

BCi In-Motion Belt Scale System



Note: Idler not included and customer is responsible for mounting idler to weigh frame



920i[®] Integrator



Speed Wheel

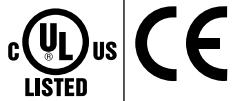


Magnetic Shaft Encoder

STANDARD FEATURES

- Large 4.6 in W x 3.4 in H 320 x 240 pixel back-lit LCD graphical display
- NEMA 4X/IP66 stainless steel display enclosure
- Four bidirectional communication ports
- Rate and speed time displayed by the hour, minute or second
- Measurement displayed in feet or meters
- Unit of rate displayed in tons, pounds, kilograms, metric tons or long tons
- Digital I/O for totalizer
- Analog outputs optional
- Alarm outputs optional
- For added security, integrator has the ability to be password protected
- Optional Communication protocol cards include ControlNet, Rockwell Automation's DeviceNet, Rockwell Automation's Remote I/O, Rockwell Automation's EtherNet IP, Profibus DP, 0-10 VAC or 4-20 mA analog output, Ethernet TCP/IP,
- Standard Communication RS-232, RS-485, 20 mA current loop
- Built in support for ticket printing

APPROVALS



SPECIFICATIONS: WEIGH FRAMES

Conveyor Widths:

18 to 72 in

Capacity:

Up to 10,000 tph

Belt Speed:

Up to 1,200 fpm

Accuracy Guidelines:

Single-two idler system: 0.5%-1% total error
 Three-four idler system: <0.5% total error

System Accuracy:

Guidelines assume clean belt with automatic tensioning system. Accuracy guidelines are typical. System accuracy may vary depending on environmental influences.

Applications:

Mining, quarries, bulk material blending, process control applications, utilities, truck/berge/rail loading, retrofit applications

SPECIFICATIONS: 920i INTEGRATOR

Power:

Line voltages: 115 or 230VAC,
 Frequency: 50 or 60 Hz

Power Consumption:

340 mA, maximum @ 115VAC (26W)
 240 mA @ 230VAC (26W)

Excitation Voltage:

10 ± VDC, 16 x 350 Ω or 32 x 700 Ω load cells per A/D card

Analog Signal Input Range:

-10 mV to +45 mV

Analog Signal Sensitivity:

0.3 μV/graduation minimum @ 7.5 Hz
 1.0 μV/graduation typical @ 120 Hz
 4.0 μV/graduation typical @ 960 Hz
 A/D Sample Rate:
 7.5 to 960 Hz, software selectable

Resolution:

Internal resolution: 8 million counts
 Weight display resolution: 9,999,999
 System Linearity:
 ± 0.01% full scale

Digital I/O:

Six I/O channels on CPU board; optional
 24-channel I/O expansion boards available

Circuit Protection:

RFI, EMI, ESD protection

Serial Ports:

Four ports on CPU board support up to 115,200 bps; optional dual-channel serial expansion boards available
 Port 1:Full duplex RS-232
 Port 2:RS-232 with CTS/RTS; PS/2 keyboard interface via DB-9 connector
 Port 3:Full duplex RS-232, 20 mA output
 Port 4:Full duplex RS-232, 2-wire RS-485, 20 mA output

Display:

4.6 W x 3.4 in H (116 W x 86 mm H),
 320 x 240 pixel VGA Liquid Crystal Display (LCD) module with adjustable contrast

Keyboard:

27-key membrane panel, tactile feel, PS/2 port for external keyboard connection

Operating Temperature:

14°F to 104°F (-10°C to 40°C)
 Industrial: 14°F to 122°F (-10°C to 50°C)

Dimensions:

Universal: 10.5 W x 10.9 H x 4.5 in D
 (266 W x 215 H x 114 mm D)
 Deep Universal: 10.75 W x 10.75 H x 5.4 in D
 (273 W x 273 H x 137 mm D)

Weight:

Universal enclosure: 9.5 lb (4.3 kg)
 Panel Mount enclosure: 8.5 lb (3.9 kg)
 Deep Universal: 11 lb (5.0 kg)

Rating/Material:

NEMA 4X/IP66, stainless steel

Warranty:

Two-year limited warranty on integrator and loadcells
 One-year limited warranty on speed-wheel and magnetic shaft encoder

Approvals:

