

## SERIES 14 (3 or 4 idlers stations) - HIGH ACCURACY BELT SCALE

### SERIES 10-14/4 (10-14/3) BELT SCALES - COMPLETE SYSTEMS (No ATEX, No MID)

Ramsey belt scale weighbridge Series 14, by Thermo Scientific  
Considering its high precision, it is the most widely certified electronic belt scale in the World  
Suspension weighing bridge designed to support n.3 or 4 idler stations, Thermo Ramsey's factory preassembled, to be easily installed on conveyors  
Weighing bridge composed by:

- n.2 painted steel fixed frames made by pipes, rigid and rugged to always maintain alignment to the stringers of the conveyor;
- n.1 painted steel frame, floating with no pins or moving parts;
- n.4 high precision load cells (INOX, IP67/68, C3, 3 mt cable) c/w spherical joints;
- n.4 rods c/w spherical joints to keep belt scale's frames aligned.

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 average thickness 100 microns), curing to ~200°C.

- n.1 junction box model IT8041P, polycarbonate, IP54, for cable connections of four (4) load cells;
- 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) optoisolated 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): -20 ÷ +60 (not condensing).



PART NO	SHORT DESCRIPTION	ADD INFO
10-14/4-800	FRAME (10144BW0800) + JB (IT8041P) + SPU (6012C) + JB (IT8041PD) + MT 9101F (p/n 136033)	BW up to 800 mm
10-14/4-1200	FRAME (10144BW1200) + JB (IT8041P) + SPU (6012C) + JB (IT8041PD) + MT 9101F (p/n 136033)	BW 851+1.200 mm
10-14/4-1600	FRAME (10144BW1600) + JB (IT8041P) + SPU (6012C) + JB (IT8041PD) + MT 9101F (p/n 136033)	BW 1.201+1.600 mm
10-14/4-2000	FRAME (10144BW2000) + JB (IT8041P) + SPU (6012C) + JB (IT8041PD) + MT 9101F (p/n 136033)	BW 1.601+2.000 mm

### SERIES 10-14/4 (10-14/3) BELT SCALES - COMPLETE SYSTEMS - LEGAL-FOR-TRADE APPROVED VERSION ACCORDING TO MID Class 0.5, I AND

Ramsey belt scale weighbridge Series 14, by Thermo Scientific - Approved version for Legal-for-Trade applications accoring to MID  
Considering its high precision, it is the most widely certified electronic belt scale in the World  
Suspension weighing bridge designed to support n.3 or 4 idler stations, Thermo Ramsey's factory preassembled, to be easily installed on conveyors  
Weighing bridge composed by:

- n.2 painted steel fixed frames made by pipes, rigid and rugged to always maintain alignment to the stringers of the conveyor;
- n.1 painted steel frame, floating with no pins or moving parts;
- n.4 high precision load cells (INOX, IP67/68, C3, OIML R60, 3 mt cable) c/w spherical joints;
- n.4 rods c/w spherical joints to keep belt scale's frames aligned.

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 average thickness 100 microns), curing to ~200°C.

- n.1 junction box model IT8041P, polycarbonate, IP54, for cable connections of four (4) load cells;
- 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) optoisolated 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): -20 ÷ +60 (not condensing).



PART NO	SHORT DESCRIPTION	ADD INFO
10-14/4-800-WM VEY-R-WEIGH	FRAME (10144BW0800WM) + JB (IT8041P) + SPU (6012C) + JB (IT8041PD) + MT 9201F (p/n 141752)	BW up to 800 mm
10-14/4-1200-WM VEY-R-WEIGH	FRAME (10144BW1200WM) + JB (IT8041P) + SPU (6012C) + JB (IT8041PD) + MT 9201F (p/n 141752)	BW 851+1.200 mm
10-14/4-1600-WM VEY-R-WEIGH	FRAME (10144BW1600WM) + JB (IT8041P) + SPU (6012C) + JB (IT8041PD) + MT 9201F (p/n 141752)	BW 1.201+1.600 mm
10-14/4-2000-WM VEY-R-WEIGH	FRAME (10144BW2000WM) + JB (IT8041P) + SPU (6012C) + JB (IT8041PD) + MT 9201F (p/n 141752)	BW 1.601+2.000 mm

