

## Weight Controller/Indicator

### FEATURES

- Inventory and batching control terminal
- High sample rate, up to 70 samples per second
- Up to two serial ports with printing and networking (one standard)
- Two opto-isolated weight setpoints
- Large 6 digit LED display
- Alibi (Flash) memory for last 10,000 transactions
- OIML R-76 approved to 10000d
- Panel mount IP40 enclosure
- Input power 24 VDC
- **Optional Features**
  - Analog output
  - IP54 front panel cover
  - RS-485 port
  - Second RS-232 port

### APPLICATIONS

- Process weighing
- Inventory control



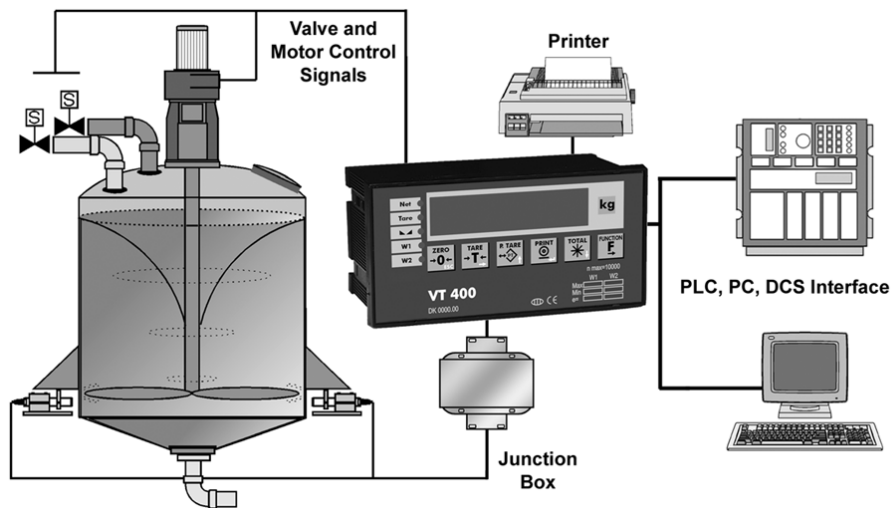
### DESCRIPTION

VT 400 Weight Controllers provide weighing and control functions for industrial process systems.

Two opto-isolated control outputs, a choice of up to two serial interfaces (RS-232 and RS-485) and an analog output (optional) allow full communication with higher level PCs or PLCs. Up to 30 units can be interconnected through the RS-485 network.

The standard VT 400 panel mount enclosure is rated IP40. However, it can be upgraded with an IP54 front panel cover (optional).

### CONFIGURATION



### Weight Controller/Indicator

#### SPECIFICATIONS

##### 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 [–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**

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

**Span Drift**

< 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

**Weighing Functions**

Automatic zero tracking, motion detection, auto-zero on power-up, zero tare, multiple test functions

**Memory Allocation**

Calibration data EEPROM (32 kb), Flash tally-roll (Alibi) memory capable of 10,000 weight registrations (64 kb)

##### 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

**Digital Height**

14 mm [0.55 in.]

**Status Enunciators**

No motion, zero, tare in use, net, setpoint in operation

**Weight Digits**

4, 5 or 6 (setup selectable)

**Keyboard**

6 membrane keys, with tactile feedback

##### ELECTRICAL

**Voltage**

24 VDC

**Current**

500 mA

##### ISOLATED ANALOG OUTPUT (OPTIONAL)

**Resolution**

16 bit DAC

**Voltage Output**

0.02–10V

**Current**

0–20 mA or 4–20 mA

**Linearity**

0.01% (or better) of full scale

**Thermal Stability**

50 ppm/ $^{\circ}\text{C}$  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, programmable as weight setpoints

## Weight Controller/Indicator

**SERIAL COMMUNICATION****Serial Output #1**

RS-232, non-programmable

**Baud Rate**

2400 baud, full duplex

**Applications**

Continuous, print (on demand), alibi print

**Serial Output #2**

RS-232 or RS-485 setup programmable

**Baud Rate**

2400–57800 baud, half duplex

**Applications**

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

**ENCLOSURE—HEAVY DUTY PLASTIC****Dimensions**144 x 72 x 132 mm L x H x D  
[5.7 x 2.8 x 5 in. L x H x D]**Mounting**

Panel mount

**Protection**

IP40 standard, optional front panel cover—IP54

**Wiring Connections**

Mini D-type connectors

**APPROVALS (ACCURACY CLASS III/IIIL)****OIML R-76**10000d 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.



## 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, "VPG"), 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 VPG's terms and conditions of purchase, including but not limited to, the warranty expressed therein.

VPG 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, VPG 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 VPG's knowledge of typical requirements that are often placed on VPG 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. You should ensure you have the current version of the relevant information by contacting VPG prior to performing installation or use of the product, such as on our website at [vpgsensors.com](http://vpgsensors.com).

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

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

Copyright Vishay Precision Group, Inc., 2014. All rights reserved.