

NMR Probe Specifications

Model	JEOL Resonance 10 mm 600 MHz broadband Z-gradient high resolution SuperCool NMR probe with open loop liquid nitrogen cooling, operating temperature <85K		
Applicable Instrument Description	ECZ 600 MHz NMR systems. Broadband high resolution NMR probe for direct detection fitted with an actively shielded Z-axis gradient for 10mm sample tubes on 600MHz standard bore magnets. The LF coil can be tuned to observe ^{13}C and ^{29}Si . The HF coil is tuned to ^1H . The probe is fitted with a ^2H lock. The probe is compatible with the JEOL Autotune accessory unit (NM-61160ATZ). The probe includes one (1) variable temperature compatible sample spinner.		
Specifications	Signal-to-Noise ^{13}C sensitivity $\geq 1300:1$ ASTM		
	Pulse Widths ^1H pulse width TBD @ 30W ^{13}C pulse width $\leq 31 \mu\text{s}$ @ 90W		
	Lineshape ^{13}C spinning lineshape $\leq 7/16 \text{ Hz}$ 1% chloroform (0.55%/0.11%)		
	Resolution ^{13}C resolution (spin) $\leq 0.4 \text{ Hz}$ 1% chloroform (FWHM)		
	Z-gradient The probe is fitted with an actively shielded single Z-axis gradient coil capable of 30G/cm with 10A current.		
	Variable Temperature Variable temperature range is 0°C to +150°C		
	Cooling Requirements: 8 Liters/Day liquid Nitrogen Consumption with Fill-On-The-Fly		