

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



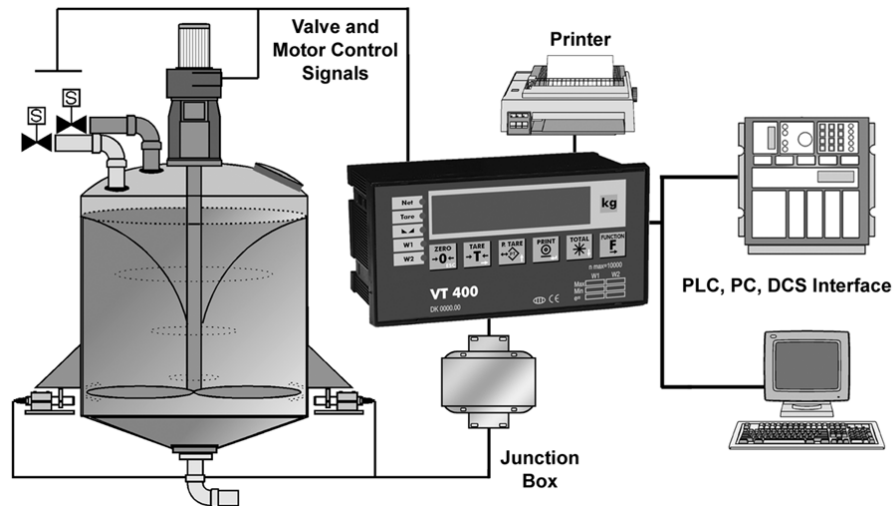
DESCRIPTION

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 Ω 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

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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

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