



# RFM300-T Series Refractometers

TOUCHSCREEN HIGH PRECISION MODELS WITH PELTIER TEMPERATURE CONTROL  
FOR DEMANDING FOOD, BEVERAGE, CHEMICAL & INDUSTRIAL APPLICATIONS



Bellingham + Stanley has been manufacturing refractometers for over a Century and the latest refractometers build on that legacy.

The RFM300-T Series is the latest in a line of RFM models designed specifically for use in harsh environments.

Incorporating wide beam optics and one of the flattest prism platforms on the market, RFM300-T 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.

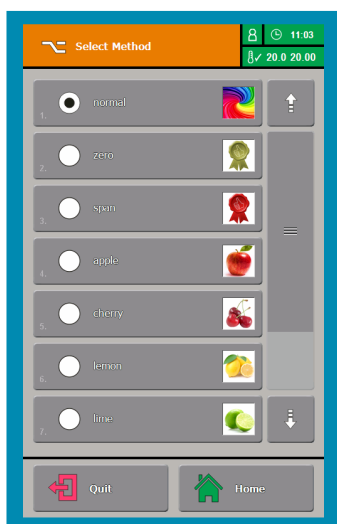
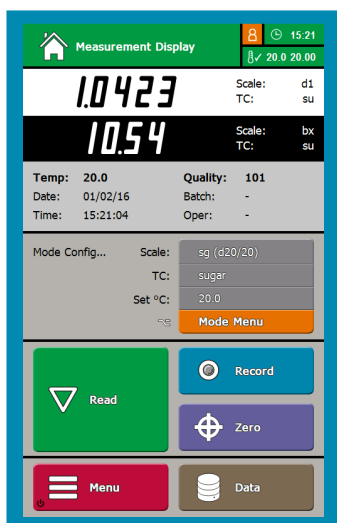
Inherent to the modern design is the new high definition, capacitive touchscreen display that not only facilitates use in factory environments, even when operating whilst wearing gloves, but also is the centrepiece of the new software that helps the operator quickly manoeuvre through the user and configuration menus. SMART temperature stability, RFID user clearance and application specific pre-programmed Methods simplify routine analyses within pharmaceutical and petrochemical industries. Supplied PC software enables control via Ethernet connection so that technical support and training may be performed remotely.

- 7" High definition touchscreen display
- Flat prism surface for easy-cleaning
- Wide beam scan for non-homogenous samples
- Three decimal place Brix precision\* (6 d.p. RI)
- USP/EP/BP/JP compliant
- Supports FDA regulation 21 CFR Part 11
- PHR-MEAN Method
- USB & Ethernet connectivity



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# RFM300-T Series of high precision refractometers with 7" touchscreen and Peltier temperature control



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

## Order Codes

Code	Description
19-30	<b>RFM330-T Peltier temperature controlled refractometer</b> with latest integral 7" full colour touchscreen, high definition display and USB/LAN connectivity. Supplied with pack of two RFID tags, instruction manual and certificate of conformity.
19-40	<b>RFM340-T high precision Peltier temperature controlled refractometer</b> with latest integral 7" full colour touchscreen, high definition display and USB/LAN connectivity. Supplied with pack of two RFID tags, instruction manual and certificate of conformity.
22-498	Spare filters for RFM-T 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



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