Series 14 Belt Scale Specifications

Integrator

Enclosure: Field Mount: NEMA 4X Fiberglass
Panel Mount: DIN 43700 96 x 288mm

Approvals: UL (optional), NTEP (optional)

Temperature: Operating: -10°C to +50°C (14°F to +122°F). Storage: -40°C to +70°C (-40°F to +158°F).

Power Requirements: 110/120/220/240VAC Switch selectable 50/60/Hz

Display/Keypad: Display: 4 line by 20 character, alpha numeric, vacuum fluorescent 5 mm character height, 5 x 7 dot matrix.
Keyboard: Run, menu, scroll (up/down), total, print, start, stop, clear and 3 soft keys labeled per selected operational routine. All keys provide tactile feedback.

Status Indicators: Zero cal, span cal, alarm, batch, ready

Units of Measure: Tons, Ltons, pounds, kg, tonnes

Memory: Lithium battery backed CMOS RAM

Accuracy/Non-Linearity: Less than .01 % of net for 0% to 105% of full scale

Circuit Construction: Microprocessor 32 bit, 16 MHZ

Expansion Slots: 5

Shipping Weight: Panel mount 18 lbs. Field mount 32 lbs.

Model 2301 Digital Inputs/Outputs

Inputs: Speed: Two (2) speed inputs from dual speed sensors. General Purpose: Two (2) total. (OPTO 22's optional).

Outputs: Alarm contact: One (1), failure for microprocessor - optically isolated.
General Purpose: Three (3) total. 1- OPTO 22 standard (additional OPTO 22's optional).
(Note: General purpose inputs and outputs are programmable to different functions: hi/lo rate, speed, batch end, conveyor run, etc. Each output selection requires an optional solid state module).

Digital I/O boards (optional boards for expansion slots): Type A: 16 inputs/4 outputs. Type B: 4 inputs/16 outputs.

Communications (optional): One (1) serial channel programmable for RS-232C, RS-485 Std., RS-485 multi-drop or 20 mA current loop (passive); Modem control; Clock/calendar.

Model 2001 Analog Inputs/Outputs

Weight: Via Comm link to exciter/digitizer

R-Cal: Precision resistor for electronic calibration

I/O Board Type A (optional): One (1) isolated current out 0-20 or 4-20mA

I/O Board Type B (optional): Two (2) differential voltage inputs -5 to +5VDC. Also selectable as current inputs 0-20 or 4-20mA. Two (2) isolated current outputs 0-20 or 4-20mA.

Weighbridges: Model 10-14

Weigh Span: Three or four idler suspension, 108" (2.74 meters) minimum weigh span

Clearance Requirements: Fits any standard conveyor. No space required above belt line. See plan view drawing for deck plate cut-out dimensions.

Idlers: Idlers are normally furnished by customer. We can supply on request.

Weighbridge Design: Unitized assembly consisting of full-floating weigh platform and two support beams which attach to the conveyor stringers

Conveyor Sizes: 18" - 84" belt widths (400mm - 2,000mm)

Weighbridge Construction: Mechanical steel tubing

Weighbridge Mounting: 8 bolts (four per support beam) to conveyor stringers

Model 2301-D Load Cell Digitizer/Exciter

Digitizer Type: Continuous electronic load cell to digital signal digitizing

Enclosure: NEMA 4, 14 ga. steel

Circuit Construction: "68332" 32-bit microprocessor with up to 512k bytes of ROM (program) memory and 512k bytes of RAM

Power Requirements: 115/230 VAC selectable 50 or 60 Hz

Communication Input/Output: 600,9600, 19.2k, 38.4k baud RS-485. Compatible with Micro-Tech 2301 Integrator.

Digital Inputs/Outputs: Sockets for four (4) OPTO-22 I/O modules

Calibration: None required

Operating Temperature Range: -40°C to +50°C (-40°F to +122°F)

Temperature Sensitivity: For -10° C to +50° C: Zero: 0.15 µV/°C maximum. Span: 4.0ppm/°C maximum. For-40° C to -10° C: Zero: 0.15 µV/°C maximum. Span: 8ppm/°C maximum

Accuracy: Within 0.044% of load cell capacity over full temperature range of -40° C to +50° C. Within 0.022% of load cell capacity -10° C to +50° C.

