

## Weight Indicator

### FEATURES

- Large 6 digit LED (VT 200) or LCD (VT 220) display
- Built-in weighing and counting modes
- Two opto-isolated setpoints
- Alibi (Flash) memory retains last 10,000 transactions
- Two serial ports for printing and networking (one standard)
- Stainless steel enclosure (IP65), aluminum enclosure (IP40)
- Programmable ticket format
- High sample rate—up to 70 conversions per second
- OIML R-76 and NTEP approved to 10000d
- Battery operation (optional with aluminum enclosure)
- **Optional**
  - Aluminum enclosure
  - Stainless steel enclosure
  - Dual scale operation
  - UL/TUV/UK power adapter
  - LED/LCD display
  - Analog input
  - Analog output
  - Second RS-232 port
  - RS-485 port
  - Real-time clock
  - Battery (for aluminum only)



### APPLICATIONS

- Bench and floor scales
- Counting scales
- Inventory control
- Various industrial weighing systems

### DESCRIPTION

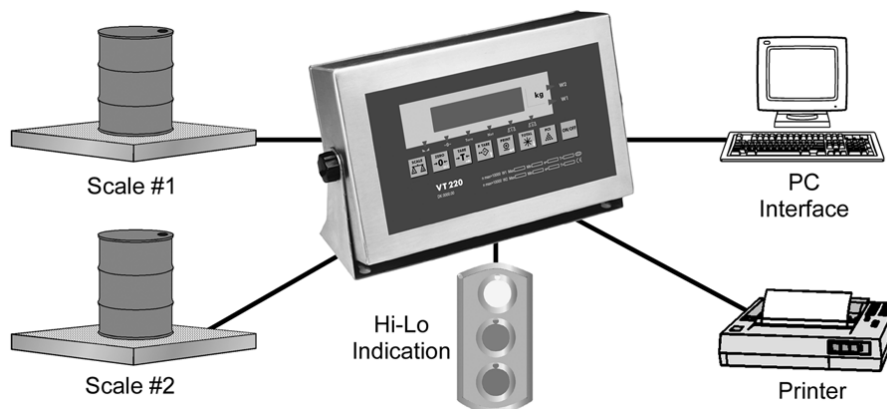
VT 200 / VT 220 units are versatile, general purpose weight indicators, with a wide range of industrial and commercial applications.

The eight key panel enables easy operation, calibration, and setup of the instrument. An integral printer interface allows easy, programmable, ticket formatting. Automatic date and time storage with the real-time clock option clearly documents all printout records.

The VT 220 with the LCD display includes internal rechargeable battery option for stand-alone autonomous operation.

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

### CONFIGURATION



### Weight Indicator

#### SPECIFICATIONS

##### PERFORMANCE

**Resolution**

Selectable up to 990000 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 [–1.25 mV to 8.75 mV] or  
–0.25 to 3.75 mV/V [–1.25 mV to 18.75 mV]

**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 $\Omega$  load cells

**Filter**

FIR automatically adjusted to conversion speed,  
rolling average

**Offset Drift**

$\leq 2$  ppm/ $^{\circ}\text{C}$

**Span Drift**

$\leq 2$  ppm/ $^{\circ}\text{C}$

**A/D Converter Type**

Sigma-Delta, ratiometric

**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. Calibration  
of two analog inputs (optional) with individual  
coefficients.

**Weighing Functions**

Automatic zero tracking, 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

**Piece Counting Mode****Real-Time Clock (Optional)**

##### 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**

6 digit, 7 segment, LED or LCD

**Digit Height**

20 mm (VT 200), 16 mm (VT 220)

**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**

8 key membrane keyboard, with tactile feedback

##### ELECTRICAL

**Voltage**

85–265 VAC

**Current**

500 mA

**Battery Operation (Optional)**

Internal rechargeable battery (VT 220)  
Aluminum version only

##### ISOLATED ANALOG OUTPUT (OPTIONAL)

**Resolution**

16 bit DAC

**Voltage Output**

0.02–10V

**Current**

0–20 mA or 4–20 mA

**Linearity**

0.002% of full scale

**Offset Drift**

$\leq 2$  ppm/ $^{\circ}\text{C}$

##### INPUT 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**

Continuous, print (on demand), alibi print

Weight Indicator

**Serial Output #2 (Optional)**

RS-232 or RS-485 setup programmable

**Baud Rate**

2400–57800 baud, half duplex

**Applications**

EDP output, master-slave protocols, continuous output, remote printer

**ENCLOSURES**

**Stainless Steel Enclosure**

**Dimensions**

252 x 152 x 62 mm L x H x D  
[10 x 6 x 2.5 in. L x H x D]

**Mounting**

Wall and tilt mount

**Protection**

IP65

**Wiring Connections**

Cable glands

**Aluminium Enclosure**

**Dimensions**

194 x 100 x 107 mm L x H x D  
[7.64 x 3.94 x 4.21 in. L x H x D]

**Mounting**

Desktop

**Protection**

IP40

**Wiring Connections**

D-sub connectors

**APPROVALS (ACCURACY CLASS III / IIIL)**

**OIML R-76**

10000d single or dual interval  
EU-type approval no. DK0199.62

**NTEP**

10000d single or dual interval  
NTEP CC#.....

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

## Disclaimer

ALL PRODUCTS, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Vishay Precision Group, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay Precision Group"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

The product specifications do not expand or otherwise modify Vishay Precision Group's terms and conditions of purchase, including but not limited to, the warranty expressed therein.

Vishay Precision Group makes no warranty, representation or guarantee other than as set forth in the terms and conditions of purchase. **To the maximum extent permitted by applicable law, Vishay Precision Group disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.**

Information provided in datasheets and/or specifications may vary from actual results in different applications and performance may vary over time. Statements regarding the suitability of products for certain types of applications are based on Vishay Precision Group's knowledge of typical requirements that are often placed on Vishay Precision Group products. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application.

No license, express, implied, or otherwise, to any intellectual property rights is granted by this document, or by any conduct of Vishay Precision Group.

The products shown herein are not designed for use in life-saving or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay Precision Group products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay Precision Group for any damages arising or resulting from such use or sale. Please contact authorized Vishay Precision Group personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.