

**RFM700 Refractometers**

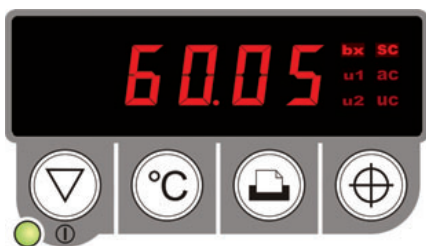
# **Refractometers for Food and Beverage Applications**


**Jams and Marmalade**  
**Concentrates**  
**Confectionery**  
**Beverages**  
**Fruit Juice**  
**Sugar**  
**Grape Must**  
**Tomato Paste**  
**Soups**  
**Bouillon**  
**Industrial Fluids**



**Bellingham + Stanley Ltd.**  
**Quality Scientific Instruments**

# RFM700 Automatic Digital Refractometers



**'Read'**  
 gives direct reading in °Brix;  
 also power standby function

**'Zero'**  
 allows zero point calibration with water

**'Temperature'**  
 displays temperature in °C

**'Print'**  
 print results

RFM700 series refractometers are robust, low cost, fully automatic instruments that are ideally suited to the food, sugar and beverage industries but can now be used in many other *non food* applications.

The instruments are configured to operate in the °Brix scale with results temperature compensated to 20°C in accordance with ICUMSA. Additionally, two user scales provide measurement in different formats such as RI, FSII, Bäume, Oechsle and Probable Alcohol (A.P), whilst custom scales may also be loaded in accordance with product data, including user temperature compensation, by using software available free of charge from the Internet.

The robust construction features 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 makes the RFM700 ideal for use in busy laboratories or harsh factory environments. The red LED display is clear and visible in dim or bright lighting, making the instrument suitable for use in Tare Houses and includes scale and temperature compensation indicators. The instrument can also be connected to a printer or laboratory PC, with results being output in standard or CSV formats.

Other new 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.

Measurement Specifications	RFM712	RFM732	RFM742	RFM745'
Scales				
° Brix	0-50	0-95	0-80	0-80
User Defined (2 scales - configurable)	YES	YES	YES	NO
Resolution (° Brix)	0.1	0.1	0.01	0.01
Accuracy (° Brix)	±0.1	±0.1	±0.04	±0.04
Other Scales	User defined – RI, Oechsle, Probable Alcohol (A.P), Bäume, Babo, Sodium Chloride, HFCS, Butyro, FSII <sup>2</sup> etc. or custom scales, all loaded by PC software.			Fixed 42% HFCS 55% HFCS 90% HFCS
Automatic Temperature Compensation	ICUMSA, AG, None or User Defined			ICUMSA, AG, None
Reading Time (seconds)	3.2	4.5	4.5	4.5
Working Temperature Range	5-40°C			
Temperature Sensor Accuracy	±0.05°C			
Temperature Stability Checks	Delay time (programmable)			
Interface	RS232			
Ambient Humidity Range	< 90% RH			
Order Code	29-12	29-32	29-42	29-45

Note 1: HFCS model typically for USA market    2: Conforms to ASTM D 5006

## Measurement Features:

- Brix Scale
- User Scales
- HFCS Model
- ICUMSA TC
- User TC
- Zero/Span Calibration
- Time Delay

## Instrument Features:

- Sapphire prism
- Easy clean stainless steel dish
- Large LED display
- Simple operation
- Conforms to ASTM D 5006

Physical Specifications	
Prism	Artificial Sapphire (12mm sample area diameter)
Prism Dish	316 Stainless Steel (85mm diameter)
Interface	RS232
Sample Illumination	Light Emitting Diode (life 100,000hr +) 589nm
Temperature Control	None – Temperature Compensation (ATC)

Power Supply
External 100-240V~, 50-60Hz, 50mA

Options	
Waterproof Power Supply	Interface Cables
Printer Package	Splash Cover
For details on optional accessories contact B+S or visit our website.	



Bellingham+Stanley Ltd operates a Quality Management System complying with BS EN ISO 9001:2000 (Certificate No. LRQ 0963791).

**CE** These products comply with the requirements of the Low Voltage Directive 73/23/EEC and the EMC Directive 89/336/EEC

*Bellingham+Stanley Ltd. pursues a policy of continuous product development and improvement and as such, information given on this Data Sheet may be updated or withdrawn without notice.*



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