

# Magnetic Floats

➤ The MS magnetic float products are comprised of buoyant materials containing a built-in magnet(s) and are used in conjunction with our LS Level Sensor series. Choose from various styles, dimensions and buoyant materials such as Polyamide (PA), Polypropylene (PP), Nitrile Butadiene Rubber (NBR) and Stainless Steel (V2A) depending on your application.



Part Description: **MS00-XXX**

Series	Options
01, 02, 03, 04, 06, 07, 08, 09, 10	NBR, PA, PP, S

Series	Float Material	Outside Dia. mm (inches)	Inside Dia. mm (inches)	Height mm (inches)	Magnet Width (mm)*	Magnet Height (mm)
MS01-NBR	NBR	24.5 (0.964)	8.0 (0.314)	19.0 (0.748)	LS01, LS02, LS02-S LS04, LS05	Excellent resistance to petroleum derived liquids
MS02-NBR	NBR	25.0 (0.984)	9.15 (0.360)	16.5 (0.649)		High buoyancy and excellent resistance to petroleum derived liquids
MS18-NBR	NBR	28.5 (1.122)	9.0 (0.354)	16.5 (0.649)		
MS01-PA	PA	23.5 (0.925)	8.5 (0.334)	19.0 (0.748)	LS01, LS02-S LS05	High strength to weight ratio, shock and abrasion resistant
MS02-PA	PA	25.0 (0.984)	9.15 (0.360)	16.55 (0.651)		
MS07-PA	PA	36.0 (1.417)	16.15 (0.635)	19.0 (0.748)		
MS01-PP	PP	23.5 (0.925)	8.4 (0.330)	19.0 (0.748)	LS01, LS02 LS02-S LS04, LS05	Highly resistant to chemical solvents, bases and acids  *MS02/R-PP magnet direction radial *MS06-PP also for food and beverage industry
MS02-PP	PP	25.2 (0.992)	9.15 (0.360)	16.55 (0.651)		
MS02/R-PP	PP	25.0 (0.984)	9.15 (0.360)	16.55 (0.651)		
MS03-PP	PP	27.0 (1.062)	11 (0.433)	11.7 (0.460)		
MS04-PP	PP	18.5 (0.728)	10.2 (0.401)	20.0 (0.787)		
MS08-PP	PP	20.0 (0.787)	9.15 (0.360)	16.0 (0.630)		
MS06-PP	PP	30.0 (1.181)	N/A	8.0 (0.314)	All Reed Sensors	
B12469	PP	32.6 (1.283)	N/A	22.9 (0.901)	R12468	Float located in bottle assembly, specific gravity per application
B12482	PP	42.0 (1.653)	11.4 (0.448)	25.0 (0.984)	R12481	*B12450 operates at fluid specific gravity 0.79 min
B12450	PP	L - 17.5 (0.688)	W - 13.4 (0.527)	24.9 (0.980)	R11744/R12180	
MS09-S	V2A	24.0 (0.944)	9.5 (0.374)	24.0 (0.944)	LS02-S LS05	Resistant to high temperatures and ideal for food and beverage industry
MS10-S	V2A	38.3 (1.507)	9.5 (0.374)	26.3 (1.035)		

PA (Polyamide) | PP (Polypropylene) | NBR (Nitrile Butadiene Rubber) | V2A (Stainless Steel)

# Magnetic Floats

## Glossary Material

PP	Polypropylene	<p><b>Water absorption</b> - Only 0.1% water absorption gives PP Floats excellent buoyancy</p> <p><b>Resistance</b> - Resistant to many chemical solvents, bases and acids</p> <p><b>Many applications</b> - Excellent choice for water-level sensors, automotive applications (e.g. brake fluid reservoirs) and manufacturing and plant equipment applications</p>
PA	Polyamide	<p><b>Resistance for many chemicals</b> - Ideal solution in fuel tanks, oil containers and many more</p> <p><b>Very high strength-to-weight ratio</b> - Shock and abrasion resistant as well as capable of enduring a 5 bar pressure (73 PSI or 0.5 Mpa)</p>
NBR	Nitrile Butadiene Rubber	<p><b>Acceptable for high &amp; low temperature applications</b> - Under certain conditions temperature resistance up to 120°C, stable as low as -40°C</p> <p><b>Resistance to Oil &amp; Fuels</b> - Minimal absorption of gasoline, benzene, alcohol and toluene (consult engineering for details)</p> <p><b>Mechanical Strength</b> - Floats are ebonite (very strong hard rubber) suitable for insertion of metals or magnets within the NBR</p> <p><b>Pressure Resistance</b> - Stable buoyancy is achieved with specific gravities up to 0.3kg/cm<sup>3</sup>, and negligible water absorption with pressures up to 3 Mpa (30 bar)</p> <p><b>Almost no dimensional change</b> - Minimal dimensional effects particularly when measuring Cp's and Cpk's</p>
S	Stainless Steel (V2A)	<p><b>High Temperatures</b> - Resistant for high temperatures (&gt;160°C), making them an ideal float switch magnet for fluid level sensing in the Food and Beverage Industry</p> <p><b>Pressure Resistance</b> - Stainless Steel Floats have a hollow buoyant structure combined with their strengths makes them an excellent choice for use in high pressure tanks</p> <p><b>Magnet fully contained within the float</b> - Actuator magnet is contained within the float therefore fully protected from the liquid material</p>

## Suitability of Materials

Conditions	NBR	Plastic Foam	Stainless Steel
Cut and Break	+	o	+
Temperature Resistance	o	o	+
Resistance to Fuels, Oil	+	+	o
Shock Resistance	+	o	o
Metal Inserts	+	o	+
Magnet Inserts	+	+	+
Water Pressure Resistance	o	+	o
Anti-Corrosion	+	+	o
Price Range	+	+	o
Food Applications	+	o	+
Drinking Water	o	o	+

+ = Ideal   o = Suitable   - = Not Suitable