ModMAG®
M-Series® | B-MAG Electromagnetic Flow Meters

Electromagnetic Flow Meters

Chemical Compatibility Chart

Table Key:

A = Recommended
B = Use with caution
X = Not recommended
Blank = No data available

	Hard/Soft Rubber	PTFE	Halar	316 Stainless Steel	Hastelloy C	Gold/ Platinum Plated	Tantalum	Platinum/ Rhodium
	Liners			Electrode Materials				
Acetaldehyde	X	A		A	A	A	A	A
Acetic acid (70% max)	X	A		A	A	A	A	A
Alumina slurry		X	A	X	A	X	A	A
Aluminium bicarbonate (50% max)		A				A	A	
Aluminium chloride (20% max)	B	A	A	B	A	A	A	
Aluminium fluoride	X	A	A	X	X	A	X	
Aluminium nitrate	B	A		X	X		X	A
Aluminium potassium sulfate	B	A	A		B	A	A	
Aluminium sulfate (50% max)	X	A	A	B	A	A	A	
Ammonium bicarbonate (50% max)	X	A				A	A	A
Ammonium bifluoride (50% max)	X	A	A	X	B	A	X	
Ammonium carbamate (50% max)	X	A			B			
Ammonium carbonate (50% max)	X	A	A		B	A	A	
Ammonium chloride (25% max)	A	A	A	B	B	A	A	A
Ammonium fluoride (10% max)	X	A	A	X		A	X	A
Ammonium hydroxide (30% max)	A	A	A	B	B	A	X	A
Ammonium nitrate	B	A	A	B	B	A	A	
Ammonium persulfate	X	A	A	X	X	A	A	
Ammonium phosphate	X	A	A	X		A	A	
Ammonium sulfate	B	A	A	X	A	A	A	
Aqua regia	X	A	A	X	X		A	A
Arsenic acid	B	A	A	X	X		A	A
Barium chloride (30% max)	A	A	A		B	A	A	
Barium hydroxide (50% max)	A	A	A	A	B	A	A	A
Barium sulfate		A	A	X	X	A	A	A
Beer		A	A	A	A	A	A	
Black liquor	X	A	A	A	B	A	X	
Boric acid (50%)	A	A	A	A	A	A	A	
Brine	A	A	A	A	A	A	A	
Cadmium chloride	B			X	X		A	B
Calcium bisulfite	A	A	X	A	X	A	A	
Calcium carbonate	A	A	A	A	B	A	A	
Calcium chlorate (30% max)	A	A	A	B	B	A	B	
Calcium chloride (50% max)	A	A	A	B	A	A	A	A
Calcium hydroxide (50% max)	B	A	A	B	A		A	
Calcium hypochlorite	B	A	A	B	X	A	A	
Calcium nitrate (10% max)	B	A	A	B	B	A	A	
Calcium sulfate (10% max)	B	A	A	A		A	A	
Carbonic acid (60% max)	B	A	A	A	X	A	A	
Caustic soda (50% max)	X	A	A	A	B	A	X	A
Chlorine dioxide (15% max)	X	A		B			A	
Chlorine water (2500 ppm)	A	A	A	B	A	A	A	
Chromic acid (50% max)	X	A	A	X	B	A	A	

Badger Meter

MAG-AS-03317-EN-02 (August 2021)

