

# INSTALAB® 700

## NIR Analyzer

### Offers reliability and accuracy in fixed filter testing that is simple to operate and affordable.

Quality design and construction ensures the most reliable NIR results available. The Instalab® 700 NIR Analyzer has a patented rotating sample cup which virtually eliminates problems associated with sample non-homogeneity. The cup rotation is computer controlled, with 120 readings taken at 3° intervals and averaged for each wavelength. The optional liquid sample cup has a non-rotation feature for measurement of liquids and oils.

Completely customizable, it allows filters to be changed to adjust the bandwidth for product constituents, including protein, cellulose, sugar, ash, starch, oil and fat, alcohol, cotton, and polyester. The Instalab 700 is an analytical upgrade from the Instalab 600 series, which allows for porting of the Instalab 600's extensive constituent library to the Instalab 700.

The Instalab 700 is dependable in design and built for trouble-free operation in any environment – from lab to production line.

#### Features and Benefits:

- Easy to use
- Intuitive color touch screen, eliminating operator training
- Tungsten halogen light source
- Memory storage for numerous calibrations
- Stable circuitry eliminates electrical drift and ensures nonvolatile storage of calibration constants, eliminating the need for an auxiliary power source
- Thermoelectrically cooled photo detector eliminates temperature drift
- Sample cup interchangeability
- Liquid sample cup for oils and liquids
- Communication capabilities – Supports both USB and RS232 standard printers. This includes multiple baud rates with custom header and footer.
- File Management
  - Storage of 3000 records
  - Export analysis data
  - Product calibration loading via USB memory stick
- USB, Ethernet Ports – Multiple ports for software upgrades, USB devices, printer and peripherals such as mouse and scanner
- Improved drawer design – Easily removed for cleaning
- Larger optional open sample cup
- Simple slope and Bias adjustment for every calibration
- Uses existing Instalab 600 calibrations

#### Product Applications:

- Grain processing
- Flour milling
- Ethanol production
- Feed processing
- Meat processing
- Dairy processing

#### Constituents:

- Protein
- Fat
- Moisture
- Fiber
- Ash and more



# INSTALAB<sup>®</sup> 700

## NIR Analyzer

### Unit Specifications

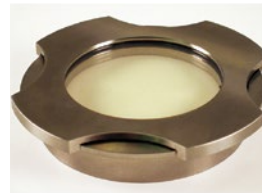
Weight	31 lbs/14.06 kg
Dimensions	(Height) 13.93 in / 35.4 cm (Width) 15.52 in / 39.42 cm (Depth) 14.25 in / 36.19 cm
Power Requirements	120 / 220 VAC (50 – 60 Hz)
Voltage Range	90 to 260 VAC (50 – 60 Hz)
Number of Optical Filters	4 to 10
Serial Computer Interface	RS-232-C and USB
Printer	Optional
Sample Integration Technique	Rotating Cup
Filter Bandpass	Approximately 10nm
Light Source	Tungsten Halogen
ETL Mark	UL61010-1
Humidity	5% RH to 95% RH to 27.7°C non-condensing decreasing linearly to 60% RH at 35°C decreasing linearly to 50% at 40°C
Altitude	Up to 2,000 meters
Operating Temperature	10 – 40°C (machine accuracy specification 10 – 35°C)
Storage Temperature	-20°C to +60°C
Calibration Storage	Flash memory
Typical Analysis Time	10 seconds
Detector	Thermoelectrically cooled lead sulfide (Pbs)
Reference Measurement	Through entire optical system, against ceramic disk
Gain Setting	Automatic for reference gain, calibration file controls gain or sample
Diagnostics	Diagnostic screens for troubleshooting indoor use only



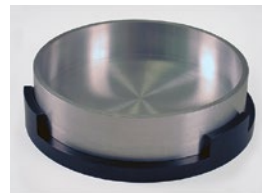
Standard Sample Cup



Small Open Sample Cup



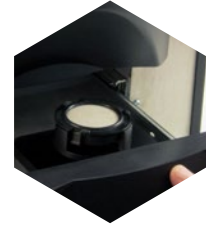
Liquid Sample Cup



Large Open Sample Cup



Color Touchscreen Display



Easy to Use



Interchangeable  
Sample Cup



USB / Ethernet Port  
Located on Back



USB Ports Located  
on the Front of Unit

### Declaration of Conformity

The Instalab 700 is in conformity with the provisions of the following directives and regulations.

- EN2006/95/EC Low Voltage Directive
- EN2004/108/EC EMC Directive
- EN61010-1 Safety requirements for electrical equipment for measurement, control and laboratory use operating at a maximum altitude of 6562 ft (2000 m)
- CAN/CSA – C22.2 NO. 61010-1 2nd Edition including Amendment 1
- ETL Mark UL 61010-1

### Backed by the power of DICKEY-john:

When you buy a DICKEY-john Instalab 700 you get all the dependability and value you expect from DICKEY-john products. Like all DICKEY-john products, the Instalab 700 is designed, manufactured, and supported in the USA.