

<i>GENERAL SPECIFICATION (SERIES 5200 CPU ASSEMBLY)</i>	
APPLICATION	Integrator or Controller, NTEP Belt Scales, Weighbelt Feeders, LIW Feeders and LIW Batch Controller
FUNCTION	Rate Measurement, Rate or Proportional Control and Totalization.
ENCLOSURE	Standard Enclosure, Type 4/IP 66, 350 H x 300 W x 200 D (mm), Painted Steel Optional Enclosures, Type 4X/IP 66, 3350 H x 300 W x 200 D (mm), 304 or 316 Stainless Steel
CONNECTIVITY	Optional, Serial Communications, Allen Bradley DF1 or Modbus RTU (RS-232, RS-422 or RS-485) Optional, Fieldbus Communications, Ethernet/IP-Modbus/TCP, Profibus DP or Native DeviceNet
APPROVALS	CUL Listed (UL File Number E208487), CE Compliance (Test Report Number 30562794.001)
CABLE LENGTH	Maximum cabling length of 4000 wire feet between CPU and weighing equipment
INPUT POWER	120 – 240 VAC, 1 Phase, 50 – 60 Hertz (Fused Universal Power Supply), ≤ 350 Watts
<i>ENVIRONMENTAL CONDITIONS</i>	
TEMPERATURE	14 to 158° F / -10 to 70° C (Operating), -4 to 185° F / -20 to 85° C (Storage)
HUMIDITY	10 to 90% Noncondensing (Operating), 5 to 95% Noncondensing (Storage)
ALTITUDE	Up to 2000 Meters (Operating), Up to 3000 Meters (Storage)
COOLING	Method Natural Convection
POLLUTION	Degree of Pollution 2
CLASSIFICATION	Area Location, Nonhazardous
<i>PROCESSOR SPECIFICATIONS</i>	
PROCESSOR	Embedded PC with Flash Card
DISPLAY	4 Line x 20 Character Vacuum Fluorescent Dot Matrix (Full Messaging)
KEYBOARD	24 Graphic Keyboard Controls with Tactile/Audio Feedback
LOAD RESOLVER	24 Bit A/D Converter, Resolution 0 - 1,048,575 for -15 to 125% Full Scale Output
SPEED RESOLVER	Digital, Resolution 0.33 to 7,500 Hertz for 0 to 100% Belt Speed
<i>INPUT / OUTPUT SPECIFICATION</i>	
ANALOG INPUTS (QTY 2)	Isolated 4–20 mA, 2 wire loop powered, 169 Ohm Input Impedance, 22 Bit Resolution AI-1¹ and AI-2¹ , Field Selectable (See manual for complete list of assignments)
ANALOG OUTPUTS (QTY 2)	Isolated 4–20 mA into 750 Ohm Load, Isolated, +24 VDC Source, 16 Bit Resolution AO-1 and AO-2¹ , Field Selectable (See manual for complete list of assignments)
DIGITAL INPUTS (QTY 4)	Require Dry Contact Closures, Sourcing +12 VDC with 10 mA Minimum Sink Current DI-1 , Factory Set for Drive Status DI-2, DI-3 and DI-4 , Field Selectable (See manual for complete list of assignments)
FREQUENCY INPUT (QTY 1)	Isolated, Optical Transistor, Sourcing +5 VDC or Sinking 3-24 VDC, 0 – 25 Kilohertz FI-1¹ , Field Selectable (See manual for complete list of assignments)
DIGITAL OUTPUTS (QTY 2)	Isolated Relays, Form A Contacts, 240 VAC / VDC, 120 mA Maximum DO-1 and DO-2 , Field Selectable (See manual for complete list of assignments)
DIGITAL OUTPUTS (QTY 2)	Isolated Relays, Form C Contacts, 240 VAC / VDC, 120 mA Maximum DO-3 and DO-4 , Field Selectable (See manual for complete list of assignments)
TOTALIZER OUTPUTS (QTY 2)	Isolated Relays, Form A Contacts, 240 VAC / VDC, 120 mA Maximum TOT-1 and DO-TOT-2 , Factory Set for Master and Secondary Totalizers
FAULT OUTPUT (QTY 1)	Isolated Relays, Form C Contacts, 240 VAC / VDC, 120 mA Maximum FAULT , Factory Set for Processor Fault
FREQUENCY OUTPUT (QTY 1)	Transistor (FET), Sourcing +24 VDC with 10 mA Minimum Sink Current, 0 – 25 Kilohertz FO-1 and FO-2¹ , Field Selectable (See manual for complete list of assignments)

¹ Indicates expanded inputs and outputs which are optional for Integrator and LIW Batch Controller applications.

