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 (optional)
- Weighing and counting operating modes
- OIML R-76 approved to 10,000d
- Dual scale operation (one digital, one analog)
- 4 programmable ticket formats

DESCRIPTION

The VT 300D 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 VT300D together with Vishay digital load cells (DSC, SCC, SBC & 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.

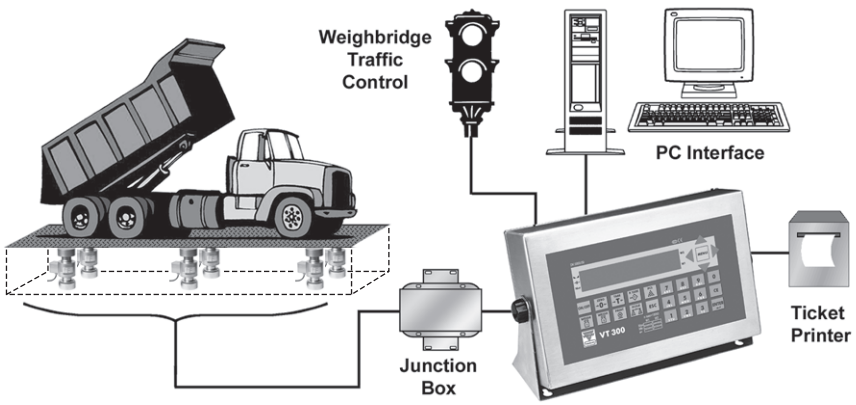
The VT300D can support one digital load cells weighbridge and one analog load cell weighbridge at same time.

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

APPLICATIONS

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

CONFIGURATION



SPECIFICATIONS

PERFORMANCE

Analog Load Cell Interface Performance:	
Resolution:	selectable up to 990,000 dd
Conversion Speed:	3 - 70 samples per second (selectable)
Sensitivity:	0.4μV/Vsi for approved scales, 0.1μV/Vsi for non-approved scales.
Full Scale Range:	-0.25 to 1.75mV/V or -0.25 to 3.75mV/V
Linearity:	0.002% of full scale
Long Term Stability:	0.005% of full scale per year
Excitation:	+5V alternating polarity or +5VDC (selectable), with sense (6 wires)
Number of Cells:	Up to 10, 350 ohm load cells
Filter:	FIR automatically adjusted to conversion speed, rolling average.
Offset Drift:	≤2ppm/°C
Span Drift:	≤2ppm/°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 - 18Vdc; 1.5A
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 Temp:	-10°C to +40°C [14°F to 104°F]
Storage Temp:	-10°C to +70°C [-4°F to 158°F]
Relative Humidity:	40-90% RH, non-condensing

DISPLAY AND KEYBOARD

Display:	16 character, LCD, backlit
Digital Height:	14.5mm
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 - 265VAC
Current:	500mA

ISOLATED ANALOG OUTPUT (OPTIONAL)

Resolution:	16 bit DAC
Voltage Output:	0.02-10V
Current:	0-20mA or 4-20mA
Linearity:	0.01% of full scale
Thermal Stability:	50ppm /°C typical

INPUTS & OUTPUTS

(x1) Logic Input:	9-24VDC, positive common, opto-isolated to 2.5KV.
(x2) Logic Output:	24VDC±10%, positive common, max current 100mA, opto-isolated to 2.5KV.

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:	252x152x62mm LxHxD
Mounting:	wall and tilt mount
Protection:	IP65
Wiring Connections:	cable glands
Aluminum Enclosure:	
Dimensions:	194x100x107mm LxHxD
Mounting:	wall and tilt mount
Protection:	IP40
Wiring Connections:	cable glands

APPROVALS (ACCURACY CLASS III)

OIML R-76:	10,000d single or dual interval EU-type approval no. DK0199.62

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

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