

Weighbridge Indicator for Digital and Analog Load Cells

FEATURES

- Supports digital and analog load cells
- Easy calibration using the digital load cells
- Easy digital corner compensation
- Elaborated diagnostics of digital weighbridge load cells
- Easy service and maintenance
- Large, 16-character LCD display
- 27-key alphanumeric and functions keyboard
- Two serial ports with printing and networking
- Analog output for PLC interface (optional)
- Two opto-isolated weight setpoints
- Alibi (Flash) memory for transaction records
- Real-time clock
- Stainless steel enclosure (IP65), aluminum enclosure (IP40)
- Weighing and counting operating modes
- OIML R-76 approved to 10,000d
- Dual scale operation (one digital, one analog)
- 4 programmable ticket formats

APPLICATIONS

- Weighbridges
- Inventory control
- Industrial weighing systems
- Bench, floor, and counting scales

DESCRIPTION

The VT300D is a powerful alphanumeric terminal, designed for digital and analog weighbridges, inventory control, and other demanding weighing applications.



The extended keyboard includes alphanumeric and functional keys for easy data entry and setup.

A 16-character dot-matrix LCD display supports the required user interface in complex industrial applications.

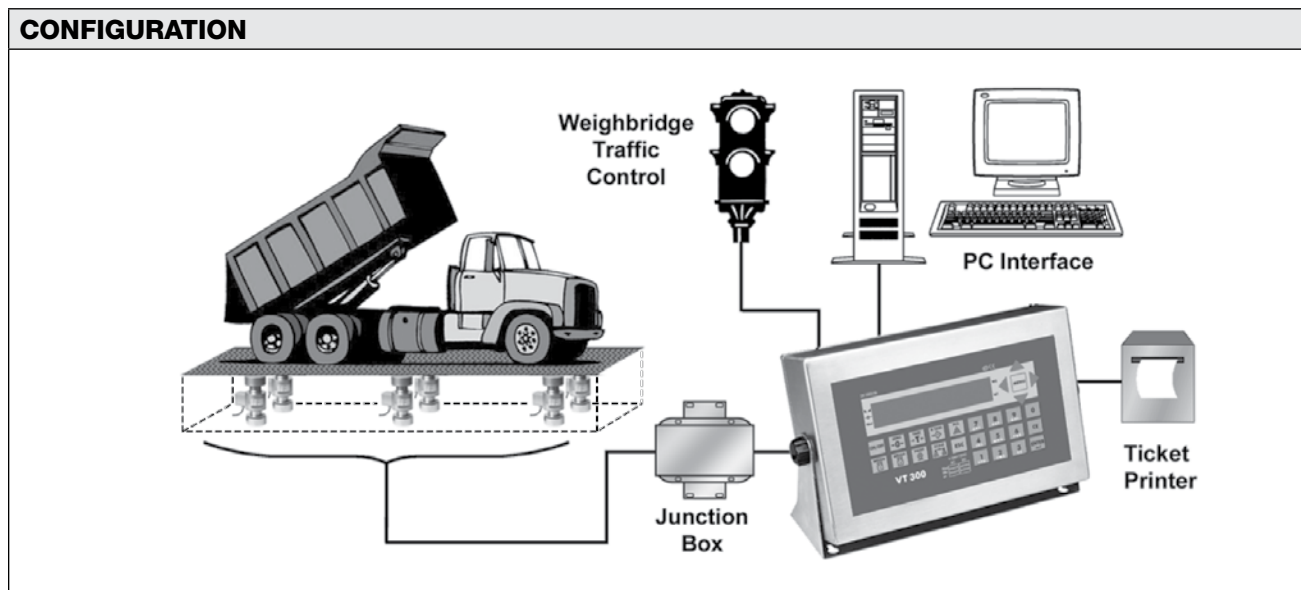
Using a weighing system that includes the VT 300D together with VPG Transducers digital load cells (DSC, SCC, SBC and MDBD) enables very easy installation, calibration, corner compensation, maintenance and diagnostics of the system.

VT 300D software manages various transactions allowing choices of customer, material type, or truck identification. Records of all activities are maintained in memory and made available for computer reporting. Printable tickets and reports are easily formatted and edited.

The VT 300D can support one digital load cells weighbridge and one analog load cell weighbridge at same time.

Enclosure selections include tilted, wall-mount, and desktop.

