

RANGER 5000 Digital Indicator



- 60 Updates / Sec.
- 100,000 Divisions
- Extreme Reliability
- Anti-Vibration Filter
- Electrically Stabilised

The Ranger 5000 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 5000 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 non-linear 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 5000 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 5000's 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.

Australian Made – Two Year Warranty

- 100,000 divisions @ 60 updates per second
- High sensitivity input (0.15 μ V/division)
- Single range, dual range & dual interval modes
- Clock/calendar & battery backed memory standard
- "Plain English" setup & calibration messages
- Anti-vibration filter for mixer/in-motion applications
- Independent zero, span & linearising functions
- User-programmable printed ticket headers
- Full metal housing, CE Approved
- Audible & tactile feedback on sealed 1P65 keypad
- Green LED display, six digits, 14.5mm high
- Network ready with internal terminating resistors
- AC & DC versions available

OTHER FEATURES & OPTIONS:

- Serial outputs, two ports, multi-format
- Port A has RS-232, RS-422 & RS-485
- Port B has RS-232 with CTS / RTS
- Modbus Networking Protocol
- Intelligent Batching Software
- Analog output, 0 - 10V & 4 - 20mA
- 65,000 Divs., 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

PERFORMANCE		
Display	6 digit green LEDs, 14.5mm high	
Display resolution	Up to 100,000 divisions, minimum of 0.15 μ 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	+/- 2.0 mV/V	
Span adjustment	0.1mVN to 3.0mVN 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 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 CONVERTER		
Type	24bit	
Resolution	8,388,608 internal counts.	
A/D sync	Adjustable, 15 to 60 cycles/second	
LOAD CELLS		
Excitation	8 volts for up to 8 x 350 ohm load cells	
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 & calendar fitted	
DIMENSIONS		
Case size	150 mm wide x 72mm high x 100mm deep	
Panel cutout	DIN 43 700 - 1 37(+1)mm wide x 68(+1)mm high	
Power	DC	10-28 volts DC 0.5 A
	AC	86-260 volts AC 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, 500 mA open collector transistor drives and 4 x isolated remote inputs (5V to 28V).	
TEST FUNCTIONS		
	Load cell output test mode in mV/V	
	High resolution test mode, x10	
	Setpoint function test	
	Input function test	
	Analog output test, transmit Low/High	
	PC diagnostic/setup software, Dos / Windows	