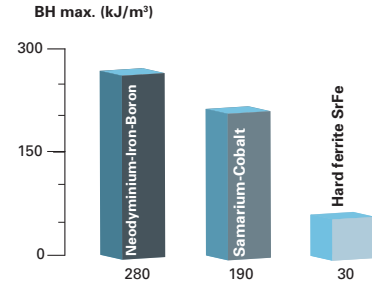


Sensor family	Nominal sensing distance $S_n$ typical		
	Permanent magnet MMRS AA02X02 Part No. 11052882	Permanent magnet MMRN AA06X05 Part No. 11052883	Permanent magnet MMRH BA31X15 Part No. 11053959
MRFM 08	5 mm	20 mm	60 mm
MFFM 08	5 mm	20 mm	60 mm
MFVM 08	5 mm	20 mm	60 mm

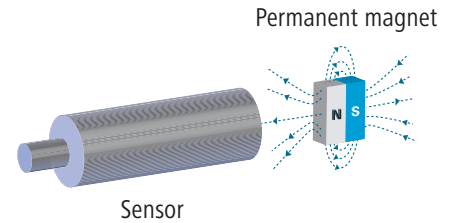
## Permanent magnet Alloy

The switching distance of a magnetic sensor relates to the magnet deployed. Not only size but also alloy of the permanent magnet play a decisive role. The higher the energy product of the magnetic alloy in  $\text{kJm}^3$ , the stronger the magnetic field and hence the more extended the switching distance.



## Permanent magnet Alignment

By principle, magnetoresistive proximity switches are polarity neutral, i.e. the sensor will detect both north and south pole of the permanent magnet. It is recommended to always attach the permanent magnet with one pole in alignment to the sensor to ensure reliable detection.



## Permanent magnet Mounting

The way a permanent magnet is mounted plays a crucial role in the sensing distance. When attached to a non-ferromagnetic carrier, the influence on the assured sensing distance will be nearly not noticeable. However, a permanent magnet mounted unshielded on a ferromagnetic carrier will enhance the switching distance by up to 25%. Attached flush or shielded to a ferromagnetic carrier, the switching distance will be reduced by up to 40% (always related to the assured sensing distance).

If the permanent magnet is to be screwed on, always use non-ferromagnetic screws (e.g. stainless steel).

