



Multiplelabs
Turnkey Laboratories Solutions

NMR-9040V

Seed Oil Content NMR Analyzer



►► Features

- Measurement of speed oil and moisture content

►► Configuration

- Magnetic field strength : $0.28 \pm 0.05T$
- Probi size : $\varnothing 40\text{mm}$
- Effective detection area : $\varnothing 40\text{mm} \times H30\text{mm}$
- Weight : 85 kg
- Footprint : 1685mm x 520mm x 386mm

►► Application Indexes

- Minimum detection limit : 100 mg water
- Sample height <30 mm
- Test range of seeds oil content : 0.03% ~ 100%
Accuracy : RD < 2% (compared with Soxhlet extraction method)
- Repeatability : RSD <2%, Reliability : RSD<2%
RSD : Relative standard deviation
RD : Relative deviation

►► Application Example

Oil contents in sunflower seeds -- NMR vs. Soxhlet extractor				
No.	Sample 1	Sample 2	Sample 3	Sample 4
NMR(%)	45.87	46.53	45.57	45.96
Soxhlet extractor(%)	46.35	46.13	46.27	46.53
Std Dev(%)	1.04	0.87	1.51	1.23
Water contents in sunflower seeds -- NMR vs. Drying method				
No.	Sample 1	Sample 2	Sample 3	Sample 4
NMR(%)	6.41	6.37	6.6	6.42
Drying Method(%)	6.68	6.51	6.41	6.51
Std Dev(%)	4.04	2.15	2.96	1.38