Application Data Sheet

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	Hard/Soft Rubber	PTFE	Halar	316 Stainless Steel	Hastelloy C	Gold/ Platinum Plated	Tantalum	Platinum/ Rhodium
	Liners			Electrode Materials				
Chromium sulfate				B	B		A	A
Citric acid	A	A	A	A	A	A	A	
Clay slurry	A	A		A	A	A	A	
Coffee extract		A		A	A	A	A	
Cola syrup		A		A	A	A	A	
Copper chloride (50% max)		A	A		A		A	
Copper cynide		A	A	B	B		A	A
Copper nitrate (50% max)		A	A	B	X	A	A	
Copper sulfate (70% max)		A	A	B	A	A	A	
Copper sulfide		A		B	B		A	A
Cupric chloride	A	A	A	X	X	A	A	
Ferric chloride (50% max)	A	A	A	X	B	A	A	X
Ferric nitrate (10% max)	A	A	A	B	X	A	A	
Ferric sulfate (10% max)	A	A	A	X	B	A	A	A
Ferrous chloride (10% max)	A	A	A	X	X		A	A
Ferrous sulfate (50% max)	A	A	A	B	X	A	A	
Fluoroboric acid			B	X		X	A	
Fluosilicic acid	A	A	A	B	X	A	X	A
Formaldehyde (35% max)	B	A	A	A	B	A	A	
Formic acid (80%)	X	A	A	X	A	A	A	A
Fruit juices	X	A	A	A	A	A	A	
Glycerin	A	A	A	A		A	A	
Green liquor		A			B	A	A	
Hydrobromic acid (50%)			A	X	X		A	X
Hydrochloric acid (amb. temp. 37%)	B	A	A	X	X	A	A	A
Hydrocyanic acid (10% max)	B	A	A	B		A	A	A
Hydrofluoric acid (70% max)	X	A	A	X	X	A	X	X
Hydrogen cyanide		A		A	B			A
Hydrogen peroxide (50% max)	B	A	A	B	A		A	A
Hypochlorous acid	X	A	A	X	X	A	A	A
Latex	A	A		A		A	A	
Lead nitrate (60% max)	B	A	A	B	B	A	A	
Lime slurry (calcium oxide)	X	A	A	A	A	A	A	
Lithium chloride	A		B	A	A	A		
Magnesium carbonate (10% max)		A	A	B	B		A	
Magnesium chloride (40% max)	B	A	A	B	A		A	A
Magnesium nitrate	B	A	A	B	B		A	
Magnesium sulfate (40% max)	B	A	A	A	A	A	A	A
Mercuric chloride (60% max)	A	A	A	X	X	A	A	A
Milk	X	A	A	A		A	A	
Molasses	X	A	A	A		A		
Monomers				A				
Nickel chloride (20% max)	A	A	A	B	X		A	
Nickel nitrate (10% max)	A	A	A	B	B		A	
Nickel sulfate (20% max)	A	A	A	B	B		A	
Nitric acid (amb temp)	X	A	A	X	X	A	A	A
Oleum	X	A	A		B	A	X	
Oxalic acid	X	A	A	B	B	A	A	
Phosphoric acid (85% max)	B	A	A	B	X	A	A	A
Photographic emulsion	A	A	B			A		
Polymers				A				

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	Hard/Soft Rubber	PTFE	Halar	316 Stainless Steel	Hastelloy C	Gold/ Platinum Plated	Tantalum	Platinum/ Rhodium
	Liners			Electrode Materials				
Potassium bicarbonate (30% max)	A	A		A	B		A	A
Lead nitrate (60% max)	B	A	A	B	B	A	A	
Lime slurry (calcium oxide)	X	A	A	A	A	A	A	
Lithium chloride	A		B	A	A	A		
Magnesium carbonate (10% max)		A	A	B	B		A	
Magnesium chloride (40% max)	B	A	A	B	A		A	A
Magnesium nitrate	B	A	A	B	B		A	
Magnesium sulfate (40% max)	B	A	A	A	A	A	A	A
Mercuric chloride (60% max)	A	A	A	X	X	A	A	A
Milk	X	A	A	A		A	A	
Molasses	X	A	A	A		A		
Monomers				A				
Nickel chloride (20% max)	A	A	A	B	X		A	
Nickel nitrate (10% max)	A	A	A	B	B		A	
Nickel sulfate (20% max)	A	A	A	B	B		A	
Nitric acid (amb temp)	X	A	A	X	X	A	A	A
Oleum	X	A	A		B	A	X	
Oxalic acid	X	A	A	B	B	A	A	
Phosphoric acid (85% max)	B	A	A	B	X	A	A	A
Photographic emulsion	A	A	B			A		
Polymers				A				
Potassium bicarbonate (30% max)	A	A		A	B		A	A
Potassium carbonate	A	A	A	B	A	A	A	A
Potassium chloride (30% max)	A	A	A	A	A		A	A
Potassium dichromate (60% max)	A	A	A	A	B	A	A	
Potassium hydroxide (50% max)	X	A	A	B	B	A	B	A
Potassium hypochlorite (40% max)	X	A		X	B		B	
Potassium nitrate (80% max)	A	A		B	A		B	A
Potassium permangante (10% max)	B	A	A	B	B		B	
Potassium persulfate (10% max)	X	A	A	A	X	A	A	
Potassium sulfate (20% max)	A	A	A	A	A	A	A	
Potassium sulfide (10% max)	A	A		B			B	
Salicylic acid	X	A		B		A	A	
Sea water	A	A		A		A		
Sewage, raw	A	A		A	A	A	A	
Silver nitrate (50% max)	A	A	A	B	B		B	
Sludge, activated	A	A		A		A	A	
Potassium carbonate	A	A	A	B	A	A	A	A
Potassium chloride (30% max)	A	A	A	A	A		A	A
Potassium dichromate (60% max)	A	A	A	A	B	A	A	
Potassium hydroxide (50% max)	X	A	A	B	B	A	B	A
Potassium hypochlorite (40% max)	X	A		X	B		B	
Potassium nitrate (80% max)	A	A		B	A		B	A
Potassium permangante (10% max)	B	A	A	B	B		B	
Potassium persulfate (10% max)	X	A	A	A	X	A	A	
Potassium sulfate (20% max)	A	A	A	A	A	A	A	
Potassium sulfide (10% max)	A	A		B			B	
Salicylic acid	X	A		B		A	A	
Sea water	A	A		A		A		
Sewage, raw	A	A		A	A	A	A	
Silver nitrate (50% max)	A	A	A	B	B		B	

