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

Weight Indicator

FEATURES

- High performance and long-term reliability
- Assembly “snap-on” DIN rail (certified to EN50022 standards)
- Able to interface with intrinsically safe barriers for use in hazardous areas

OPTIONS

- Analog option available
- RS485 full duplex output available

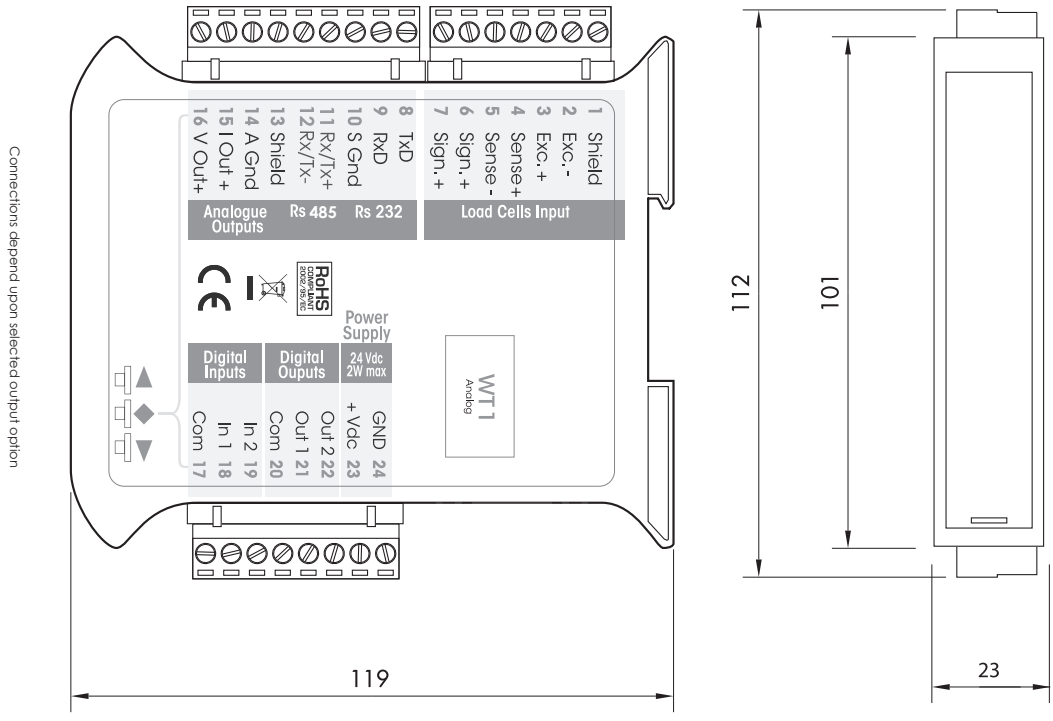
APPLICATIONS

- Various industrial systems

DESCRIPTION

The WT1 provides accurate readings at an excellent price. When connected to a system of 1–4 load cells, the WT1 will convert output signals into stable, accurate weight values. This model comes with two logic outputs and two logic inputs as standard. The WT1 can be fitted with either an RS232C half-duplex or RS485 full duplex serial door; both serial doors can be loaded with ASCII or Modbus RTU protocols to enable communication with a PC or PLC.

