THAYER SCALE, HYER INDUSTRIES, INC.
S52c INSTRUMENT DATA SHEET

GENERAL SPECIFICATIONS (S52c CONTROLLER INSTRUMENT)			
APPLICATION	Controller, Weighbelt Feeders, LIW Feeders and LIW Batch Controller		
FUNCTION	Rate Measurement, Rate or Proportional Control and Totalization.		
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	23 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, Proximity Switches (Open Collector) and Accelerometers		
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)		