CE marked;
 UL & C-UL listed (Universal, Deep & Wall Mount Enclosure)
 Custom Wall Mount approved for 508A (Optional)
 Panel Mount UL recognized

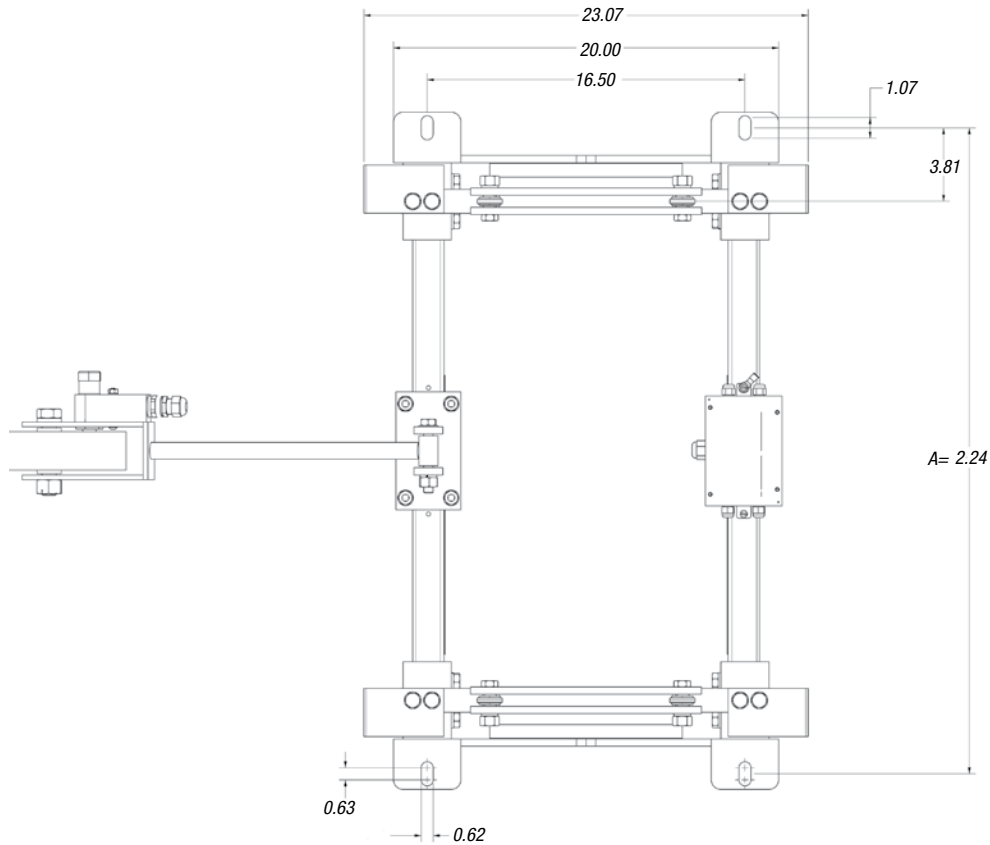
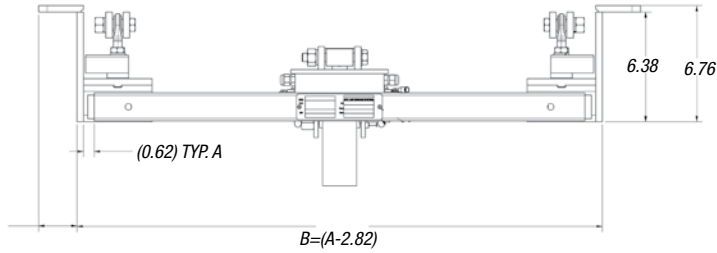
PART NUMBER/PRICE

