



# RFM900-T Series Refractometers

WIDE MEASURING RANGE WITH TOUCHSCREEN AND PELTIER TEMPERATURE CONTROL  
FOR FLAVOURS, PHARMACEUTICAL, CHEMICAL, PETROCHEMICAL & RESEARCH USE



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

Featuring a wide measuring range up to 1.70 RI and capable of measuring to six decimal places, the RFM900-T Series refractometers are ideally suited for use in the chemical, petrochemical, pharmaceutical, flavours and fragrance industries as well as for academic research.

The instrument's new 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. The prism dish is shaped to hold sufficient sample for measurement whilst retaining a large enough surface area for rapid temperature stabilisation. A Kalrez® gasket has been chosen as the prism seal due to its impermeable nature to most chemicals.

Inherent to the new design is the new high definition, capacitive touchscreen display that not only facilitates operation 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. On-screen graphical prompts also support simple operation such as Method loading, calibration and routine maintenance.

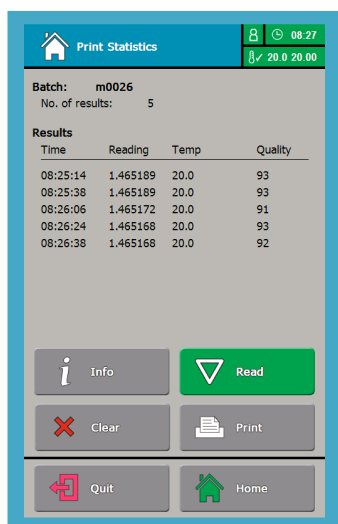
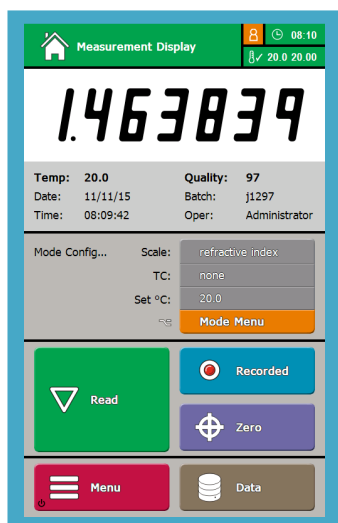
SMART temperature stability, RFID user clearance and application specific pre-programmed Methods simplify routine analyses within pharmaceutical and petrochemical industries. Supplied PC software facilitates control via Ethernet connection so that technical support and training may be performed remotely.

- 7" High definition touchscreen display
- Wide Measuring range: 1.30 - 1.70 RI
- Six decimal place precision
- Peltier temperature control stability:  $\pm 0.02^{\circ}\text{C}$
- US/EP/BP/JP compliant
- Supports FDA regulation 21 CFR Part 11
- PHR-MEAN & ASTM D 2140 Methods
- USB & Ethernet connectivity



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# RFM900-T Series of high precision refractometers with 7" touchscreen and Peltier temperature control



Specifications	RFM960-T	RFM970-T
<b>Scales</b>		
Refractive Index	1.30 – 1.70	1.30 – 1.70
Sugar (°Brix)	0 – 100	0 – 100
User Defined	100	100
<b>Resolution</b>		
Refractive Index	0.0001	0.000001 (selectable up to 6 d.p.)
Sugar (°Brix)	0.1	0.01 / 0.001
<b>Accuracy</b>		
Refractive Index	± 0.0001	± 0.00002
Sugar (°Brix)	± 0.1	± 0.02
<b>Precision</b>		
Refractive Index	± 0.00005	± 0.000005 (6 d.p.)
Sugar (°Brix)	± 0.05	± 0.005
<b>User Scale Library</b>	20+ pre-programmed scales including HFCS (3), sugar (4), sucrose SG (3), ASTM D 2140, PHR-MEAN, Urea and more; plus customer programmable user scales via PC.	
<b>Reading Time</b>	Minimum 4 seconds (dependant on precision required)	
<b>Measuring Temperature Range</b>	0°C or 10°C below ambient whichever is greater to 80°C	
<b>Temperature Sensor Accuracy</b>	± 0.03°C	
<b>Sample Temperature Stability</b>	± 0.02°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>	Kalrez®	
<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
19-60	<b>RFM960-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.
19-70	<b>RFM970-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.
22-498	Spare filters for RFM-T models (pack of 12)
22-467	Validation documentation (only) for RFM900-T IQ/OQ/PQ within pharmaceutical environments
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
55-86	USB mini keyboard

## Latest Software Features

- Save over 4000 readings
- Reading, user & config audit trails
- Print to secure PDF
- Simple USB "Back-up & Clone"
- User maintenance prompts
- Remote diagnostics & control



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