GENERAL SPECIFICATIONS (SERIES 5200 SCALE UNIT (SU) ASSEMBLY)	
APPLICATION	Separate assembly. Mounted to weigh equipment by Thayer and prewired to critical sensors.
FUNCTION	Converts weigh equipment's critical sensor signals into digital format for transmission to CPU Unit.
ENCLOSURE	Standard Enclosure, Type 4/IP 66, 300 H x 250 W x 150 D (mm), Painted Steel Optional Enclosures, Type 4X/IP 66, 300 H x 250 W x 150 D (mm), 304 or 316 Stainless Steel
CONNECTIVITY	Serial Communications (RS-485) between SU and CPU Unit
APPROVALS	CUL Listed (UL File Number E208487), CE Compliance (TUV Test Report Number 72139257)
CABLE LENGTH	Maximum cabling length of 10 wire feet between SU and load sensor, prewired by Thayer
INPUT POWER	18 – 48 VDC, Fused, Power supplied by CPU Unit, ≤ 10 Watts
ENVIRONMENTAL CONDITIONS	
TEMPERATURE	14 to 158° F / -10 to 70° C (Operating), -4 to 185° F / -20 to 85° C (Storage)
HUMIDITY	10 to 90% Noncondensing (Operating), 5 to 95% Noncondensing (Storage)
ALTITUDE	Up to 2000 Meters (Operating), Up to 3000 Meters (Storage)
COOLING	Method Natural Convection
POLLUTION	Degree of Pollution 2
CLASSIFICATION	Area Location, Nonhazardous
PROCESSOR SPECIFICATIONS	
PROCESSOR	Multi Microprocessor Based, Master/Slave Setup Configuration
RESOLUTION SPECIFICATIONS	
LOAD RESOLVER	24 Bit A/D Converter, Resolution 0 - 1,048,576 for -15 to 125% Full Scale Output
SPEED RESOLVER	Digital, Resolution 0.33 to 7,500 Hertz for 0 to 100% Belt Speed
SUPPORTED SENSORS	
WEIGHT/LOAD	Linear Variable Differential Transformer (LVDT) or Strain Gauge
SPEED/VELOCITY	Single/Dual Channel Line Drive Encoders, Proximity Switches (Open Collector) and Accelerometers
TEMPERATURE	Analog or Digital
SENSOR SUPPLY SPECIFICATIONS	
WEIGHT/LOAD	Universal Load Board, Excitation, 4.8 Volt Sine Wave @ 1000 Hertz Strain Gauge Load Board, Excitation, 5 VDC Square Wave @ 25 Hertz
SPEED/VELOCITY	Dual Channel (Line Driver) Board, +12 VDC Supply Voltage, 250 mA Maximum Current Draw Single Channel (NPN Open Collector) Board, +12 VDC Supply Voltage, 250 mA Maximum Current Draw Single Channel (Accelerometer) Board, +20 mA Constant Current Source
TEMPERATURE	+5 VDC Supply Voltage, 1.5 mA Maximum Current Draw
INPUT / OUTPUT SPECIFICATION	
DIGITAL INPUTS (QTY 4)	Require Dry Contact Closures, Sourcing +12 VDC with 10 mA Minimum Sink Current DI-1 , Factory set for Automatic Test Weight Lifter Limit Switch (Test Weight in Weigh Position) DI-2 , Factory set for Belt Mistracking Limit Switch (Integrators, Belt Scales and Weighbelts Only) DI-3 and DI-4 , Factory Reserved for Future Weigh Equipment Limit Switches
DIGITAL OUTPUT (QTY 1)	Isolated Relay, Form A Contact, +12 VDC, 220 mA Maximum DO-1 , Factory set for Activating Automatic Test Weight Lifter Limit Solenoid
PORT SPECIFICATION (FACTORY USE ONLY)	
PROGRAMMING	RJ12 Connection (X2), Used for Field Updating of Microprocessor Flash Memory
DIAGNOSTICS	DB9 Connection (X1), Used for Advanced Diagnostics and Monitoring