

Product: **Bruker 5mm BBI 400 MHz Z-Gradient high resolution probe (standard probe)**

Description: An inverse broadband high resolution probe fitted with an actively shielded single axis Z-gradient for 5 mm sample diameters and 400 MHz standard bore magnets. The inner NMR coil is tuned to observe ¹H. The outer NMR coil can be tuned for decoupling with any nucleus in the range from ³¹P to ¹⁰⁹Ag. The probe is fitted with a ²H lock channel. It is equipped with automatic tuning and matching accessory (ATM).

Specification:

Signal/Noise		
¹ H sensitivity	≥ 600:1	(0.1% EB; 200 Hz noise; LB=1 Hz; s=0.23 mm) ¹
Pulse Widths		
¹ H pulse width	≤ 8 μs	
³¹ P pulse width	≤ 25 μs	
¹³ C pulse width	≤ 15 μs	
¹⁵ N pulse width	≤ 30 μs	
Lineshape and Spinning Sidebands		
¹ H spinning lineshape	≤ 0.45/5/10 Hz	(50%/0.55%/0.11%, 1% CHCl ₃)
¹ H non-spinning lineshape	≤ 0.6/6/12 Hz	(50%/0.55%/0.11%, 1% CHCl ₃)
¹ H spinning sidebands	≤ 1.5 %	(1% CHCl ₃ sample)
Z-Gradient		
Gradient strength	≥ 0.5 T/m	(max current 10 A) ²
Variable Temperature Range		
Standard Range	-150°C to +150°C ^{2, 4}	

Model: **Z820201**, PA BBI 400S1 H-BB-D-05 Z

Specifications with a new Avance™ III spectrometer fitted with a BOSS1-SB shim system (or higher) and 300 Watt X-transmitters.

Technical data and specifications subject to change without notice.

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1) s = wall thickness of sample tube

2) Specifications verified at production, not at installation

3) With sample 0.1 mg GdCl₃ / ml D₂O + 1% H₂O + 0.1% CH₃OH; 5 ms gradient square pulses with strength +/- 37.5 G/cm

4) The shim system temperature must not be allowed to exceed +80°C. At low temperatures, precautions must be taken to prevent the magnet dewar O-rings from freezing.