

THAYER SCALE, HYER INDUSTRIES, INC. S52i INSTRUMENT DATA SHEET



	GENERAL SPECIFICATIONS (S52i INTEGRATOR INSTRUMENT)
APPLICATION	Integrator, Belt Scales or Weighbelts
FUNCTION	Rate Measurement, Inventory Control, Totalization and Dual Preset Batch Counter
ENCLOSURE	Standard, Panel Mount, Type 1, 8 H x 6 W x 5 D (in), Cutout 7.5 H x 5.5 W (in)
	Optional 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	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	Underwriters Laboratories, CUL Listed, UL File Number E208487
CABLE LENGTH	Maximum cabling length of 1000 wire feet between instrument and weighing equipment
INPUT POWER	120 – 240 VAC, 1 Phase, 50 – 60 Hertz (Fused Universal Power Supply), ≤ 43 Watts
	ENVIRONMENTAL CONDITIONS
TEMPERATURE	14 to 149° F / -10 to 65° 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	Embedded PC with Flash Card
DISPLAY	4 Line x 20 Character Vacuum Fluorescent Dot Matrix (Full Messaging)
KEYBOARD	21 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
SUPPORTED SENSORS	
WEIGHT/LOAD	Linear Variable Differential Transformer (LVDT) or Strain Gauge
SPEED/VELOCITY	Single/Dual Channel Line Drive Encoders or Inductive Proximity Switches (Open Collector)
TEMPERATURE	Analog or Digital
SENSOR SUPPLY SPECIFICATIONS	
WEIGHT/LOAD	Excitation, 5 Volt Sine Wave @ 1030 Hertz, 62.5 mA, 85 – 1.2 K Ohms
SPEED/VELOCITY	+12 VDC Supply Voltage, 250 mA Maximum Current Draw
TEMPERATURE	+5 VDC Supply Voltage, 1.5 mA Maximum Current Draw
INPUT / OUTPUT SPECIFICATION	
ANALOG INPUT (QTY 1)	Isolated 4-20 mA, 2 wire loop powered, 169 Ohm Input Impedance, 22 Bit Resolution
	AI-1, Field Selectable (See manual for complete list of assignments)
ANALOG OUTPUT (QTY 1)	Isolated 4–20 mA into 750 Ohm Load, Isolated, +24 VDC Source , 16 Bit Resolution
	AO-1, 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-DS , Factory Set for Drive Status
	DI-1, DI-2 and DI-3, Field Selectable (See manual for complete list of assignments)
DIGITAL OUTPUTS (QTY 2)	Isolated Relays, Form A Contacts, 140 VAC / 200 VDC, 50 mA Maximum
	DO-1 and DO-2, Field Selectable (See manual for complete list of assignments)
DIGITAL OUTPUTS (QTY 2)	Solid State Relays, Form A Contacts, 240 VAC / VDC, 100 mA Maximum
	DO-3, Field Selectable (See manual for complete list of assignments)
	DO-4, Factory Set for Remote Totals (Totalizer)