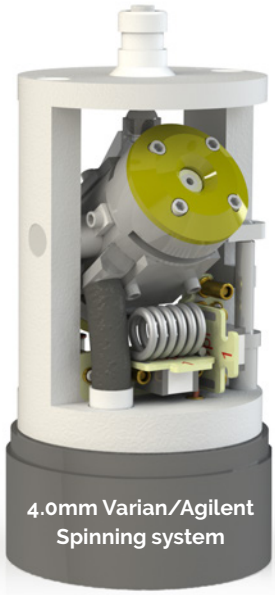
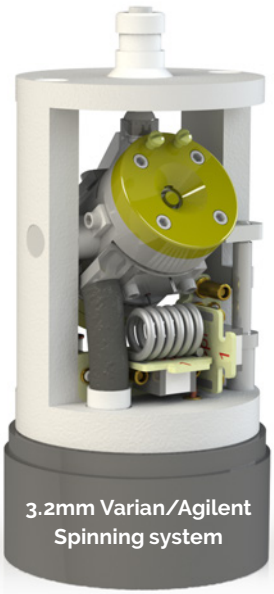
PHOENIXNMR

Elevating your science

PHOENIX NMR PROBE HEAD



4.0mm Varian/Agilent Spinning system



3.2mm Varian/Agilent Spinning system

A user interchangeable module approach is available for all PhoenixNMR Premium Probes. This design packages all of the necessary rotor and RF-specific components right into the probe head itself. This Phoenix NMR Probe Head design allows you to work with a single Phoenix NMR Probe Base and then change out only the probe head according to your research needs. This method allows you to expand your NMR capabilities at a much lower cost than with a traditional probe purchase that requires the complete replacement of both probe head and base. Below are several options that are available within Phoenix NMR's Probe Head product set.

Spinning Module Option: When you consider the spinning module, there are many options for a Phoenix NMR probe. Standard PhoenixNMR modules are available for rotor sizes 1.2 mm to 6.0 mm. PhoenixNMR also constructs special-order probe heads designed to accommodate rotors that you may already have. For example, we can outfit your new probe head with a Revolution-style spinning system. Or, if you have primarily Varian/Agilent-style existing probes we can provide a spinning module that will interface with those rotors as well. The same holds true if you have mainly Bruker-style probes.

And if you don't need spinning at all, we also offer static probe heads.

Low $^{1}H/^{13}C$ Background Probe Heads: We can provide material selection choices that will minimize the ^{1}H and ^{13}C (via Cross Polarization) background signals. Alternatively we can provide material choices to minimize the ^{19}F background, but this will dramatically increase the ^{1}H and ^{13}C background signals.

Low or High VT Range Options: Through the same material selections associated with background, the high temperature range of the probe head can be optimized. Effectively, low $^{1}H/^{13}C$ materials have inherently lower maximum temperature limits (100° C), whereas the low ^{19}F options have much higher maximum temperature ranges available (~200° C).

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AVAILABLE PROBE HEAD FEATURES:

Option	400 MHz	500 MHz	600 MHz	700 MHz	800 MHz	900 MHz
HXY, FXY	✔	✔	✔	✔	✔	✔
HFXY	✔	✔	✔	✔	✔	✔
LOW GAMMA	✔	✔	✔	✔	✔	✔
1.2 mm	✔	✔	✔	✔	✔	✔
1.6 mm	✔	✔	✔	✔	✔	✔
2.5 mm	✔	✔	✔	✔	✔	✔
3.2 mm	✔	✔	✔	✔	✔	ASK
4, 5, 6 mm	✔	✔	✔	ASK	ASK	ASK
OTHER ROTOR SIZE/STYLE	ASK	ASK	ASK	ASK	ASK	ASK
STATIC	✔	✔	✔	✔	✔	✔
STANDARD VT RANGE	Standard VT range is -125° C to +125° C on most modules; -30° C to +50° C for the 1.2 mm MAS module; and -150° C to +175° C for the static module.					

Typical probe head specifications:

- Variable Temperature Range depends on module material. Standard VT range of -125° C to +125° C depends on spinning module choice, presence of LN_2 cooling options, etc.
- Spinning module spinner size: 1.2 mm through to 6 mm.
- Tuning modes: HXY, FXY, HFXY, HX, FX, HFX (HF modes require H&F probe base option)
- HXY, FXY, HFXY mode X tuning range*: ^{31}P to ^{29}Si
- HXY, FXY, HFXY mode Y tuning range*: ^{23}Na to ^{15}N, plus Low gamma with optional add-on accessory
- HX, FX, HFX mode X tuning range*: ^{31}P to ^{14}N, plus Low gamma with optional add-on accessory
- *At High Magnetic Fields, ask for tuning range
- Magic Angle adjust range +/- 5 degrees, Resolution ~ +/- 0.02 degree.

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