PART #	DESCRIPTION	ESTIMATED BELT WIDTH	CAPACITY	PRICE
95205	20 in weigh frame	14 in	500 lb	Consult
95206	22 in weigh frame	16 in	500 lb	Consult
94968	24 in weigh frame	18 in	500 lb	Consult
95207	26 in weigh frame	20 in	500 lb	Consult
95208	30 in weigh frame	24 in	500 lb	Consult
95209	36 in weigh frame	30 in	500 lb	Consult
95210	42 in weigh frame	36 in	500 lb	Consult
95211	48 in weigh frame	42 in	500 lb	Consult
95212	54 in weigh frame	48 in	500 lb	Consult
96717	60 in weigh frame	54 in	1,000 lb	Consult
96718	66 in weigh frame	60 in	1,000 lb	Consult
96719	72 in weigh frame	66 in	1,000 lb	Consult
Consult	Light capacity weigh frames			Consult
Stainless Steel Weigh Frames				
110837	20 in weigh frame	14 in	500 lb	Consult
110838	22 in weigh frame	16 in	500 lb	Consult
110839	24 in weigh frame	18 in	500 lb	Consult
110840	26 in weigh frame	20 in	500 lb	Consult
105246	30 in weigh frame	24 in	500 lb	Consult
110841	36 in weigh frame	30 in	500 lb	Consult
110842	42 in weigh frame	36 in	500 lb	Consult
110843	48 in weigh frame	42 in	500 lb	Consult
110844	54 in weigh frame	48 in	500 lb	Consult
110845	60 in weigh frame	54 in	500 lb	Consult
110846	66 in weigh frame	60 in	500 lb	Consult
110847	72 in weigh frame	66 in	500 lb	Consult
Integrators				
107615	Belt scale integrator with UPS 115VAC			Consult
107616	Belt scale integrator with UPS 230VAC			Consult
120550	Belt scale integrator with deep enclosure, 2 slot expansion, EtherNet IP for A-B, 115 V			Consult
120551	Belt scale integrator with deep enclosure, 2 slot expansion, EtherNet IP for A-B, 230 V			Consult
95214	Belt scale integrator 115VAC, deep enclosure			Consult
95215	Belt scale integrator 230VAC, deep enclosure			Consult
150811	Belt scale integrator with deep enclosure, 2 slot expansion, analog output			Consult
Speed Wheel				
94969	Speed wheel assembly		10 PPR NPN Configuration	Consult
152626	500 PPR high resolution encoder kit, requires 152247 if magnetic coupling is required			Consult
152247	Magnetic coupler, use with 152626			Consult
Idler Mounting Bolts (set of 2)				
126282	3 in angle iron base			Consult
126283	4 in angle iron base			Consult
Static Weights				
99708	15 lb weight			Consult
99709	30 lb weight			Consult
99696	3 in static weight mounting bracket (set of 2)			Consult
99922	4 in static weight mounting bracket (set of 2)			Consult

Idler hardware not included with weigh frames

Please complete the Belt Scale Questionnaire on the next page to obtain a firm quote

BELT SCALE



Note: Cables on drawings removed for clarity. Idler mounting hardware is not included in weigh frame, see idler mounting bolts above

Belt Scale Questionnaire

RICE LAKE
WEIGHING SYSTEMS

To be the best by every measure®

Company _____ Prepared By _____ Date _____

Address _____

City _____ State/Zip/Country _____

Phone _____ Fax _____ Email _____

Application Notes:

MATERIAL

Material being measured _____ Bulk Density (lbs/cu. ft) _____

Corrosive state of material (choose one) High Moderate Not Corrosive

Feed Rate t/hr: _____ min. _____ max. Accuracy Required: +/- _____ %

Constant Feed Rate: Yes No

CONVEYOR

(Supply sketch where possible) Sketch attached

Application: Inventory Load out Control Blending

Profile: Horizontal Incline/decline _____ (deg) Variable Incline _____ (deg) Curved

Automatic Tensioning Apparatus: Yes No

Access Side: (looking in direction of belt travel) Left Right Both

Is Area Classified as an Explosive Environment? Yes No

Does the current conveyor have scale grade idlers? Yes No

Belt Speed (ft/m per minute): _____ min. _____ max.

Condition of belt? _____

What type of splice does the belt have? _____

Belt Length: _____ ft/m Belt Width: _____ in/cm Belt Cleaning Device: Yes No

Idler Diameter: _____ in/cm Idler Spacing: _____ in/cm Tail Pulley Diameter: _____ in/cm

Trough Angle: _____ degrees Conveyor Length: _____ ft/m

INTEGRATOR REQUIREMENTS

Integrator Type: Deep Universal Panel Mount Wall Mount

Power Available: 115V 230V 9-36VDC

Communications: AB Remote I/O Device Net Profibus-DP Ethernet IP

Analog Output RS-232 (standard) Ethernet TCP/IP Control Net

Remote Display Rate: Yes No Remote Display Totalizer: Yes No

Speed Sensor: Speed Wheel Shaft Encoder Magnet

Printer: Model _____

Belt Scale Questionnaire

