



# RFM700-M Series Refractometers

EASY TO USE INSTRUMENTS WITH AUTOMATIC TEMPERATURE COMPENSATION  
FOR USE IN HARSH FACTORY ENVIRONMENTS



- Classic red or modern colour display
- Auto-sense "hands free" measurement
- Simple audit trail (date, time & batch no.)
- Alpha-numeric keypad for easy data entry
- USB connectivity
- Flat sapphire prism surface for easy-cleaning
- Simple operation for factory environments

RFM700 series refractometers are robust, low cost, fully automatic instruments that are ideally suited to the food, sugar and beverage industries but can also be used in many other non-food applications where temperature control is not required.

Commonly, the RFM700-M series refractometers are supplied to operate in the °Brix scale with results temperature compensated to 20°C in accordance with ICUMSA. Additional user scales provide measurement in different formats such as Refractive Index (RI) various wine, urine specific gravity & automotive scales as well as allowing custom scales to be loaded in accordance with product data.

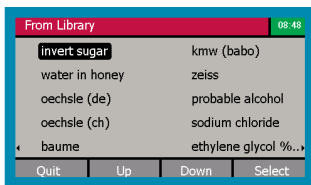
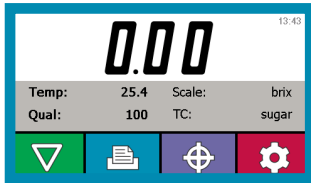
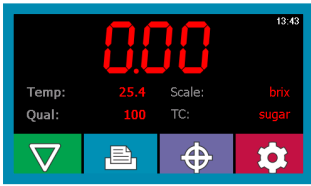
Inherent to the robust design is a sapphire prism mounted in an easy-clean stainless steel dish and an outer casing that is sealed and shaped to withstand sample spillage and moisture ingress. This, together with the external power supply and bright 4" high definition colour display, makes the RFM700-M ideal for use in busy laboratories or harsh factory environments. The instrument can also save and/or print results and be connected to a printer or laboratory PC, with results being output in standard print, CSV or secure PDF formats.

Other software features include special AG temperature compensation that facilitates a SPAN calibration when using AG calibration fluids, and a time delay before reading, ensuring reliable results every time.



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# RFM700-M Series of refractometers with automatic temperature compensation



Specifications	RFM712-M	RFM732-M	RFM742-M
<b>Scales</b>			
Refractive Index	1.32 - 1.42	1.32 - 1.54	1.32 - 1.54
Sugar (°Brix)	0 - 54	0 - 100	0 - 100
User Defined	100	100	100
<b>Resolution</b>			
Refractive Index	0.0001	0.0001	0.00001
Sugar (°Brix)	0.1	0.1	0.01
<b>Accuracy</b>			
Refractive Index	± 0.0001	± 0.0001	± 0.00004
Sugar (°Brix)	± 0.1	± 0.1	± 0.04
<b>Precision (Reproducibility)*</b>			
Refractive Index	± 0.00005	± 0.00005	± 0.00001
Sugar (°Brix)	± 0.05	± 0.05	± 0.01
<b>User Scale Library</b>	20+ pre-programmed scales including HFCS (3), Sugar (4), Honey, NaCl, Wine Must (5), Urine SG (3), Glycol (2), Urea, FSII and more; plus customer programmable user scales via PC.		
<b>Reading Time</b>	Minimum 4 seconds (dependent on precision required)		
<b>Temperature Control</b>	None - Temperature Compensation (ATC)		
<b>Measuring Temperature Range</b>	5 - 80 °C		
<b>Temperature Sensor Accuracy</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>	Programmable delay time		
<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>	1 x USB (A), 1 x USB (B) - Ethernet & Serial (RS232) via optional adaptor		
<b>Power</b>	Instrument: 24 V DC, ±5%, <2A External PSU: 100-240V, 50-60Hz (supplied)		
<b>Humidity Range</b>	<90% RH (non condensing)		

## Latest Software Features

- Easy to use Installation Wizard
- 7 Menu languages
- Save over 8000 readings
- Print to secure PDF
- Onboard user scale library
- User maintenance prompts

\*for definitions, please visit our website

## Order Codes

Code	Description
19-00	<b>RFM712-M refractometer</b> with latest integral 4" full colour display, robust switch membrane and USB connectivity. Supplied with instruction manual and certificate of conformity.
19-10	<b>RFM732-M refractometer</b> with latest integral 4" full colour display, robust switch membrane and USB connectivity. Supplied with instruction manual and certificate of conformity.
19-20	<b>RFM742-M refractometer</b> with latest integral 4" full colour display, robust switch membrane and USB connectivity. Supplied with instruction manual and certificate of conformity.



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