### SERIES 10-14/4 (or 10-14/3) - BASIC OPTIONS FOR MECHANICAL PART

PART NO	MODEL NO.
P-VERN/BIL/1014/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, JB and MT-MET)
ATEX 21 (consult Factory)	SYSTEM SUITABLE FOR INSTALLATION IN ATEX ZONE 21 (LC, JB, SPU, JB and MT-MET)
P-SPEC/BIL/1014-4/AISI304	BELT SCALE'S FRAME MADE BY STAINLESS STEEL AISI 304
P-SPEC/BIL/1014-4/AISI316L	BELT SCALE'S FRAME MADE BY STAINLESS STEEL AISI 316L

### SERIES 10-14/4 (or 10-14/3) - PACKING

Fumigated wooden box for truck transport of n°1 BS 10-14/4 (or 10-14/3)

PART NO	MODEL NO.
CAS1014-4-800	WOODEN BOX - BW < 800 MM (< 31") - 350x135x50(h) CM - GROSS WEIGHT ~320 KG
CAS1014-4-1200	WOODEN BOX - BW 801+1.200 MM (32"+47") - 350x175x50(h) CM - GROSS WEIGHT ~360 KG
CAS1014-4-1600	WOODEN BOX - BW 1.201+1.600 MM (48"+60") - 350x215x50(h) CM - GROSS WEIGHT ~400 KG
CAS1014-4-2000	WOODEN BOX - BW 1.601+2.000 MM (64"+80") - 350x255x50(h) CM - GROSS WEIGHT ~440 KG

#### Belt loading requirements:

1. application range is 12 kg/m (8 lbs/ft) to 1150 kg/m (750 lbs/ft), calculated:  $kg/m = (t/h / 3.6) / m/sec$ ;
2. applications with loads <30 kg/m (25 lbs/ft) or > 600 kg/m (400 lbs/ft) require factory review;
3. minimum net weight must be greater than 15% of load cell capacity;
4. maximum net weight must not exceed 85% of load cell capacity;
5. maximum idler spacing 1.250 mm (~49").

## SERIES 14 (2 idlers stations) - HIGH ACCURACY BELT SCALE

### SERIES 10-14/2 BELT SCALES - COMPLETE SYSTEMS (No ATEX, No MID)

Ramsey belt scale weighbridge Series 14, by Thermo Scientific

Considering its high precision, it is the most widely certified electronic belt scale in the World

Suspension weighing bridge designed to support n.2 idler stations, Thermo Ramsey's factory preassembled, to be easily installed on conveyors

Weighing bridge composed by:

- n.2 painted steel fixed frames made by pipes, rigid and rugged to always maintain alignment to the stringers of the conveyor;
- n.1 painted steel frame, floating with no pins or moving parts;
- n.4 high precision load cells (INOX, IP67/68, C3, 3 mt cable) c/w spherical joints;
- n.4 rods c/w spherical joints to keep belt scale's frames aligned.

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 avarage thickness 100 microns), curing to ~200°C;

- n.1 junction box model IT8041P, polycarbonate, IP54, for cable connections of four (4) load cells;
- 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): -20 ÷ +60 (not condensing).