Linearity: Better than 0.01% of net, for inputs from 0 to 105% of full scale

Speed Input: 0-2000Hz. Compatible with Ramsey 60-12 Series Speed Sensors

Isolation: Load cell and speed sensor inputs are optically isolated from other circuits

Load Cell

Quantity: Four (4) in parallel

Enclosure: Environmentally protected "S" type cell

Mounting: Tension

Excitation: 10 VDC ±5%

Output: 3 mV/V ±1%

Non-Linearity: ‹ .03% FS

Non-Repeatability: .01% FS

Hysteresis: ‹ .02% FS

Operating Temperature: -65°F to 200°F

Temperature Sensitivity: Span .0008% FS/°F. Zero .0015% FS/°F.

Overload: Safe to 150% of load cell capacity. Ultimate to 300% FS. Sideload 50% FS.

Rating: FM Approved for Class II, Div 1 & 2, Groups. E, F & G. NTEP Type III, 5000 divisions. OMIL R60.

Digital Speed Sensor Model 61-12C

Type: Digital, brushless

Mounting: Direct to 5/8" diameter stub shaft on tail pulley, bend pulley, or lagged return roll

Housing: Weather-tight, epoxy finish, cast aluminum

Mounting Hardware: Supplied with coupling, restraint arm and restraint spring

Shipping Weight: 8 lbs

Approvals: FM Approval for Cl. I, Div. 2, GP. D; Cl. II, Div. 1 & 2, GP. E, F, & G

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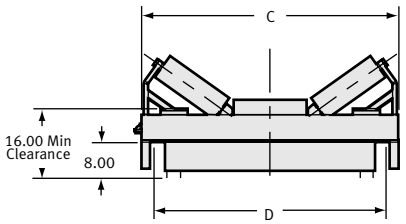
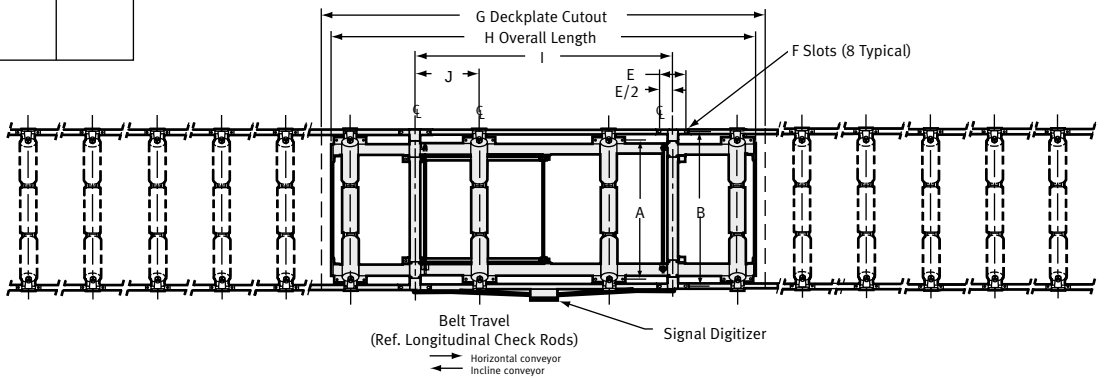
Specifications

Dimensions						
Belt Width	A	B	C	D	E	F
18	21.25	27	29.50	23.25	7.50	9/16 x 1
20	23.25	29	31.50	25.25		
24	27.25	33	35.50	29.25		
30	33.25	39	41.50	35.25		
36	39.25	45	47.50	41.25		
42	45.25	51	53.50	47.25	10.00	13/16 x 1
48	51.25	57	59.50	53.25		
54	57.25	63	65.50	59.25		
60	63.25	69	71.50	65.25		
72	75.25	81	83.50	77.25		
84	87.25	93	95.50	89.25		

