

IT8000E *BELT*

Weighing Terminal For Beltweighers



The industrial weighing terminal **IT8000E *BELT*** captures continuously the quantity of bulk material conveyed over a beltweigher for both, batching and receiving operations.

IT8000E *BELT* enables interfacing to a beltweigher structure with one or several analog force transducers. The weighing terminal is suitable for harsh environment weighing locations, it is incorporated in a stainless steel desk-top / wall-mount or panel-mount housing with high ingress protection. The A/D converter provides fast update rates together with excellent weighing performance and high immunity against electromagnetic interference.

IT8000E *BELT* operates as stand alone unit or in combination with a PLC or a SCADA system. It can be configured for the simple capturing of quantities, but also for complex batching applications with preset target and adjustable preact correction.

Connection of pulse wheel

IT8000E *BELT* provides a configurable interface for a pulse wheel to capture the belt speed. Sensors with PNP, NPN or NAMUR output can be connected. As option, operation without sensor is also possible.

Counters

IT8000E *BELT* has three counters, e.g. for captured quantity, shift total and total quantity. Two counters can be reset by the operator, the total quantity only by service.

PLC interface

IT8000E *BELT* can be connected to a PLC via the optional analog output, Profibus DP, Profinet or with Modbus TCP over Ethernet.

Data transmission

Configurable data output for simple interfacing, transmission in continuous mode or on request.

Parallel I/Os

Up to four freely configurable inputs and outputs, expandable with external I/O module.

Count pulse

For the connection of external counters.

Display and keyboard

1/4-VGA color TFT display. Main display with current flow rate (kg/h or t/h) and process status. Additional display switchable between conveyed quantity, flow rate, total quantity, belt load and belt speed. Large-character status display with conveyed quantity and total quantity. Graphic display of belt load and belt speed and operator prompting. In batching mode also display of target and remaining quantity. Alphanumeric sealed membrane keyboard with function and scale keys.

Weighing electronics

Integrated signal amplifier for connection to force transducer with one or more analog strain gauge loadcells (overall impedance 87.5 - 4500 Ohm). Internal resolution 524,000d.

Calibration

Calibration of belt scale with test weights, entry of loadcell and sensor data or through comparison of conveyed quantity on reference scale.

Configuration

IT8000E BELT is a modular system. A complete unit consists of the basic unit IT8000E, an A/D converter, interfaces, the speed sensor and the application program **BELT E**.

Interfaces

- Ethernet interface (option WLAN): Integrated Ethernet interface with selectable IP address, for data transmission and/or remote diagnosis.
- Serial interface (option) for connection to supervisory control system or remote display, RS232, 20mA CL (passive) or RS485. Format / protocol selectable. Transmission of conveyed quantity and/or flow rate. Alternatively, transmission also on request with additional commands to reset counters or set the scale to zero.
- Freely configurable digital I/Os with internal PIM module, optoisolated 24VDC, 100mA, external relay module, Profibus DP, Profinet or over Modbus TCP:
 - Outputs configurable for: Ready, Running, Zero setting, Pre-signal, Done, Quantity pulse, Error;
 - Inputs configurable for: Start, Stop, Release, Set zero, Abort, Reset, Print release.

Analog output (option)

To output the current flow rate or belt load; resolution 15bit, 32000 divisions; 0-20mA, 4-20mA, 0-10V or 2-10V.

Pulse wheel input

Single- or dual-channel mode, to capture the belt speed, 5 – 10VDC, max. 10000 pulses/sec.

Complete speed sensors consisting of wheel, suspension and encoder can be supplied on request.

Electrical connections

110(-15%) – 240 (-10%) VAC; 50/60Hz; option: 12–30VDC; power consumption max. 20VA.

Operating temperature

-10°C to +40°C, max. 95% relative humidity, non-condensing.

Accessories

Remote display, relay module, and others (ask for details).

Ex2/22 version:

for installation in Ex zones 2 and 22.

Construction:

Desk/wall version



- Stainless steel housing, IP69K
- For desk-top or wall-mount installation or with optional column for floor mounting
- Dimension WxHxD: 330x239x134mm

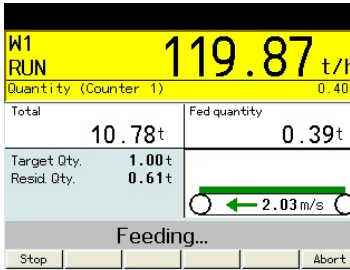
Panel-mount version



- Stainless steel housing, IP65
- Panel-mount installation
- Dimension WxHxD: 285x224x69mm
- Cut-out in panel: 268x207mm

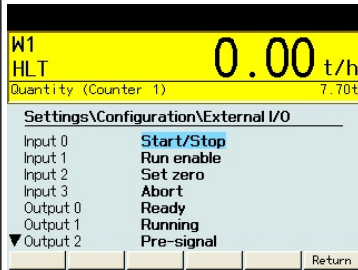
Display / operation:

Batching mode



Display of flow rate (large characters) and quantities. Graphic display of operational and process status.

Entries / configuration



User-friendly input menus. Comprehensive configuration options, eg for external I/Os.

Directives: 2009/23/EG, 2004/108/EG, 2006/95/EG, 2004/22/EG

Standard: EN 45501, OIML R76-1, EN 61000-6-2, EN 61000-6-3, NAMUR NE21, EN 60950



NTEP approval as indicating element



ETL certified in compliance with UL 60950-1 and CSA C22.2 No. 60950-1



EMI compliance with FCC Part 15