

SERIES 20 (1 idlers station) - BELT SCALE

SERIES 10-20/1 BELT SCALES - COMPLETE SYSTEMS (No ATEX, No MID)

Belt scale weighbridge Series 20, by Thermo Scientific

Pivoted weighing bridge designed to support n.1 idler stations(Customer's supply)

Thermo Ramsey's factory preassembled, to be installed very easily on conveyors

Weighing bridge composed by:

- n.1 low torsion pivoted frame (n.2 pivots) made by painted steel, rigid and rugged to be always aligned with the conveyor's frame;
- n.2 pivots;
- n.1 or n.2 (depending on width) high precision load cell (stainless steel, IP67/68, C3, 3 mt cable) and spherical joint.
- Painting cycle with blu RAL5005 final color (different, on request): SA 2,5 sandblasting (standard ISO 8501-1;1989), finil coat with polyester powder (minimum medium thickness 100 microns), curing to ~200°C;
- n.1 digital speed pick-up (SPU) model 60-12 (or equivalent);
- n.1 junction box model IT8041PD, polycarbonate, IP54, for cable connections of two (2) load cells and one (1) speed pick-up;
- n.1 microprocessor control unit, model Micro-Tech 9101F (p/n 136033), field mount IP66 (NEMA-4X) enclosure, 98÷230Vac, 50-60 Hz. Comes standard with (4) programmable relè out, (2) optoinsulated digital in, (1) digital static out (FAIL or pulse), (1) Ethernet 100baseT, RJ45 interface, (1) serial out RS232/RS485 multidrop Modbus/RTU, Modbus/TCP, Ethernet/IP, (1) integrated USB, (3) programmable opto-insulated digital in and (4) optional expansion slots, available software languages: English, Spanish, German, Italian, French, Chinese simplified;
- working temperature (°C): -25 ÷ +50 (not condensing).



PART NO	SHORT DESCRIPTION	ADD INFO	
10-20-1-800	FRAME (1020B1800) + SPU (6012C) +JB (IT8041PD) +MT 9101F (p/n 136033)	BW up to 800 mm	
10-20-1-1200	FRAME (1020B11200) + SPU (6012C) +JB (IT8041PD) +MT 9101F (p/n 136033)	BW 851+1.200 mm	
10-20-1-1600	FRAME (1020B11600) + SPU (6012C) +JB (IT8041PD) +MT 9101F (p/n 136033)	BW 1.201+1.600 mm	
10-20-1-2000	FRAME (1020B12000) + SPU (6012C) +JB (IT8041PD) +MT 9101F (p/n 136033)	BW 1.601+2.000 mm	

SERIES 10-20/1 BELT SCALES - COMPLETE SYSTEMS - LEGAL-FOR-TRADE APPROVED VERSION ACCORDING TO MID Class 0.5, I AND II

Belt scale weighbridge Series 20, by Thermo Scientific - Approved version for Legal-for-Trade applications accoring to MID

Pivoted weighing bridge designed to support n.1 idler stations(Customer's supply)

Thermo Ramsey's factory preassembled, to be installed very easily on conveyors

Weighing bridge composed by:

- n.1 low torsion pivoted frame (n.2 pivots) made by painted steel, rigid and rugged to be always aligned with the conveyor's frame;
- n.2 pivots;
- n.1 or n.2 (depending on width) high precision load cell (stainless steel, IP67/68, C3, OIML R60, 3 mt cable) and spherical joint.
- Painting cycle with blu RAL5005 final color (different, on request): SA 2,5 sandblasting (standard ISO 8501-1;1989), finil coat with polyester powder (minimum medium thickness 100 microns), curing to ~200°C;
- n.1 digital speed pick-up (SPU) model 60-12 (or equivalent);
- n.1 junction box model IT8041PD, polycarbonate, IP54, for cable connections of two (2) load cells and one (1) speed pick-up;
- n.1 microprocessor control unit, model Micro-Tech 9201F (p/n 141752), field mount IP66 (NEMA-4X) enclosure, 98÷230Vac, 50-60 Hz. Comes standard with A/D "PREMIUM" converter, (4) programmable relè out, (2) optoinsulated digital in, (1) digital static out (FAIL or pulse), (1) Ethernet 100baseT, RJ45 interface, (1) serial out RS232/RS485 multidrop Modbus/RTU, Modbus/TCP, Ethernet/IP, (1) integrated USB, (3) programmable opto-insulated digital in and (4) optional expansion slots, available software languages: English, Spanish, German, Italian, French, Chinese simplified;
- working temperature (°C): -25 ÷ +50 (not condensing).



