

# RINSTRUM 5100

## DIGITAL BATCHING INDICATOR

### HIGHLIGHTS

- **Ideal for Batching**
- **99 Recipes**
- **Batch Size Adjustment by Percentage or Ratio**
- **Report and Usage Logs**
- **Up to 20 Materials**
- **Up to 3 Speed Fill**
- **Trade-Approved**



### FEATURES

The Rinstrum 5100 uses the very latest 24 bit A/D Converter and full surface-mount technology to achieve industry leading performance and stability. The “adjustable everything” digital setup allows this unit to be ideally configured to suit almost all weighing applications.

With more divisions, enhanced load cell input sensitivity and many innovative functions, this unit outperforms every other indicator in its class. The PCB design includes in-built protection against the harmful effects of electrical noise, RFI, transients, earthing loops and interference.

The 5100 overcomes the usual 3000 division limitation on trade load cells with both dual range and dual interval operations. There are five linearising points available to correct nonlinear cell outputs to ensure accuracy across the entire scale range.

The VAC version automatically operates from any AC voltage between 86 and 260 volts, from 48-62hz. Low voltage problems and electrical damage caused by brown-outs are totally eliminated with this model.

The primary anti-vibration filter is used to eliminate weight fluctuations caused by external influences such as vibration, rotational and out-of-balance forces without greatly affecting the A/D update rate.

The 5100 case dimensions are very compact, which makes it ideal for mounting in cluttered control panels where space is at a premium. It can be desk mounted or fitted with an IP65 stainless steel housing suitable for use in wet areas.

The 5100 excitation sensing eliminates weighing errors on long load cell cable runs and allows fine resolutions to be attained when used with barriers in Intrinsically Safe environments.

#### Standard Features:

- 100,000 divisions @ 60 updates per second
- High sensitivity input (0.15µV/division)
- Single range, dual range and dual interval modes
- Clock/calendar and battery backed memory standard
- “Plain English” setup and calibration messages
- Anti-vibration filter for mixer/in-motion applications
- Independent zero, span and linearising functions
- User-programmable printed ticket headers
- Full metal housing, CE Approved
- Audible and tactile feedback on sealed 1P65 keypad
- Backlit LCD with 20mm high, 6-digit primary display
- Network ready with internal terminating resistors
- AC and DC versions available

#### Other Features and Options:

- Serial outputs, two ports, multi-format
- Port A has RS-232, RS-422 and RS-485
- Port B has RS-232 with CTS / RTS
- Modbus Networking Protocol
- Intelligent Batching Software
- Analog output, 0 - 10V and 4 - 20mA:  
65,000 divisions, isolated, net/gross/display selectable
- Setpoint output, 50VDC - 500mA current limited:  
Four open-collector, transistor drive outputs  
Four remote inputs. All I/O is opto-isolated

# SPECIFICATIONS

PERFORMANCE	
Display	6 digit backlit LCD with 20mm high display
Display Resolution	Up to 100,000 divisions, minimum of 0.15 $\mu$ V/division
Count-by	1, 2, 5, 10, 20, 50, 100
Operating Modes	Single Range, Dual Interval, Dual Range and Direct mV/V
Zero Cancellation	$\pm$ 2.0mV/V
Span Adjustment	0.1mV/V to 3.0mV/V full scale
Stability/Drift	Zero: < 0.1 $\mu$ V/ $^{\circ}$ C, Span < 10ppm/ $^{\circ}$ C, Linearity < 20ppm, Noise < 0.05 $\mu$ V p-p
Operating Environment	Temperature -10 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	Averaging from 1 to 200 consecutive readings
Zero Button	Adjustable from 4% to 100% of full capacity
A/D CONVERTOR	
Type	24 bit
Resolution	8,388,608 internal counts
A/D Sync	Adjustable, 15 to 60 cycles/second
LOADCELLS	
Excitation	8 volts for up to 8 x 350 $\Omega$ loadcells
Load Cell Connection	6 wire + shield (intrinsic safety-barrier compatible)
SERIAL COMMS	
Serial Outputs	Dual RS-232, plus RS-422/RS-485
Capabilities	Automatic transmit, network and printer drive
Clock	Battery backed clock and calendar fitted
DIMENSIONS	
Case Size	179mm wide x 82mm high x 100mm deep
Panel Cutout	DIN 43 700 - 137mm +1 wide x 68mm +1 high
POWER SUPPLY	
DC	10-28VDC, 0.5A
AC	86-260VAC, 48-62Hz, 10VA
OPTIONS	
Analog Option Card	0-10 volts and 4-20mA optically isolated (65,000 count) plus 2 open collector outputs and 1 remote input
Setpoint Option Card	4 x isolated 50 volt, 500mA open collector transistor drives and 4 x isolated remote inputs (5V to 28V)