

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)
- Analog output (optional)
- Two opto-isolated weight setpoints
- Large 6 digit LED display
- Alibi (Flash) memory for last 10,000 transactions
- OIML R-76 and NTEP approved to 10,000d
- Panel mount IP40 enclosure
- Input power 24VDC
- IP54 front panel cover (optional)

DESCRIPTION

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

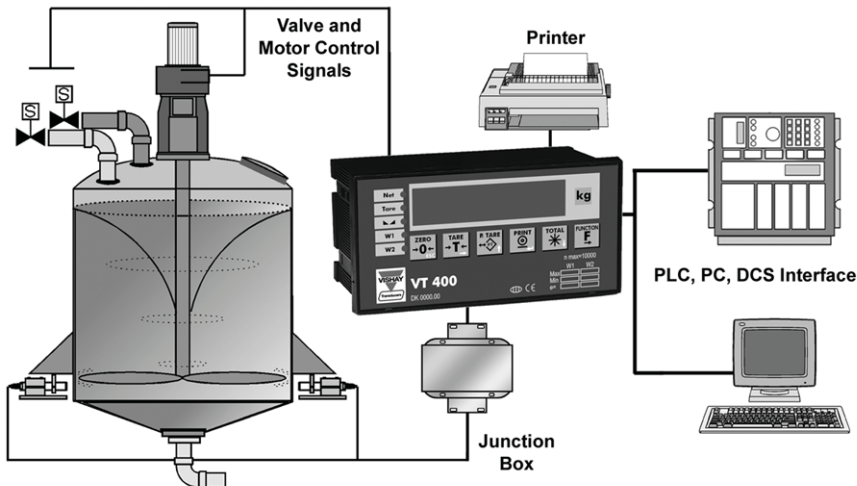
Two opto-isolated control outputs, a choice of up to two serial interfaces (RS-232 and RS-485) and an analog output (optional) allow full communication with higher level PCs or PLCs. Up to 30 units can be interconnected through the RS-485 network.

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

APPLICATIONS

- Process weighing
- Inventory control

CONFIGURATION



ORDERING INFORMATION

Item Number	Description*
VT400-2100177	RS-232, 24VDC powered
VT400-2100941	RS-232, analog output (0-20mA, 4-20mA, or 0-10V), 24VDC powered
VT400-2100942	RS-232 and RS-485, 24VDC powered
VT400-2100943	RS-232 and RS-485 ports, analog output (0-20mA, 4-20mA, or 0-10V), 24VDC powered
VT400-2100130	RS-232, external 230VAC/9VDC powered
VT400-2100132	RS-232 and RS-485, analog output (0-20mA, 4-20mA, or 0-10V), external 230 VAC/9VDC powered

*all models feature an LED display and plastic panel mount housing



SPECIFICATIONS

PERFORMANCE

Resolution: selectable up to 99,000 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 2mV/V [-1.25mV to -10mV] or
 -0.25 to 4mV/V [-1.25mV to -20mV]
 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
 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, multiple test functions.
 Memory Allocation: calibration data EEPROM (32kb), Flash
 tally-roll (Alibi) memory capable of
 10,000 weight registrations (64kb)

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: 6 digit, 7 segment, LED
 Digital Height: 14mm [0.55in.]
 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: 24VDC
 Current: 500mA

ISOLATED ANALOG OUTPUT (OPTIONAL)

Resolution: 16 bit DAC
 Voltage Output: 0.02-10V
 Current: 0-20mA or 4-20mA
 Linearity: 0.01% (or better) 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,
 programmable as weight setpoints

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 enclosure:
 Dimensions: 144x72x132mm LxHxD
 [5.7x2.8x5in. LxHxD]
 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: 10,000d single or dual interval
 EU-type approval no. DK0199.62
 NTEP: 10,000d single interval
 NTEP CC#

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

VISHAY TRANSDUCERS (VT) SALES OFFICES

VT Americas
 City of Industry, CA
 PH: +1-626-858-8899
 FAX: +1-626-332-3418
 vt.us@vishaymg.com

VT Netherlands
 Breda
 PH: +31-76-548-0700
 FAX: +31-76-541-2854
 vt.nl@vishaymg.com

VMG UK
 Basingstoke
 PH: +44-125-646-2131
 FAX: +44-125-647-1441
 vt.uk@vishaymg.com

VMG Israel
 Netanya
 PH: +972-9-863-8888
 FAX: +972-9-863-8800
 vt.il@vishaymg.com

VMG Germany
 Heilbronn
 PH: +49-7131-3901-260
 FAX: +49-7131-3901-2666
 vt.de@vishaymg.com

VT China
 Tianjin
 PH: +86-22-2835-3503
 FAX: +86-22-2835-7261
 vt.prc@vishaymg.com

VMG France
 Chartres
 PH: +33-2-37-33-31-20
 FAX: +33-2-37-33-31-29
 vt.fr@vishaymg.com

VT Taiwan*
 Taipei
 PH: +886-2-2696-0168
 FAX: +886-2-2696-4965
 vt.roc@vishaymg.com
 *Asia except China



Notice

Specifications of the products displayed herein are subject to change without notice. Vishay Intertechnology, Inc., or anyone on its behalf, assumes no responsibility or liability for any errors or inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document. Except as provided in Vishay's terms and conditions of sale for such products, Vishay assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of Vishay products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Vishay for any damages resulting from such improper use or sale.