CONFIGURATION



Weighbridge Indicator for Digital and Analog Load Cells

SPECIFICATIONS

PERFORMANCE

Analog Load Cell Interface Performance

Resolution

Selectable up to 990,000 dd

Conversion Speed

3–70 samples per second (selectable)

Sensitivity

0.4 $\mu\text{V}/\text{Vsi}$ for approved scales,
0.1 $\mu\text{V}/\text{Vsi}$ for non-approved scales

Full Scale Range

–0.25 to 1.75 mV/V or –0.25 to 3.75 mV/V

Linearity

0.002% of full scale

Long-Term Stability

0.005% of full scale per year

Excitation

+5V alternating polarity or +5 VDC (selectable), with sense (6 wires)

Number of cells

Up to 10; 350 Ω load cells

Filter

FIR automatically adjusted to conversion speed, rolling average.

Offset Drift

≤ 2 ppm/ $^{\circ}\text{C}$

Span Drift

≤ 2 ppm/ $^{\circ}\text{C}$

A/D Converter Type

Sigma-Delta, ratiometric, 550,000 internal counts

Digital Load Cell Interface Performance

Resolution

Selectable up to 990,000 dd

Update Rate

25 updates per second

Supply to Load Cell

14–18 VDC; 1.5A (Standard 15V)

Number of Cells

Up to 12

Compatible Load Cells

DSC, SCC, SBC, MDBD

General Performance

Count By

x1, x2, x5, x10, x50

Decimal Point

Between any digits of the weight display

Calibration Methods

Dead load and span, or data sheets calibration, via the mV/V output values of the load cell. Digital corner correction. Digital default calibration.

Weighing Functions

Automatic zero tracking, no motion detection, auto-zero on power-up, zero tare, preset tare, net mode, multiple test functions.

Memory Allocation

Calibration data EEPROM, flash tally-roll (Alibi) memory capable of 10,000 weight registrations, 250 records database (trucks). Stores the digital load cell performance and calibration data.

Piece Counting Mode**Real-Time Clock**

ENVIRONMENTAL

Operating Temperature

–10 $^{\circ}\text{C}$ to +40 $^{\circ}\text{C}$ [14 $^{\circ}\text{F}$ to 104 $^{\circ}\text{F}$]

Storage Temperature

–10 $^{\circ}\text{C}$ to +70 $^{\circ}\text{C}$ [–4 $^{\circ}\text{F}$ to 158 $^{\circ}\text{F}$]

Relative Humidity

40–90% RH, non-condensing

DISPLAY AND KEYBOARD

Display

16-character, LCD, backlit

Digital Height

14.5 mm

Status Enunciators

No motion, zero, tare in use, net, scale in operation (#1 or #2 or sum # 1+2, if second scale connected), piece counting mode

Weight Digits

4, 5 or 6 (setup selectable)

Keyboard

Pseudo-alphanumeric, 27 keys, with tactile feedback

ELECTRICAL

Voltage

85–265 VAC

Current

500 mA

ISOLATED ANALOG OUTPUT (OPTIONAL)

Resolution

16 bit DAC

Voltage Output

0.02–10V

Current

0–20 mA or 4–20 mA

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Linearity

0.01% of full scale

Thermal Stability

50 ppm /°C typical

INPUTS AND OUTPUTS

(x1) Logic Input

9–24 VDC, negative common, opto-isolated to 2.5 kV

(x2) Logic Output

24 VDC \pm 10%, positive common, max current
100 mA, opto-isolated to 2.5 kV.

SERIAL COMMUNICATION

Serial Output #1

RS-232, non-programmable

Baud Rate

2400 baud, full duplex

Applications

Printer output, weight output

Serial Output #2

RS-485 setup programmable

Baud Rate

2400–57800 baud, half duplex

Applications

EDP output, master-slave protocols, continuous
output, remote printer and digital load cell
communication.

ENCLOSURE

Stainless Steel Enclosure

Dimensions

252 x 152 x 62 mm L x H x D

Mounting

Wall and tilt mount

Protection

IP65

Wiring Connections

Cable glands

Aluminum Enclosure

Dimensions

194 x 100 x 107 mm L x H x D

Mounting

Desktop

Protection

IP40

Wiring Connections

D-sub connectors

APPROVALS (ACCURACY CLASS III)

OIML R-76

10,000d single or dual interval
EU-type approval no. DK0199.62

VPG Transducers is continually seeking to improve product quality and performance. Specifications may change accordingly.

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