PART NO	SHORT DESCRIPTION	ADD INFO	
10-20/1-800-WM	FRAME (1020B1800WM) + SPU (6012C) +JB (IT8041PD) +MT 9201F (p/n 141752)	BW up to 800 mm	
10-20/1-1200-WM	FRAME (1020B11200WM) + SPU (6012C) +JB (IT8041PD) +MT 9201F (p/n 141752)	BW 851+1.200 mm	
10-20/1-1600-WM	FRAME (1020B11600WM) + SPU (6012C) +JB (IT8041PD) +MT 9201F (p/n 141752)	BW 1.201+1.600 mm	
10-20/1-2000-WM	FRAME (1020B12000WM) + SPU (6012C) +JB (IT8041PD) +MT 9201F (p/n 141752)	BW 1.601+2.000 mm	

SERIES 10-20/1 - BASIC OPTIONS FOR MECHANICAL PART

PART NO	MODEL NO.		
10-20B1-C/ADDER	COUNTERWEIGHTED CARRIAGE (BW < 1000 MM)		
P-VERN/BIL/1020/C5-M	PAINT CYCLE FOR AGGRESSIVE/MARINE AMBIENT - 340 MICRON - C5-M (UNI-EN ISO 12944)		
10-XX-KITVITI-INOX	SET OF SCREWS AND BOLTS USED FOR THE BELT SCALE's FRAME		
10-XX-SET/VITERIE	SET OF SCREWS AND BOLTS USED TO FIX THE BELT SCALE's FRAME TO THE CONVEYOR		
10-XX-SET/SPESSORI-MIX	SET OF SHIMS TO ALIGN THE BELT SCALE - Same as p/n 003141		
ATEX 22 (consult Factory)	SYSTEM SUITABLE FOR INSTALLATION IN ATEX ZONE 22 (LC, JB, SPU and MT-MET)		
ATEX 21 (consult Factory)	SYSTEM SUITABLE FOR INSTALLATION IN ATEX ZONE 21 (LC, JB, SPU and MT-MET)		
P-SPEC/BIL/1020-1/AISI304	BELT SCALE's FRAME MADE BY STAINLESS STEEL AISI 304		
P-SPEC/BIL/1020-1/AISI316L	BELT SCALE's FRAME MADE BY STAINLESS STEEL AISI 316L		

SERIES 10-20/1 - PACKING

Fumigated wooden box for truck transport of n°1 BS 10-20/1

PART NO	MODEL NO.		
CAS1020B1-800	WOODEN BOX - STD - BW < 800 MM (< 31") - BS - 10-20/1 - 170x135x50(h) CM - GROSS WEIGHT ~210 KG		
CAS1020B1-1200	WOODEN BOX - STD - BW 801+1.200 MM (32"+47") - BS - 10-20/1 - 170x175x50(h) CM - GROSS WEIGHT ~250		
CAS1020B1-1600	WOODEN BOX - STD - BW 1.201+1.600 MM (48"+60") - BS - 10-20/1 - 170x215x50(h) CM - GROSS WEIGHT ~29		
CAS1020B1-2000	WOODEN BOX - STD - BW 1.601+2.000 MM (64"+80") - BS - 10-20/1 - 170x255x50(h) CM - GROSS WEIGHT ~33		

Belt loading requirements:

1. application range is 22 kg/m (50 lbs/ft) to 815 kg/m (1800 lbs/ft), calculated: $kg/m = (t/h / 3,6) / m/sec$;
2. for 10-20B1-C application range is 9 kg/m (20 lbs/ft) to 23 kg/m (50 lbs/ft), calculated: $kg/m = (t/h / 3,6) / m/sec$;
3. applications with loads <30 kg/m (25 lbs/ft) or > 600 kg/m (400 lbs/ft) require factory review;
4. net weight on load cell = wt. On idler x .75 (up to 1.000 mm or 36" belt width);
5. net weight on load cell = wt. On idler x .71 (over 1.000 mm or 42" belt width);
6. minimum net weight must be greater than 15% of load cell capacity;
7. maximum net weight must not exceed 85% of load cell capacity;
8. maximum idler spacing 800 mm (~32").

