

# Thermo Scientific Ramsey Micro-Tech 9101

## Belt conveyor scale integrator

The Thermo Scientific™ Ramsey™ Micro-Tech 9101 belt conveyor scale integrator incorporates advanced electronic design for improved performance and serviceability. This fifth-generation integrator is flexible enough to accommodate specific weighing applications and improve process efficiency in a variety of industries while providing vital information for the management and operation of your business.

### Features:

- State of the art LCD graphic display with four line display
- Self-diagnostics, alpha numeric alarm messages
- Built-in USB for information upload and download
- Multiple language interface
- Improved communication capabilities
- Audit trail
- Automatic zero and span calibration
- Auto zero tracking
- Alarms and failure detection
- Available in panel and field mount versions

Thermo Scientific Ramsey  
Micro-Tech 9101 Field Mount

Thermo Scientific Ramsey  
Micro-Tech 9101 Panel Mount



The Micro-Tech 9101 scale integrator electronics provides the intelligence to the weighing system, integrating output signals from the weighbridge and speed sensors to arrive at a rate of material flow and total material passed over the scale. The electronics also functions as the system power supply and incorporates all features that allow calibration, operation and diagnostics for the system.

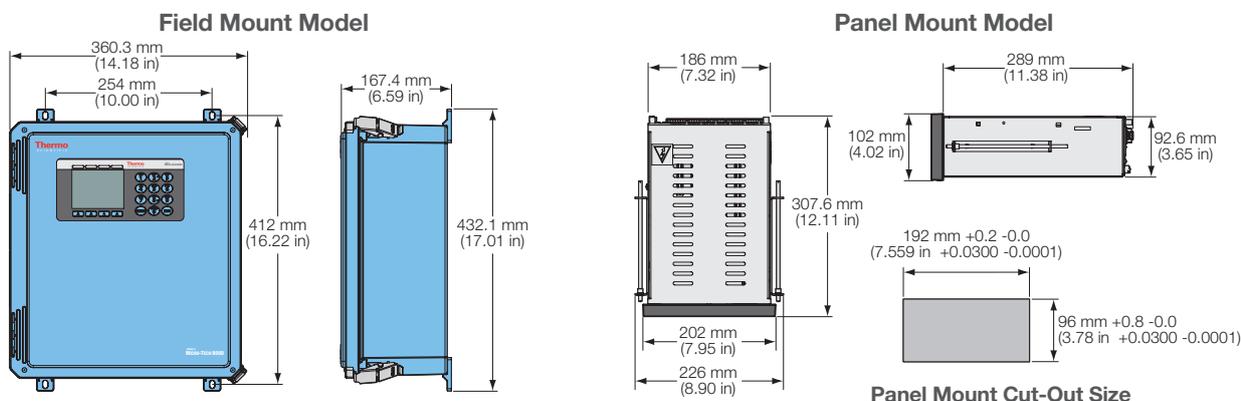
When combined with a Thermo Scientific conveyor belt scale weighbridge and a speed sensor, the Ramsey Micro-Tech 9101 integrator can accurately monitor production output, control product load-out and keep track of inventory to help you manage your process effectively and efficiently.



## Thermo Scientific Ramsey Micro-Tech 9101 Belt Conveyor Scale Integrator

General Specifications	
Material	Field Mount: Reinforced fiberglass housing, NEMA 4X, IP66, dust and watertight Panel Mount: Chromate mild steel chassis, front panel IP65, DIN 43700
Dimensions	Field Mount: 432 mm (17.01 in) x 360 mm (14.18 in) x 167 mm (6.59 in) Panel Mount: 308 mm (12.11 in) x 102 mm (4.00 in) x 202 mm (7.95 in)
Weight	Field Mount: 9 kg (20 lb); Panel Mount: 2.5 kg (5.5 lb)
HMI or Instrument Front	77 mm x 58 mm viewable LCD graphic display for easy reading, continuous backlit for ease of viewing indoors and outdoors; Available menu languages include English, German, Italian and Spanish
Environmental Specifications	
Storage Temperature	-30°C to +70°C (-22°F to +158°F)
Operating Temperature	-20°C to +60°C (-4°F to +140°F)
Environmental Tolerances	Relative humidity 80% maximum up to +31°C (+88°F) decreasing linearly to 50% at +40°C (+104°F) Altitude up to 2000 m (6,561 ft); Field Mount suitable for outdoor mounting
Electrical Specifications	
Nominal Voltage	Field Mount: 100-240 VAC; Panel Mount: 24 VDC +10%, -15% (user supplied)
Nominal Frequency	Field Mount: 50/60 Hz; Panel Mount: 24 VDC only, optional AC module available
Power Consumption	50 VA maximum
Load Cell Excitation Power Supply	5 VDC ±10%, 90 mA, minimum load impedance (58 ohms)
Load Cell	Load cell input circuits (2 each); Number: Up to six (6) 350-ohm load cells in parallel; Cable distance: 61 m (200 ft) or less without sense, or 914 m (3000 ft) with sense; Sensitivity: 0.5mV/V to 3.5 mV/V (keyboard selectable); Input Impedance: 1 M-ohm minimum; Maximum Usable Signal: 114% of 3 mV/V; Internal A/D counts: (3 mV/V): 6,440,000, one open collector output for pulse total (default) or alarms
Outputs	One open collector for pulse output (default) or alarms
Communications Specifications	
Standard Serial Interface	RS-232C provides support for modem; RS-485, 2- and 4-wire multi-drop
Communication Protocols	Profibus-DP
Ethernet	Ethernet/IP and Modbus/TCP
Built-in USB Port	Configuration and data storage
Expansion Options, (5) Slots	Optional 4-20 mA Out Board (0 to 20 mA or +4 to 20 mA); available in single channel or dual channel Optional Input/Output Expansion Boards: Relay output board (4 outputs); Opto-22 output board (4 outputs); DC input board (3 inputs); Opto-22 input board (3 inputs) Optional Digital Input/Output Board (8 inputs/8 outputs) Optional Analog Input/Output Board (2 inputs/2 outputs). Profibus Board or Standard Comms Board
Certifications	
Approvals	cCSAus, CE
Pending Approvals	SIL-2, Tick Mark, GOST, and other ATEX classifications

### Dimensional drawings for Thermo Scientific Ramsey Micro-Tech 9101 belt conveyor scale integrators



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