MagStation Lite™

Maximum capability, minimum size and investment

Magneflow®

The MagStation Lite Nuclear Magnetic Resonance (NMR) process analyzer completes Progression's Magneflow product line. This system provides superior industrial NMR performance in a compact and affordable package. Progression can configure the system with or without sample temperature control to best meet customer needs. Like the MagStation II™, the MagStation Lite is scalable to on-line manufacturing applications utilizing Progression's MagModule II™ technology.

The MagStation Lite accurately measures hydrogen, phosphorus, and fluorine with no manual sample preparation required. Patented data analysis methods provide the highest performance capable from an NMR spectrometer.

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Benefits

- Fast, non-destructive analysis
- Scalable to on-line MagModule II process NMR system
- No consumables
- On-site calibration, operator training, commissioning, and start up assistance
- Simple installation—minimal utility connections needed for variable temperature (VT) probe
- Easy to use—no prior NMR knowledge required

Advantages

- Minimal sample preparation
- Results in seconds
- Reliable, accurate performance
- LIMS compatible
- Fully integrated chemometric analysis software
- Modem communications provide full remote operation for fast customer support response

Applications

- Polymers
- Moisture and fats in baked goods
- HF acid reactor production
- Viscosity of fuel oils
- Oil in seeds
- Hydrogen in fuel
- Finish on fiber
- Biofuel feedstock analysis

Specification

Magnet System	The permanent magnet system is housed in a fully insulated, temperature-controlled enclosure.
NMR Frequency	20 MHz nominal: 2 – 60 MHz available
Standard Sample Diameter	0.710" (18 mm) (larger diameters available)
Typical Sample Volume	20 ml
Measurement Temperature Range	Ambient to 100°C standard (wider ranges available)
System Dimensions	**Magnet:** 18"W x 18"L x 18"H (46 x 46 x 46 cm) **Spectrometer:** 18"W x 22"L x 2"H (46 x 56 x 5 cm)
Curve Fitting	Automatic and manual curve fitting of the free induction decay (FID) is included. A number of curve-fitting models including exponential, Gaussian, modified Gaussian and Weibull are provided.
Pulse Width	0.1 to 40 µsec. in 0.1 µsec. steps
Receiver Gain	Adjustable over 55 dB range in 1 dB steps
Electronics Unit	Digital frequency synthesizer for RF pulse generation Digital receiver with 60 Msps/12 bit sampling Effective resolution at 1 Msps: 15 bit, at 200 ksps: 16 bit Event resolution: 33 ns
Sample Heat Time	Adjustable in one second intervals (optional)
Pulse Sequences	Standard single- and multi-pulse sequences Customized phase cycling and pulse schemes available

Utility Requirements

Electrical	85 – 132/180 – 264 VAC autoranging 50/60 Hz 10/5 A
Modem	Direct dial, outside phone line with sufficient quality is needed for reliable modem communication for support, training and remote diagnostics.

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Analyze with integrity.™

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