SERIES 20 or 17 (2 idlers stations) - BELT SCALE

SERIES 10-20/B2 (or 10-17/2D) BELT SCALES - COMPLETE SYSTEMS (No ATEX, No MID)

Belt scale weighbridge Series 20(B2) or 17(2D), by Thermo Scientific

Pivoted weighing bridge designed to support n.2 idler stations (Customer's supply) on reversible conveyors or stacker/reclaimers applications with positive to negative inclination changes

Thermo Ramsey's factory preassembled, to be installed very easily on conveyors

Weighing bridge composed by:

- n.2 low torsion pivoted frames made by painted steel, rigid and rugged to be always aligned with the conveyor's frame;

- n.4 pivots;

- n.1 (or 2 depending on the belt width) high precision load cells (stainless steel, IP67/68, C3, 3 mt cable) and spherical joints.

Painting cycle with blu RAL5005 final color (different, on request): SA 2,5 sandblasting (standard ISO 8501-1;1989), finil coat with polyester powder (minimum medium thickness 100 microns), curing to ~200°C;

- n.1 digital speed pick-up (SPU) model 60-12 (or equivalent);

- n.1 junction box model IT8041PD, polycarbonate, IP54, for cable connections of two (2) load cells and one (1) speed pick-up;

- n.1 microprocessor control unit, model Micro-Tech 9101F (p/n 136033), field mount IP66 (NEMA-4X) enclosure, 98÷230Vac, 50-60 Hz. Comes standard with (4) programmable relè out, (2) optoinsulated digital in, (1) digital static out (FAIL or pulse), (1) Ethernet 100baseT, RJ45 interface, (1) serial out RS232/RS485 multidrop Modbus/RTU, Modbus/TCP, Ethernet/IP, (1) integrated USB, (3) programmable opto-insulated digital in and (4) optional expansion slots, available software languages: English, Spanish, German, Italian, French, Chinese simplified;



PART NO	SHORT DESCRIPTION	ADD INFO
10-20-B2-800	FRAME (1020B2800) + SPU (6012C) +JB (IT8041PD) +MT 9101F (p/n 136033)	BW up to 800 mm
10-20-B2-1200	FRAME (1020B21200) + SPU (6012C) +JB (IT8041PD) +MT 9101F (p/n 136033)	BW 851+1.200 mm
10-20-B2-1600	FRAME (1020B21600) + SPU (6012C) +JB (IT8041PD) +MT 9101F (p/n 136033)	BW 1.201+1.600 mm
10-20-B2-2000	FRAME (1020B22000) + SPU (6012C) +JB (IT8041PD) +MT 9101F (p/n 136033)	BW 1.601+2.000 mm

SERIES 10-20/B2 - BASIC OPTIONS FOR MECHANICAL PART

SERIES 10-20/1 - BASIC OPTIONS FOR MECHANICAL PART

PART NO	MODEL NO.
P-VERN/BIL/1020/C5-M	PAINT CYCLE FOR AGGRESSIVE/MARINE AMBIENT - 340 MICRON - C5-M (UNI-EN ISO 12944)
10-XX-KITVITH-INOX	SET OF SCREWS AND BOLTS USED FOR THE BELT SCALE's FRAME
10-XX-SET/VITERIE	SET OF SCREWS AND BOLTS USED TO FIX THE BELT SCALE's FRAME TO THE CONVEYOR
10-XX-SET/SPESSORI-MIX	SET OF SHIMS TO ALIGN THE BELT SCALE - Same as p/n 003141
ATEX 22 (consult Factory)	SYSTEM SUITABLE FOR INSTALLATION IN ATEX ZONE 22 (LC, JB, SPU and MT-MET)
ATEX 21 (consult Factory)	SYSTEM SUITABLE FOR INSTALLATION IN ATEX ZONE 21 (LC, JB, SPU and MT-MET)
P-SPEC/BIL/1020-1/AISI304	BELT SCALE's FRAME MADE BY STAINLESS STEEL AISI 304
P-SPEC/BIL/1020-1/AISI316L	BELT SCALE's FRAME MADE BY STAINLESS STEEL AISI 316L

SERIES 10-20/B2 - PACKING

Fumigated wooden box for truck transport of n°1 BS 10-20/B2

PART NO	MODEL NO.
CAS1020B2-800	WOODEN BOX - STD - BW < 800 MM (< 31") - BS - 10-20/B2 - 320x135x50(h) CM - GROSS WEIGHT ~310 K
CAS1020B2-1200	WOODEN BOX - STD - BW 801+1.200 MM (32"+47") - BS - 10-20/B2 - 320x175x50(h) CM - GROSS WEIGHT ~350 K
CAS1020B2-1600	WOODEN BOX - STD - BW 1.201+1.600 MM (48"+60") - BS - 10-20/B2 - 320x215x50(h) CM - GROSS WEIGHT ~380 K
CAS1020B2-2000	WOODEN BOX - STD - BW 1.601+2.000 MM (64"+80") - BS - 10-20/B2 - 320x255x50(h) CM - GROSS WEIGHT ~420 K

Belt loading requirements:

1. belt loading (kg/m) calculated as follow: $kg/m = t/h / 3,6 / m/sec$;
2. minimum net weight must be greater than 15% of load cell capacity;
3. maximum net weight must not exceed 85% of load cell capacity;
4. minimum idler spacing 900 mm (~36").

