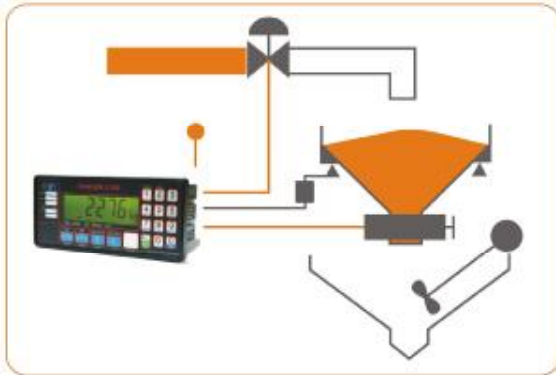# Rinstrum R5100

- 100,000d @ 0.25 µV/d
- 8 x 350Ω load cells
- Built in RS232 and RS485
- Built in AC and DC versions
- Analogue module with isolated outputs (option)
- Profibus DP (option) and Modbus ASCII
- 99 Recipes
- Batch size adjustment by percentage or ratio
- Report and usage logs
- Up to 20 Materials
- Up to 3 Speed Fill

With 50,000 units sold globally the 5000 series of indicators represents mature proven technology. With an extensive range of interfaces and mounting options, installations can be readily customized, which represents savings for the user. Support for Modbus ASCII and Profibus DP allows for easy system integration.

DIN standard housing - Allows for the unit to be readily mounted into standard DIN cutouts, reducing modifications to the units they are being installed into.

Analogue Output - 4-20mA or 0-10V with 1/65,000 resolution

High current outputs - Reduces wiring and the need for external relays, saving installation cost and reducing overall system size.

Isolated outputs - Eliminates the possibility of the external control systems influencing the weighing process, therefore simplifying system design and installation.

Robust I/O - Reduces unplanned outages due to component failure and reduced life time costs for the installation.

Wide DC operating range - Eliminates the need for third party power supplies saving on system complexity and cost.

Customised printing - Easier setup and reduces the need for additional external programming.

PC configuration software (View5000) - to transfer and backup configuration for faster, easier indicator setup.

DIN Rail Mount Relay Output Module

- four (4) voltage free relay outputs that are independent and isolated;
- rated to 250VAC and 8A
- normally open (N/O) and normally closed (N/C) contacts
- 12 or 24VDC versions
- Easy fault finding with LED indication;

From old data sheet

Recipe and Material Naming: Recipe and material names are stored/recalled in full alpha-numeric text up to 6 characters long.

Flexible Batching: Up to 100 recipes can be stored, each with it's own pre-set tare value. Batch sizes can be altered in either "%" or "times" values; ie 380% of value or 3.8 times value. This allows up to 10,000 separate batch sizes to be readily batched at any time.

Correction: The auto-inflight and auto-jogging software ensures accurate filling of all materials, including those with inconsistent flow characteristics.

Reporting: The 5100 also has both statistical data and full batch logging available

that can be viewed on the display, printing or downloaded.

Batch Status: There are 6 relay status annunicators to show which relay outputs are currently active. The secondary 3$1/2$ digit display can indicate the % completion of products, recipe number or used as a real time clock.

The totalising and counting functions are greatly enhanced; up to 100 product ID's can be stored and recalled by alpha/numeric codes and it's possible to get product totals listing number of items, total weight and the average weight (globally or by individual codes).

Manual filling applications using set point functions without the need for relays (concrete batch plants using a front-end loader to manually fill aggregate bins with various materials) are also well catered for. Up to 20 materials and weights can be stored/recalled in a single recipe. Individual relays can be globally assigned for all materials as a "fill in progress" output, or "tolerance error" or "batch complete" etc.

Multiple set point applications (up to 20 different feeders) can use the built-in software to communicate directly with various Mitsubishi and National PLC's. The PLC is instructed via the serial port which relays should be energised/switched.

Direct mV/V mode: The direct mV/V input mode is useful for calibrating large silos and vessels without using test weights.

The "adjustable everything" programme allows for the serial strings to be formatted to suit specific customer requirements. Printed data output can also be formatted to suit pre-printed weight tickets and two lines of customer header information can be inserted.

On-board clock/calendar/ram-backup ensures critical zero, tare, counting and batching data is not lost or corrupted during an unexpected power shutdown.

Profibus DP Support

The 5000 can be connected onto a Profibus-DP network with the Rinstrum 1400 Profibus-DP module. The 1400 translates the data from the indicators into the Profibus format. This allows the Profibus master to effectively extract status and weight data for example from the indicators and send commands to the indicators.

..now that's smart weighing.

Performance		5000	5100	5200	5230
Resolution		Up to 100,000d, minimum of 0.15 µV/division			
Approvals		C-tick, Trade Approval Australia NMI(S-363) 6,000d @ 0.5uV/d	C-tick, Trade Approval Australia NMI(S-363) 6,000d @ 1.5uV/d	CE, C-tick, Trade Approval Australia NMI(S-418) 6,000d @ 0.5uV/d Trade Approval Europe OIML 6,000d @ 0.5uV/d	
Zero Cancellation		+ / - 2.0mV/V			
Span Adjustment		0.1mV/V to 3.0mV/V full scale			
Excitation		8V for up to 8 x 350 ohm load cells (4-wire or 6-wire plus shield)		8V for up to 12 x 350 ohm load cells (4-wire or 6-wire plus shield)	
A/D Type		24 bit Sigma Delta with 8,388,608 internal counts			
Operating Environment		Temperature -10 to +50ºC, Humidity < 90% non condensing			
Display		Green LEDs with 14.5mm high 6 digit primary display	Backlit LCD with 20mm high 6 digit primary display		
Setup and Calibration		Full digital with visual prompting in plain messages			
Digital Filter		Averaging from 1 to 200 consecutive readings			
Zero Range		Adjustable from 4% to 100% of full capacity			
Power Supply Options	DC	12/24VDC 10VA			
	AC	110-240VAC 50/60Hz 10VA			
Correction		5 point linearity correction			
Serial Outputs		Serial 1: RS232/RS485 Serial 2: RS232			
Assignable Function Key		-	1		
Operating Modes		Single Range, Dual Range and Dual Interval			
Clock		Battery Backed Clock Calendar			
Accessory Cards					
Setpoint Accessory Card		4 x isolated 50V, 500mA open collector transistor drives and 4 x isolated digital inputs (5V to 28V)			
Combo Accessory Card		0 to10 V or 4-20mA opto isolated analogue output, two outputs and one input.			
No. of Option Slots		1	1 or 2 (Dual 12 - 24 VDC version)	1	
Protocols		Modbus ASCII			
Functions		2 Material Batching Totalising, Hold and Peak Hold	20 Material Batching 99 Recipes User defined material and recipe names Report and usage logs	Totalising, Counting, Grading 99 Products Catchweighing/check-weighing Configurable printing	Single and Split weighing 200 Memory allocations On-scale product filling
Setpoints		4	20	4	4
Packing Weights		1.1kg	1.3kg	1.2kg	1.2kg
Optional Mounting		Stainless steel desk and wall mounts, IP65 Stainless steel housing with desk mount			

Weight Indicator	Dimensions in mm (1 inch = 25.4 mm)	Mounting Options	
5000 Front View	5000 Side View	5200 Front View	5200 Side View