



RINSTRUM R310

BASIC DIGITAL INDICATOR

HIGHLIGHTS

- NMI Trade-Approved 4,000 Divisions
- Battery Operation
- 20mm LCD Display
- Compact ABS Housing
- Bright LED Backlighting
- Zero, Tare, Gross/Net Keys



FEATURES

The Rinstrum R310 digital weight indicator offers high levels of performance and functionality by combining all the very latest advances in weighing technology into one compact package.

A powerful 24 bit Sigma-Delta A/D converter ensures fast and accurate weight readings are attained. The four layer, surface mount PCB has a low power consumption and offers extreme durability under harsh operating conditions.

All Rinstrum models will have a long market life due to the use of FLASH ROMs which allows in-field updating to the later software revisions or to accept custom functions.

Another innovation is the Rinstrum "rin-LINK" - a dedicated optical data coupling that connects to the inbuilt IR port on the indicator display for PC access to all setup and calibration functions.

The cosmetically appealing ABS housing design incorporates provision for pole mounting, anti-skid feet for desk mounting and an integral battery compartment for portable & stand-alone uses.

A 20mm, 6-digit LCD display has super-bright LED back-lighting for easy reading under all conditions, including bright sunlight. The backlighting LEDs use a new matrix design for very even light distribution.

The silicon keypad is extremely operator friendly; the operation is very soft and responsive with both tactile and audible feedback.

The R310 can power up to 4 x 350Ω loadcells and is software selectable for either 4 wire or 6 wire operation (sense wire linking is not required).

The comprehensive setup and calibration functions are displayed in plain English messages for easy configuration. The software auto-detects the type of power input (plug-pack or internal batteries) and alters the power saving functions accordingly.

There are no outputs of any kind in the R310. No Serial, no setpoints, no clock/cal/RAM. This indicator provides weight only display.

The "rin-VIEW" software allows PC access to all indicator functions and the ability for the setup and calibration data to be saved, restored or copied into other R310's at any time.

STANDARD FEATURES

- OIML and NMI Trade-Approved for 4,000 Divisions
- 30,000 Divisions @ 20 Updates per Second
- 5 Points Linearity Correction
- rin-LINK Connectivity
- 20mm LCD Display with LED Backlighting
- 12-24VDC Power Input
- 4 and 6 Wire Loadcell Wiring
- Spring Loaded, Screwless Cable Terminations

SPECIFICATIONS

PERFORMANCE	
Display	LCD with 6 x 20mm High Digits
Back-Light	LED Back-Lighting
Display Resolution	Up to 30,000 Divisions, Minimum of 0.25 μ V/Division (Trade-Approved 4,000 Divisions at 0.8 μ V/Division)
Count-by	1, 2, 5, 10, 20, 50, 100 (Entered in Display Weight)
Zero Cancellation	\pm 2.0mV/V
Span Adjustment	0.1mV to 3.0mV Full Scale
Stability/Drift	Zero: <0.1 μ V/ $^{\circ}$ C, Span <10ppm/ $^{\circ}$ C, Linearity <20ppm, Noise <0.05 μ V p-p
Operating Environment	Temperature -10 $^{\circ}$ C to +50 $^{\circ}$ C, Humidity < 90% Non-Condensing
DIGITAL	
Setup and Calibration	Full Digital with Visual Prompting in Plain Messages
Memory Retention	Full Non-Volatile Operation
Digital Filter	Sliding Window Average from 0.1 to 4.0 Seconds
Zero Button	Adjustable from \pm 2% to \pm 20% of Full Capacity
A/D CONVERTOR	
Type	24 Bit Sigma Delta
Resolution	8,388,608 Internal Counts
A/D Sync Filter	20Hz, FIR Filter >80dB
LOADCELLS	
Excitation	5V for Up to 4 x 350 Ω Loadcells (6-Wire and Shield)
Loadcell Connection	6-Wire and Shield (Intrinsic Safety-Barrier Compatible)
SERIAL COMMS	
Serial Output	None Fitted or Available
OPTI-LINK	By-Directional Isolated Infra-Red to RS-232 PC Link
DIMENSIONS	
Body Size	Desk Stand: 164mm(L) x 75mm(H) x 83mm(D)
	Panel Mount: 164mm(L) x 75mm(H) x 28mm(D)
POWER SUPPLY	
Standard	12 to 24VDC (2.5 VA Maximum) ON/OFF Key with Memory Feature
Variants	AC Plug Pack: 110/240VAC 50/60Hz in 12VDC 0.5A Out 4 x AA Batteries (Alkaline or Rechargeable NiMH, NiCad, etc.)
FEATURES	
Additional Features	Five Point Linearity Correction
Approvals	NMI Approval (4,000 Divisions at 0.8 μ V/Division). C-tick Approval and CE Approval

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