SERIES 20-SC - AUGER (ENDLESS SCREW) APPLICATIONS

SERIES 10-20/SC AUGER SCALES - COMPLETE SYSTEMS (No ATEX, No MID) - AUGER CONVEYOR AND SUPPORT FRAMES ARE NOT INCLUDE

Screw scale weighbridge Series 20/SC, by Thermo Scientific
 Special weighing bridge designed to support n.1 auger conveyor (Customer's supply)
 Thermo Ramsey's factory preassembled, to be installed very easily

Weighing bridge composed by:

- n.1 low torsion pivoted frame made by painted steel, rigid and rugged to be always aligned with the conveyor's frame;
- n°2 galvanized steel pivot shock absorbers;
- n.1 high precision load cell (stainless steel, IP67/68, C3, 3 mt cable) and spherical joint;
- n.1 stay rod to avoid misalignment.

Painting cycle with blu RAL5005 final color (different, on request): SA 2,5 sandblasting (standard ISO 8501-1;1989), finil coat with polyester powder (minimum medium thickness 100 microns), curing to ~200°C;

- n.1 encoder speed pick-up (SPU) model 60-12 (or equivalent);
- n.1 junction box model IT8041PD, polycarbonate, IP54, for cable connections of two (2) load cells and one (1) speed pick-up;
- n.1 microprocessor control unit, model Micro-Tech 9101F (p/n 136033), field mount IP66 (NEMA-4X) enclosure, 98÷230Vac, 50-60 Hz. Comes standard with (4) programmable relè out, (2) optoinsulated digital in, (1) digital static out (FAIL or pulse), (1) Ethernet 100baseT, RJ45 interface, (1) serial out RS232/RS485 multidrop Modbus/RTU, Modbus/TCP, Ethernet/IP, (1) integrated USB, (3) programmable opto-insulated digital in and (4) optional expansion slots, available software languages: English, Spanish, German, Italian, French, Chinese simplified;



PART NO	SHORT DESCRIPTION	ADD INFO	
10-20-SCREW	FRAME (1020/SCREW) + SPU (6012EN) +JB (IT8041PD) + MT 9101F (p/n 136033)	Painted steel	
10-20-SCREWSS	FRAME (1020/SCREWSS) + SPU (6012EN) +JB (IT8041PD) + MT 9101F (p/n 136033)	AISI 304	

SERIES 10-120/1 - BASIC OPTIONS FOR MECHANICAL PART

PART NO	MODEL NO.		
P-VERN/BIL/1020/C5-M	PAINT CYCLE FOR AGGRESSIVE/MARINE AMBIENT - 340 MICRON - C5-M (UNI-EN ISO 12944)		
10-XX-KITVITI-INOX	SET OF SCREWS AND BOLTS USED FOR THE BELT SCALE's FRAME		
10-XX-SET/VITERIE	SET OF SCREWS AND BOLTS USED TO FIX THE BELT SCALE's FRAME TO THE CONVEYOR		
ATEX 22 (consult Factory)	SYSTEM SUITABLE FOR INSTALLATION IN ATEX ZONE 22 (LC, JB, SPU and MT-MET)		
ATEX 21 (consult Factory)	SYSTEM SUITABLE FOR INSTALLATION IN ATEX ZONE 21 (LC, JB, SPU and MT-MET)		
P-SPEC/BIL/1020-1/AISI316L	BELT SCALE's FRAME MADE BY STAINLESS STEEL AISI 316L		

SERIES 10-20/SC - PACKING

Fumigated wooden box for truck transport of n°1 BS 10-20/SC

PART NO	MODEL NO.		
CAS1020-SCREW	WOODEN BOX - STD - BS - 10-20/SCREW		

Note:

1. (no accuracy guaranteed) it depends on the type of auger/screw used (Customer's supply);
2. Install at 2/3 of the lenght of the screw;
3. Screw must have 60÷80% filling degree (by Customer);
4. Max speed of the screw 60 RPM (by Customer).