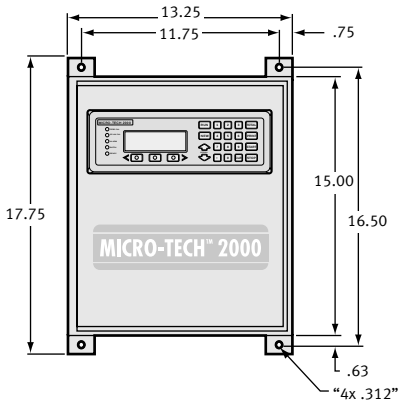
4 IDLER

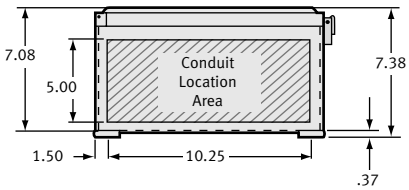


Idler Spacing	G	H	I	J
36	130	122	60	12
42	147	139	96	27
48	165	158	96	24

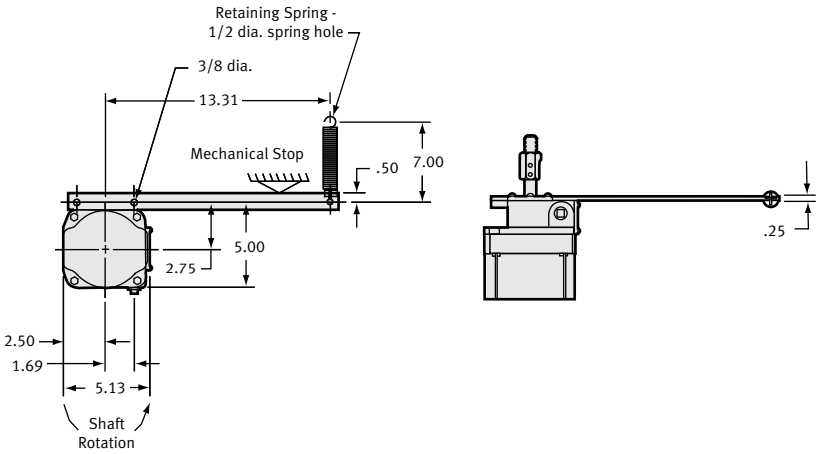


FIELD MOUNT

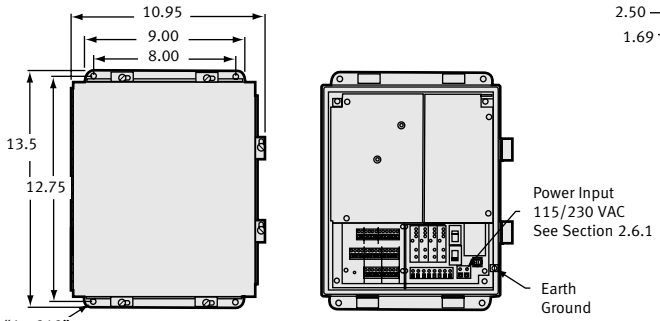


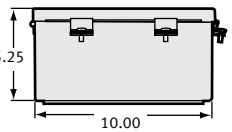


61-12C SPEED SENSOR

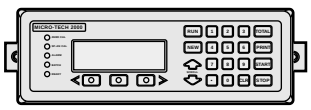


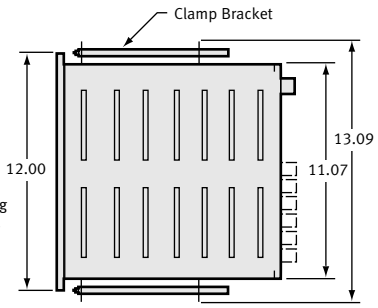
2301-D DIGITIZER

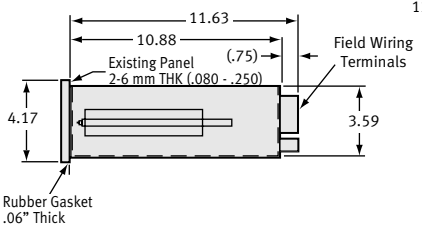




PANEL MOUNT







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501 90th Avenue N.W. • Minneapolis, MN 55433
Tel: (763) 783-2500 FAX: (763) 783-2525
http://www.thermoramsey.com

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