

# 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 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

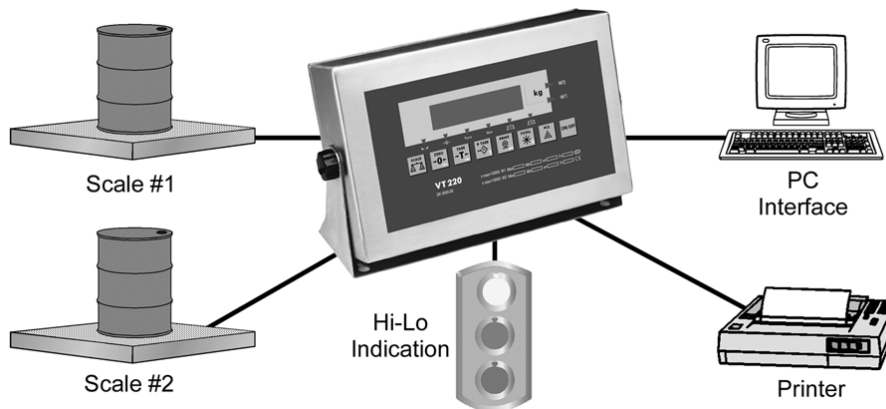
VT 200 / VT 220 units are versatile, general purpose weight indicators, with a wide range of industrial and commercial applications.

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

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