RFM300-M Series Refractometers

WITH PELTIER TEMPERATURE CONTROL AND ROBUST SWITCH MEMBRANE

FOR HIGH PRECISION OPERATION IN DEMANDING FOOD, BEVERAGE

& OTHER INDUSTRIAL APPLICATIONS

NEW

The RFM300-M brings our popular RFM300+ refractometer up-to-date with a line of high precision Peltier temperature controlled benchtop refractometers.

The RFM300-M is identical in features to the recently launched RFM300-T Series in all aspects except for its tactile keypad. Incorporating wide beam optics and one of the flattest prism platforms on the market, RFM300-M Series refractometers are capable of measuring non-homogenous samples such as fruit juice with pulp, opaque chemical compounds and emulsions that are normally difficult to read with optical refractometers or those digital refractometers that do not address the need to measure "difficult samples."

The new instrument's ABS case is ergonomically designed so that any spills are dealt with by its sloping shape or by the PEEK spill barrier that surrounds the shallow, easy-clean stainless steel prism dish.
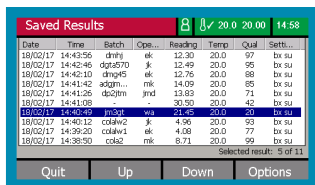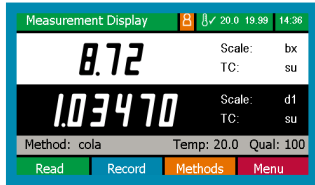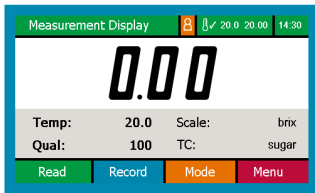
SMART temperature stability, RFID user clearance and application specific pre-programmed Methods simplify routine analyses within soft drinks, food, pharmaceutical and petrochemical industries. Supplied PC software enables control via Ethernet connection so that technical support and training may be performed remotely, with measurement results being viewed and exported via USB port in csv file format for PC or LIMS as well as in Secure PDF reports.

- 4" High definition display with robust push-button keypad for factory use
- Flat prism surface for easy-cleaning
- Wide beam scan for non-homogenous samples
- Three decimal place Brix precision* (6 d.p. RI)
- RFID user clearance
- Supports FDA regulation 21 CFR Part 11
- PHR-MEAN Method
- USB & Ethernet connectivity

100 YEARS CENTENARY
EST. 1915

BS Bellingham + Stanley

a **xylem** brand

RFM300-M Series of high precision refractometers with Peltier temperature control for harsh environments

Specifications		RFM330-M	RFM340-M
Scales			
	Refractive Index	1.32 – 1.58	1.32 – 1.58
	Sugar (°Brix)	0 – 100	0 – 100
	User Defined	100	100
Resolution			
	Refractive Index	0.0001	0.000001 (selectable up to 6 d.p.)
	Sugar (°Brix)	0.1	0.01 / 0.001 (selectable up to 3 d.p.)
Accuracy			
	Refractive Index	± 0.0001	± 0.00002 (1.32 - 1.38 RI)
			± 0.00004 (1.38 - 1.58 RI)
	Sugar (°Brix)	± 0.1	**± 0.010** **(0 - 30 °Brix)**
			± 0.030 (30-100 °Brix)
Precision (Reproducibility)*			
	Refractive Index	± 0.00005	± 0.000005 (6 d.p.)
	Sugar (°Brix)	± 0.05	**± 0.005** **(3 d.p.)**
User Scale Library		20+ pre-programmed scales including HFCS (3), sugar (4), sucrose SG (3), NaCl, Butyro, Wine Must (5), Urine SG (3), PHR-MEAN and more; plus customer programmable user scales via PC.	
Reading Time		Minimum 4 seconds (dependent on precision required)	
Measuring Temperature Range		0°C or 10°C below ambient whichever is greater to 70°C	
Temperature Sensor Accuracy		± 0.03 °C	
Sample Temperature Stability		± 0.05 °C	
Temperature Compensation			
	Sucrose (°Brix)	5 – 80 °C	
	AG Fluid	5 – 40 °C	
	User Defined	Simple coefficient (units/°C) or polynomial function	
Temperature Stability Checks		None/delay time/repeatability/Smart (independently selectable by Method)	
Sample Illumination		Light Emitting Diode 589nm (100,000+ hours)	
Prism / Dish		Artificial Sapphire / Stainless Steel 316 / PEEK (spill barrier)	
Prism Seal		Silicone/Resin	
Interfaces		3 x USB (A), 1 x USB (B), 1 x Ethernet, 1 x Serial (RS232)	
Power		Instrument: 24 V DC, ±5%, <2A External PSU: 100-240V, 50-60Hz (supplied)	
Humidity Range		<90% RH (non condensing)	

Order Codes

Code	Description
19-35	**RFM330-M Peltier temperature controlled refractometer** with latest integral 4" full colour high resolution display, robust switch membrane and USB/LAN connectivity. Supplied with pack of two RFID tags, instruction manual and certificate of conformity.
19-45	**RFM340-M high precision Peltier temperature controlled refractometer** with latest integral 4" full colour high resolution display, robust switch membrane and USB/LAN connectivity. Supplied with pack of two RFID tags, instruction manual and certificate of conformity
22-498	Spare filters for RFM-T/M models (pack of 12)
55-14	Dot-matrix impact printer, 24 column: Serial RS232, 230V (UK/Euro plug)
55-16	Dot-matrix impact printer, 24 column: Serial RS232, 110V (USA plug)
54-02	Serial interface cable for printer

Latest Software Features

- Dual display function Brix/SG
- Save over 8000 readings
- Reading, user & config audit trails
- Print to secure PDF
- Simple USB "Back-up & Clone"
- User maintenance prompts
- Remote diagnostics & control

*for definitions, please visit our website

Bellingham + Stanley

a xylem brand

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