



# Agilent 700 MHz NMR Magnet

Data Sheet



## Introduction

The Agilent 700 MHz NMR magnet, with its Premium Shielded design, is the result of continuous refinement of the SUPERSCREENED technology and delivers valuable benefits for high resolution NMR Systems.

## Key Benefits

- Significant reduction in fringe field over standard magnets minimizes space requirement and impact on surrounding areas
- Minimized ceiling height requirements allow easier siting



**Agilent Technologies**

## Agilent 700 MHz NMR Magnet

The Agilent 700 MHz NMR system consists of a highly homogeneous superconducting magnet (700 MHz  $^1\text{H}$ , 16.4 Tesla), housed within an ultra low-loss helium cryostat with a nominal room-temperature bore of 54 mm.

The magnet features excellent fringe field characteristics, improved magnet shielding from external perturbations, and minimized ceiling height. These facilitate ease of system siting and improve operational safety.

### System Includes

- Main magnet housed within a low-loss cryostat
- Set of anti-vibration legs
- Liquid helium and nitrogen cryogen level probes and readout unit
- Liquid helium transfer siphon and extension tube
- Braided liquid nitrogen transfer line
- Room temperature shim set
- Helium and nitrogen gas flow meter

## Technical Specifications

|  |   |
|--|---|
| NMR frequency                              | 700 MHz                                     |
| Drift                                      | 10 Hz/hr                                    |
| Superconducting shim coils                 | $Z^1, Z^2, Z^3, X, Y, ZX, ZY, XY, X^2, Y^2$ |
| Radial 5 G stray field from magnet center  | 150 cm/59.1 in                              |
| Axial 5 G stray field from magnet center   | 230 cm/90.6 in                              |
| Magnet radius (including flanges)          | 51 cm/20.1 in                               |
| Axial 5 G height above floor               | 355 cm/139.8 in                             |
| Axial 5 G depth below floor                | 105 cm/41.3 in                              |
| System weight, operational                 | 2,000 kg/4,400 lb                           |
| Vibration isolation using pneumatic legs   | Included as standard                        |
| Minimum ceiling height                     | 355 cm/139.8 in                             |
| Minimum ceiling height (optional transfer) | 330 cm/130.0 in                             |
| Liquid helium refill volume                | 135 L                                       |
| Liquid helium hold time                    | 150 days                                    |
| Liquid nitrogen refill volume              | 160 L                                       |
| Liquid nitrogen hold time                  | 21 days                                     |

### Ordering Information, Separate Sale

| Description                                    | Part number |
|--|-------------|
| Agilent NMR Magnet System, 700 MHz, 54 mm bore | 0191756900  |

[www.agilent.com](http://www.agilent.com)

Product specifications and descriptions in this document are subject to change without notice.

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