NIRS[™] DS3

Rapid, simple and versatile analysis for sugar cane processing



The NIRS[™] DS3 sugar cane analyser helps sugar cane processors to monitor and control the production process all the way from incoming cane via several production steps (extraction, filtration, evaporation, centrifugation and more) - to final control of finished sugar and bagasse.

Fast and versatile

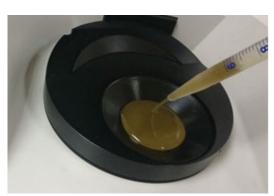
All types of samples can tested as is without sample preparation. Just choose the appropriate cup, place it in the instrument and press start. Results are displayed within a minute.

Save costs and improve production efficiency

The speed and ease of use of the NIRS DS3 saves time and cost of chemicals associated with traditional chemical analysis. What's more, the availability of accurate analysis data at the touch-of-a-button allows you to make faster and more timely adjustments to production for improved efficiency and yield.

Simple to implement and run

The NIRS DS3 is delivered with ready to use calibrations for all key parameters and FossManager™ networking software makes it possible monitor, configure and adjust the instrument remotely.



FOSS



Sample type

Shredded/prepared cane, cane juice, filter cake, syrup, massecuite, seed magma, crystal sugar, molasses and bagasse

Parameters

Pol, brix, purity, moisture, ash, RS, and more

Technology

NIR monochromator across the full spectral range from 400 to 2500 nm.

Factory standardisation ensures seamless transfer of calibrations.

Completely dust tight and water protected if exposed to water jets (IP65 certified)

Specifications

| Feature | Specification |
|------------------------|---|
| Dimensions (w x d x h) | 375 x 490 x 300 mm |
| Weight | 27 kg |
| Degree of protection | IP 65 |
| Measurement mode | Reflectance or transflectance (for liquids) |
| Wavelength range | 400 - 2500 nm |
| Detector | Silicon (400 - 1100 nm), Lead Sulphide, PbS (1100 - 2500 nm) |
| Optical bandwidth | 8.75 ± 0.10 nm |
| Data resolution | 0.5 nm |
| Number of data points | 4200 |
| Number of subsamples | Default: 7 for small cup; 8 for large cup |
| Self test | 12 minutes (variable) |
| Analysis time | <1 minute for 32 scans (8 subsamples, 4 scans per subsample) |
| Network connections | FossManager™ |

Installation requirements

| NIRS™ DS3 | |
|------------------------|--|
| Voltage supply | 100-240 V AC*, frequency 50-60 Hz, Class 1, protective earth |
| Ambient temperature | 5 - 40°C |
| Storage temperature | -20 to 70°C |
| Ambient humidity | < 93% RH |
| Mechanical environment | Stationary during use |
| EMC environment | Laboratory use, industry requirements |

*Mains supply voltage fluctuations not exceeding $\pm 10\%$ of the rated voltage.

Optional services

| Digital Services | FossAssure™ |
|------------------|-----------------------|
| Care Solutions | FossCare™, SmartCare™ |