OUTLINE DIMENSIONS



Technical contact: vpgfs.americas@vpgsensors.com,
vpgfs.asia@vpgsensors.com, vpgfs.emea@vpgsensors.com
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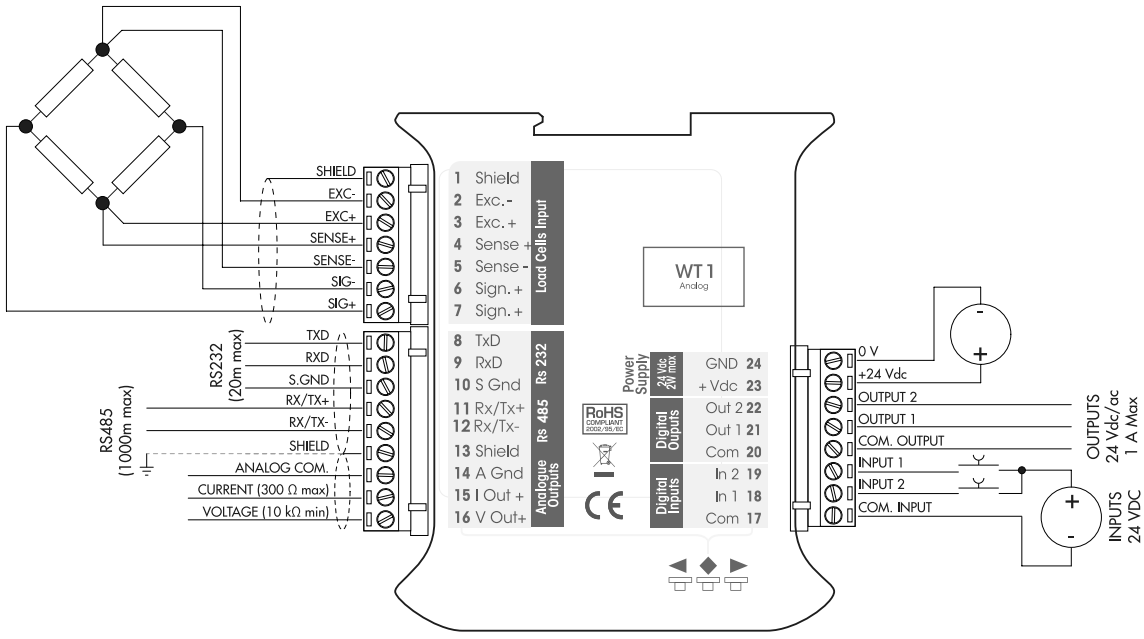
Weight Indicator

WIRING DIAGRAM



Connections depend upon selected output options

SPECIFICATIONS

PERFORMANCE

Power Output
4 V

Measuring Range
–4 to +4 mV/V

Input Sensitivity
0.02 µV/division

Linearity
<0.01% of full scale

Gain Drift
<0.001% of full scale ˚C

D/A Convertor
24 bit

Maximum Load Cells
4 at 350 Ω

Internal Resolution
16,000,000 counts

Visible Resolution
60,000 counts (visible on net weight)

Divisions Value (Adjustable)
0.001 to 50

Filter (Adjustable)
0.2 to 25 Hz

ENVIRONMENTAL

Operating Temperature
–10 to +50 ˚C

Storage Temperature
–20 to +60 ˚C

DISPLAY AND KEYBOARD

Display
5 digit, 7 segment, LED

Digit Height
7 mm

Keyboard
3 key mechanical keyboard

ELECTRICAL

Voltage
24 ±10% VDC

Wattage
2 W

INPUT AND LOGICS

Logic Input
24 VCC (external voltage), 2 opto-isolated, PNP

Logic Output
2 solid state relays
(maximum load 24 VDC/100 mA each)

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ANALOG OUTPUT (OPTIONAL)

Output
16 bit, opto-isolated

Tension
0 to 5/10 V, (R Min 10 kΩ)

Current
0/4 to 20 mA (R max 300 Ω)

Linearity
<0.03% of full scale

Temperature Drift
<0.002% full scale ˚C

SERIAL COMMUNICATION

Serial Output #1
RS485 full duplex with ASCII or
Modbus RTU protocol

Baud Rate
2400 to 115200 (adjustable)

Serial Output #2 (with Analog Output option)
RS232C half duplex with ASCII or
Modbus RTU protocol

Baud Rate
2400 to 115200 (adjustable)

ENCLOSURES

Dimensions
119 x 112 x 23 mm, L x H x D

Mounting
DIN rail

Electrical Connections
5.08 mm terminal screw pass

APPROVALS

EN
EN61000-6-2, EN61000-6-3 for EMC;
EN61010-1 for electrical safety

ORDERING INFORMATION FOR WT1

M O D - O

MODEL
WT1

OUTPUT OPTION (O)*
NA = No analog option, but RS485 full duplex output
ANA = Analog option, with RS232C half-duplex output

Example Completed Part Numbers:
WT1-ANA is the part number for a WT1 with the analog and RS232C outputs.
WT1-NA is the part number for a WT1 with the RS485 output only.
***This is mandatory: customers must select an output option.**

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