



The **29i** is a compact and versatile multi-function weighing indicator designed for industrial and commercial applications.

Equipped with a high-resolution 24-bit Low-Noise Sigma-Delta (Σ - Δ) A/D Converter and a flexible internal function architecture, it delivers stable and accurate performance in demanding working environments.

The ABS housing design makes the 29i suitable for bench scales, platform scales, and system integration applications where both durability and lightweight construction are required.

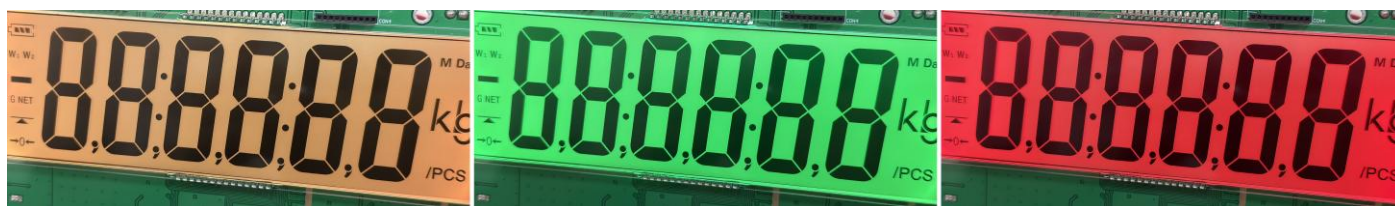


Core Technology

- 32-bit ARM Cortex M23 Microprocessor
- 24-bit Low-Noise Sigma-Delta (Σ - Δ) A/D Converter
- Internal Resolution up to 4.0 million Counts at 20mV.
- Minimum Input per Division 0.05 μ V
- Selectable Conversion Speed: 10, 20, 60, or 120 times per Second
- Adjustable Filter Strength and Anti-Vibration Level
- Support for Single Range, Dual Range, and Dual Interval

Operation Modes

- Weighing Mode
- Piece Counting Mode
- Animal Weighing Mode
- Peak Hold Mode
- Action-Tare-Memory Mode



Adjustable Tri-Color Check Result Backlight

Tare and Check Functions

- Manual Tare
- Automatic Tare
- Continuous Automatic Tare with Adjustable Activation Time
- Repetitive and Multiple Tare
- Preset Tare
- Dynamic Check Mode with Near Zero Function
- Configurable Buzzer for Check Result
- Optional 0-5V, 0-10V and 4-20mA Analogue Output

Control Logic and Output

- Production Settings PLUs can be recalled through Product/Customer Code Scanning
- Inflow and Outflow Control
- Constant Feeding
- Constant Dispensing
- Optional 4-Channel Control Relay Output

Versatility, Functionality, and Accuracy are all Built-In

29i Multi-Function Indicator

Memory and Data Management

- Manual and Automatic Accumulation
- Memory Recall and Clearance
- Stores up to 100 Production Settings PLUs for each Supported Weight Unit
- Alibi Transaction Memory Storing up to 131,072 Transaction Records
- Machine ID and Group Number Setting
- Operator Number Management
- Customer and Product Code Entry
- Management Report with Customizable Output Criteria
- Real-Time Clock with Backup Battery
- Keypad Lock Helps Prevent Unintended or Unauthorized Setting Changes

Sys Seq	Opr	Mode	Mac	MacOp	Date	Time	Ccode	C Description	Pcode	P Description	Gross	Tare	Net	Unit	@WT	@WT Unit	QTY	Low	High	Check Target	Result	Note	Checksum
100	8888	1	11	22	7/1/2026	15:41:54	FM	Fidelity Measurement	29i	Smart Indicator	1.501	0.250	1.251	kg	3.75403	g	333	748	752	pcs	Below	7799	A8
101	8888	1	11	22	7/1/2026	15:41:57	FM	Fidelity Measurement	29i	Smart Indicator	2.001	0.250	1.751	kg	3.75403	g	466	748	752	pcs	Below	7799	B7
102	8888	1	11	22	7/1/2026	15:42:01	FM	Fidelity Measurement	29i	Smart Indicator	2.501	0.250	2.251	kg	3.75403	g	600	748	752	pcs	Below	7799	A5
103	8888	0	11	22	7/1/2026	15:43:16	FM	Fidelity Measurement	29i	Smart Indicator	1.501	0.250	1.251	kg				0.749	0.751	kg	Above	7799	25
104	8888	0	11	22	7/1/2026	15:43:23	FM	Fidelity Measurement	29i	Smart Indicator	1.000	0.250	0.750	kg				0.749	0.751	kg	Accept	7799	84
105	8888	0	11	22	7/1/2026	15:43:25	FM	Fidelity Measurement	29i	Smart Indicator	1.001	0.250	0.751	kg				0.749	0.751	kg	Accept	7799	89
106	8888	1	11	22	7/1/2026	15:43:38	FM	Fidelity Measurement	29i	Smart Indicator	1.501	0.250	1.251	kg	3.75403	g	333	748	752	pcs	Below	7799	B5
107	8888	1	11	22	7/1/2026	15:43:41	FM	Fidelity Measurement	29i	Smart Indicator	3.001	0.250	2.751	kg	3.75403	g	733	748	752	pcs	Below	7799	B7
108	8888	1	11	22	7/1/2026	15:43:44	FM	Fidelity Measurement	29i	Smart Indicator	2.501	0.250	2.251	kg	3.75403	g	600	748	752	pcs	Below	7799	B3

