115/120 VAC 60Hz	P107123	1.5 lbs.
Aluminum	24 VDC	P107124	1.5 lbs.
Nickel	115/120 VAC 60Hz	P107131	1.5 lbs.
Nickel	24 VDC	P107132	1.5 lbs.
KF-25			
Aluminum	115/120 VAC 60Hz	P107126	1.6 lbs.
Aluminum	24 VDC	P107125	1.6 lbs.
Nickel	115/120 VAC 60Hz	P107134	1.6 lbs.
Nickel	24 VDC	P107133	1.6 lbs.

Replacement Parts	Option	Part Number	Weight
Coil Assembly KF-16	115/120 VAC 60Hz	P107140	1.10 lbs.
Coil Assembly KF-16	24 VDC	P107139	1.10 lbs.
Coil Assembly KF-25	115/120 VAC 60Hz	P107141	1.10 lbs.
Coil Assembly KF-25	24 VDC	P107142	1.10 lbs.
Aluminum Valve Body	KF-16	P107138	0.40 lbs.
Aluminum Valve Body	KF-25	P107137	0.50 lbs.
Nickel Valve Body	KF-16	P107135	0.40 lbs.
Nickel Valve Body	KF-25	P107136	0.50 lbs.
Viton O-ring	KF-16	P107143	
Viton O-ring	KF-25	P107144	

### POTENTIAL APPLICATIONS

#### Rough Vacuum Pumping Systems

- Vacuum Drying Ovens
- Backing A Turbo Pump
- Food Processing
- Vacuum System Automation
- Load-Lock Systems
- Vacuum Drying Ovens
- Laboratory Dry System Evacuation
- Argon Ion Gas Laser Tube Evacuation

#### Medium Vacuum

- Electron Microscopes
- Laser Spectroscopy
- Optical Coatings Systems
- Chemical Process Applications
- Residual Gas Analyzer (RGA)
- Cryostat For Biological Systems
- Helium Leak Testing

#### High Vacuum

- Electron Tube Manufacturing
- High Energy Physics
- Surface Analysis (Auger Spectroscopy)
- Laser Induced Plasma Deposition
- Molecular Beam Epitaxy (MBE)
- Outer Space Simulation
- Thermal Vacuum Chambers