PART NO	SHORT DESCRIPTION	ADD INFO
10-14/2-800	FRAME (10142BW0800) + JB (IT8041P) + SPU (6012C) + JB (IT8041PD) + MT 9101F (p/n 136033)	BW up to 800 mm
10-14/2-1200	FRAME (10142BW1200) + JB (IT8041P) + SPU (6012C) + JB (IT8041PD) + MT 9101F (p/n 136033)	BW 851+1.200 mm
10-14/2-1600	FRAME (10142BW1600) + JB (IT8041P) + SPU (6012C) + JB (IT8041PD) + MT 9101F (p/n 136033)	BW 1.201+1.600 mm
10-14/2-2000	FRAME (10142BW2000) + JB (IT8041P) + SPU (6012C) + JB (IT8041PD) + MT 9101F (p/n 136033)	BW 1.601+2.000 mm

### SERIES 10-14/2 BELT SCALES - COMPLETE SYSTEMS - LEGAL-FOR-TRADE APPROVED VERSION ACCORDING TO MID Class 0.5, I AND II

Belt scale weighbridge Series 14, by Thermo Scientific - Approved version for Legal-for-Trade applications accoring to MID

Considering its high precision, it is the most widely certified electronic belt scale in the World

Suspension weighing bridge designed to support n.2 idler stations, Thermo Ramsey's factory preassembled, to be easily installed on conveyors

Weighing bridge composed by:

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- n.4 rods c/w spherical joints to keep belt scale's frames aligned.

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- 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): -20 ÷ +60 (not condensing).



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10-14/2-1200-WM VEY-R-WEIGH	FRAME (10142BW1200WM) + JB (IT8041P) + SPU (6012C) + JB (IT8041PD) + MT 9201F (p/n 141752)	BW 851+1.200 mm
10-14/2-1600-WM VEY-R-WEIGH	FRAME (10142BW1600WM) + JB (IT8041P) + SPU (6012C) + JB (IT8041PD) + MT 9201F (p/n 141752)	BW 1.201+1.600 mm
10-14/2-2000-WM VEY-R-WEIGH	FRAME (10142BW2000WM) + JB (IT8041P) + SPU (6012C) + JB (IT8041PD) + MT 9201F (p/n 141752)	BW 1.601+2.000 mm

### SERIES 10-14/4 (or 10-14/3) - BASIC OPTIONS FOR MECHANICAL PART

PART NO	MODEL NO.
P-VERN/BIL/1014/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
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ATEX 22 (consult Factory)	SYSTEM SUITABLE FOR INSTALLATION IN ATEX ZONE 22 (LC, JB, SPU, JB and MT-MET)
ATEX 21 (consult Factory)	SYSTEM SUITABLE FOR INSTALLATION IN ATEX ZONE 21 (LC, JB, SPU, JB and MT-MET)
P-SPEC/BIL/1014-2/AISI304	BELT SCALE's FRAME MADE BY STAINLESS STEEL AISI 304
P-SPEC/BIL/1014-2/AISI316L	BELT SCALE's FRAME MADE BY STAINLESS STEEL AISI 316L

### SERIES 10-14/2 - PACKING

Fumigated wooden box for truck transport of n°1 BS 10-14/2

PART NO	MODEL NO.
CAS1014-2-800	WOODEN BOX - STD - BW < 800 MM (< 31") - BS - 10-14-2 - 250x135x50(h) CM - GROSS WEIGHT ~260 KG
CAS1014-2-1200	WOODEN BOX - STD - BW 801+1.200 MM (32"+47") - BS - 10-14-2 - 250x175x50(h) CM - GROSS WEIGHT ~300
CAS1014-2-1600	WOODEN BOX - STD - BW 1.201+1.600 MM (48"+60") - BS - 10-14-2 - 250x215x50(h) CM - GROSS WEIGHT ~340
CAS1014-2-2000	WOODEN BOX - STD - BW 1.601+2.000 MM (64"+80") - BS - 10-14-2 - 250x255x50(h) CM - GROSS WEIGHT ~380

### Belt loading requirements:

1. application range is 12 kg/m (8 lbs/ft) to 1150 kg/m (750 lbs/ft), calculated:  $kg/m = (t/h / 3,6) / m/sec$ ;
2. applications with loads <30 kg/m (25 lbs/ft) or > 600 kg/m (400 lbs/ft) require factory review;
3. minimum net weight must be greater than 15% of load cell capacity;
4. maximum net weight must not exceed 85% of load cell capacity;
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