Alibi Management Report Illustration

Communication Interfaces

- Standard: 2 x RS232
- Optional Bluetooth, Wi-Fi
- All Interfaces are independently Configurable
- Multiple Standard and Customized Portrait and Landscape Output Formats with Standard Deviation Support
- Support for LP-50, TSC, and Sbarco Label Printers
- Command Protocol and Customized PC Output



Display and Keyboard

- 6 × 45mm Wide-Angle LCD Numeric Digits
- Tri-Color Backlight with Adjustable Brightness
- Gross, Net, Stable, Zero, Memory, and Battery Level Indicators
- Full Numeric Keypad
- Quick Access to Production Settings PLU

Load Cell Connection

- Excitation Voltage: 5V DC
- Support for 4-Wire and 6-Wire Load Cells
- Maximum Load Cell Sensitivity: 4mV/V
- Maximum Connection:
 - 4 × 350 Ohm load cells
 - 8 × 700 Ohm load cells

Software Solutions

FM Scale Monitor (Windows)

PLU and Report Management for Windows

- Monitor Up to Six Weighing Indicators Simultaneously
- Display Live Weight, Counting, Check-Weighing Results, Stability, and Connection Status
- Connect via Wi-Fi, LAN, Bluetooth 2.0 SPP, or Serial Communication
- Centrally Read, Edit, and Manage PLU Records
- Import PLU Data from Microsoft Excel
- Retrieve Alibi Transaction Reports
- Export Report Data in CSV or Excel Format
- Support Multiple Interface Languages

FM Scale Mobile (Android)

Mobile Weighing and Data Management for Android

- Monitor Live Weight and Counting or Check-Weighing Results
- Connect via Wi-Fi, LAN, USB OTG, or Bluetooth
- Select PLU Records and Display the Associated Functions and Check Limit Settings
- Retrieve Alibi Transaction Reports
- Export Report Data in CSV or Excel Format

Versatility, Functionality, and Accuracy are all Built-In

29i Multi-Function Indicator

Specifications

Capacity and Readability	Free Setting
Weighing Range	Single Range, Dual Range, Dual Interval
Weight Units	kg, g, lb
Display	6 x 45mm Wide Angle LCD Numeric Digits - Tri-Color Backlight with Adjustable Brightness
Load Cell Connection	- Excitation Voltage = 5V DC - Support both 4-wire & 6-wire Load Cells - Maximum Connections: 4 x 350Ω or 8 x 700Ω
Microprocessor	32-bit ARM Cortex M23 Microprocessor
A/D Converter & Internal Resolution	24-bit Low-Noise Sigma-Delta ($\Sigma\Delta$) 4.0 million Counts at 20mV - Minimum Input per Division = 0.05μV
A/D Conversion Speed	Selectable: 10, 20, 60, or 120 conversions per second
Max. Tare Range	-Max or -Max ₁ (Subtractive Tare)
Calibration Methods	- Two-point Linearity Calibration - Single-point Accuracy Calibration - Numeric Calibration via Keyboard
Power Source	- Rechargeable 6V, 4AH Battery - External 12V DC, 1A Power Adaptor
Accessories	- Dust Cover - Pillar Mount Holder (Ø35 ~ 38mm)
Packing	- Individually Packed. 36 x 33 x 16cm. Net/Gross = 2.50/2.90kg - Four Units in a Shipping Carton. 68 x 38 x 36cm. Net/Gross = 10.00/13.50kg
Operation Environment	- Temperature: -10°C to 40°C - Humidity: ≤85%, Non-condensing

In the interest of improvement, specifications may change without notice

Options

- Stainless Steel Wall/Desk Mount Holder
- Wi-Fi, Bluetooth 2.0 SPP/4.0 Module
- 4-Channel Control Relay Board (Factory Installation)
- 0-5V, 0-10V and 4-20mA Analogue Output (Factory Installation)
- Bluetooth/Serial Barcode Scanner



Fidelity Measurement Company Limited

www.fm.com.tw

info@fm.com.tw

REV.: 29i/26/09/00