

# 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: **MS-00-XXX**

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

Series	Material	Outside Dia.	Inside Dia.	Height	Use with Sensor
MS01-NBR	NBR	24.5	8.0	19.0	LS01, LS02, LS02-S, LS04, LS05
MS02-NBR	NBR	25.0	9.15	16.5	
MS01-PA	PA	23.5	8.5	19.0	
MS02-PA	PA	25.0	9.15	16.55	
MS07-PA	PA	36.0	16.15	19.0	All Reed Switches
MS01-PP	PP	23.5	8.4	19.0	LS01, LS02, LS02-S, LS04, LS05
MS02-PP	PP	25.2	9.15	16.55	
MS03-PP	PP	27.0	11.0	11.7	
MS04-PP	PP	18.5	10.2	20.0	
MS08-PP	PP	20.0	9.15	16.0	
MS06-PP	PP	30.0	8.0	8.0	All Reed Sensors
MS09-S	V2A	24.0	9.5	24.0	LS02-S, LS05
MS10-S	V2A	38.3	9.5	26.3	

\* All Dimensions in mm

Glossary Material		
PP	Polypropylene	<ul style="list-style-type: none"> <li>• <b>Water absorption</b> Only 0.1% water absorption gives PP Floats excellent buoyancy</li> <li>• <b>Resistance</b> Resistant to many chemical solvents, bases and acids</li> <li>• <b>Many applications</b> Excellent choice for water-level sensors, automotive applications (e.g. brake fluid reservoirs) and manufacturing and plant equipment applications</li> </ul>
PA	Polyamide	<ul style="list-style-type: none"> <li>• <b>Resistance for many chemicals</b> Ideal solution in fuel tanks, oil containers and many more</li> <li>• <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)</li> </ul>
NBR	Nitrile Butadiene Rubber	<ul style="list-style-type: none"> <li>• <b>Acceptable for high and low temperature applications</b> Under certain conditions temperature resistance up to 120°C, stable as low as -40°C</li> <li>• <b>Resistance to Oil and Fuels</b> Minimal absorption of gasoline, benzene, alcohol and toluene (consult engineering for details)</li> <li>• <b>Mechanical Strength</b> Floats are ebonite (very strong hard rubber) suitable for insertion of metals or magnets within the NBR</li> <li>• <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)</li> <li>• <b>Almost no dimensional change</b> Minimal dimensional effects particularly when measuring Cp's and Cpk's</li> </ul>
S	Stainless Steel	<ul style="list-style-type: none"> <li>• <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</li> <li>• <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</li> <li>• <b>Magnet fully contained within the float</b> Actuator magnet is contained within the float therefore fully protected from the liquid material</li> </ul>

Suitability of Materials			
Conditions	NBR	Plastic Foam	Stainless Steel
Cut and Break	+	0	+
Temperature Resistance	0	0	+
Resistance to Fuels, Oil	+	+	0
Shock Resistance	+	0	0
Metal Inserts	+	0	+
Magnet Inserts	+	+	+
Water Pressure Resistance	0	+	0
Anti-Corrosion	+	+	0
Price Range	+	+	0
Food Applications	-	+	+
Drinking Water	-	+	+

+ = Ideal   0 = Suitable   - = Not Suitable