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	Hard/Soft Rubber	PTFE	Halar	316 Stainless Steel	Hastelloy C	Gold/ Platinum Plated	Tantalum	Platinum/ Rhodium
	Liners			Electrode Materials				
Sludge, activated	A	A		A		A	A	
Potassium permangante (10% max)	B	A	A	B	B		B	
Potassium persulfate (10% max)	X	A	A	A	X	A	A	
Potassium sulfate (20% max)	A	A	A	A	A	A	A	
Potassium sulfide (10% max)	A	A		B			B	
Salicylic acid	X	A		B		A	A	
Sea water	A	A		A		A		
Sewage, raw	A	A		A	A	A	A	
Silver nitrate (50% max)	A	A	A	B	B		B	
Sludge, activated	A	A		A		A	A	
Sludge, primary	A	A		A	A	A	A	
Soap, solutions	A	A	A	A	A	A		
Sodium acetate	A	A	A	B	A	A	A	A
Sodium bicarbonate (20% max)	A	A	A	A	A	A	A	A
Sodium bisulfate (40% max)	A	A	A	B	X	A	A	
Sodium bisulfite (40% max)	A	A	A	B	B	A	A	
Sodium borate	A	A			B		B	
Sodium bromide	A	A	A	B	X		A	
Sodium carbonate	A	A	A	A	A	A	B	A
Sodium chlorate (40% max)	A	A	A	B	A		A	A
Sodium chloride (30% max)	A	A	A	B	B	A	A	A
Sodium chromate	A	A		A	A	A	A	A
Sodium cyanide	B	A	A	B	X	A	A	X
Sodium hydroxide (10% max)	X	A	A	A	B	A	X	A
Sodium hydroxide (50% max)	X	A	A	A	B	A	X	A
Sodium hypochlorite (20% max)	A	A	A	X	A	A	A	A
Sodium nitrate (40% max)	A	A	A	A	B	A	A	A
Sodium nitrite (40% max)	A	A	A	A	A	A	A	A
Sodium phosphate	B	A	A	B	A	A	A	
Sodium phosphate (tri-basic)	A	A		A	A	A	A	
Sodium silicate	B	A	A	A	B	A	A	
Sodium sulfate (30% max)	B	A	A	B	B	A	A	A
Sodium sulfide (40% max)	B	A	A	B	X	A	A	A
Sodium sulfite (30% max)	A	A	A	A	X	A	A	A
Sulfuric acid (1-20%)	X	A	A	A	A	A	A	A
Sulfuric acid (21-40%)	X	A	A	B	A	A	A	A
Sulfuric acid (41-70%)	X	A	A	X	A	A	A	A
Sulfuric acid (71-100%)	X	A	A	X	A	A	A	A
Sulfurous acid	X	A	A	B	B	A	A	A
Sugar juice	A	A		A	A	A	A	
Tannic acid	B	A	A	A		A	A	
Tartaric acid	A	A	A	A	A	A	A	
Titanium dioxide	B	A		A	A	A	A	
Trisodium phosphate	A	A	A		A	A	A	
Urea (50% max)	B	A	A	B				
Water, clean or dirty	A	A	A	A	A	A	A	
White liquor	B	A	A	A	X	A	X	
Zinc chloride (20% max)	X	A	A	X	B	B	A	A
Zinc sulfate (30% max)	B	A	A	B	B	A	A	

Control. Manage. Optimize.

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