Model VT 400

Revere

VPG force sensors
Celtron • Revere • Sensortronics • Tedea-Huntleigh

Weight Controller/Indicator

FEATURES

- Inventory and batching control terminal
- High sample rate, up to 228 samples per second
- 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
  - USB slave port

APPLICATIONS

- Process weighing
- Inventory control

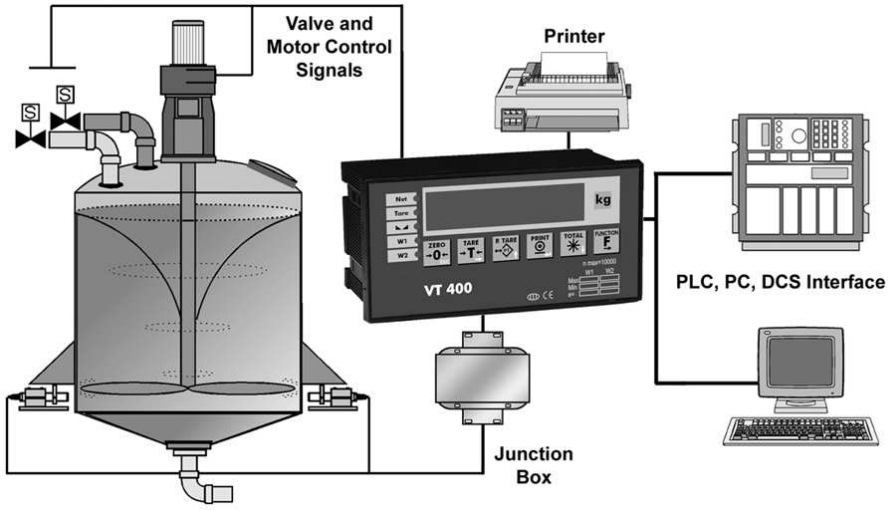
DESCRIPTION

The Model VT 400 Weight Controller provides 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 Model VT 400 panel mount enclosure is rated IP40.However, it can be upgraded with an optional IP54 front panel cover.

CONFIGURATION



Weight Controller/Indicator

SPECIFICATIONS

PERFORMANCE

Resolution
Selectable up to 990,000 dd

Conversion Speed
3–228 samples per second (selectable)

Sensitivity
0.4 µV/Vsi for approved scales
0.1 µV/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, 350Ω load cells

Filter
FIR automatically adjusted to conversion speed, rolling average

Offset Drift
< 2 ppm/°C

Span Drift
< 2 ppm/°C

A/D Converter Type
Sigma-Delta, ratiometric

Count By
x1, x2, x5, x10, x50, x100, x200

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°C to +40°C (14°F to 104°F)

Storage Temperature
–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
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/°C typical

INPUTS AND OUTPUTS

(x1) Logic Input
9-24 VDC, negative common, opto-isolated to 2.5 kV

(x2) Logic Output
24 VDC ±10%, positive common, max current 100 mA, opto-isolated to 2.5 kV, programmable as weight setpoints

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SERIAL COMMUNICATION

Serial Output #1
RS-232C Full duplex, programmable

Baud Rate
1200-9600 baud, full duplex

Applications
Continuous, print (on demand), alibi print

Serial Output #2
RS-232, RS-485 or slave USB setup programmable

Modbus ASCII

Baud Rate
2400-115200 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. 0200-NAWI-03996

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

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