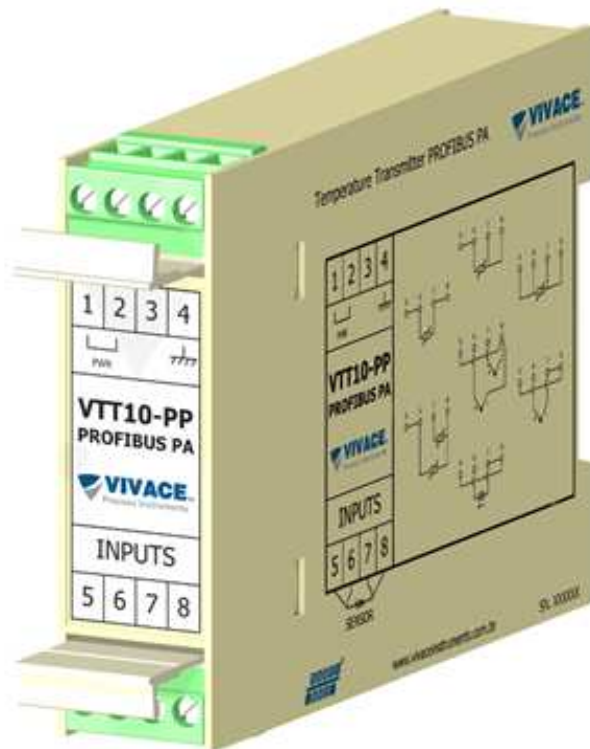


VTT10-PP

TEMPERATURE TRANSMITTER AND 4-20 mA TO PROFIBUS PA CONVERTER

panel model



- ✓ Two Wire Powered Transmitter with Profibus-PA Communication Protocol
- ✓ Sensor Inputs RTD, TC, Ohm and mV
- ✓ 4-20 mA to Profibus-PA Input Converter (1 channel)
- ✓ Single, Double, Differential and Backup Measurement
- ✓ 2, 3 or 4 Wires Measurement
- ✓ Callendar Van Dusen
- ✓ Galvanic Isolation of 1.5 kVAC
- ✓ Ambient Temperature Compensation
- ✓ Bus Powered 9 to 32 Vdc (no polarity)
- ✓ Operating Temperature -40 a 85 °C
- ✓ DIN rail assembly
- ✓ Configuration, Calibration, Monitoring and Diagnostics via Configurator Supported by Android, EDDL and FDT/DTM Tools

DESCRIPTION

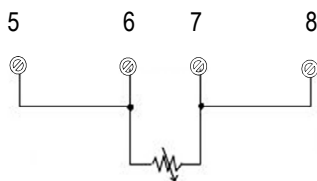
VTT10-PP is a member of Vivace Process Instruments Temperature Transmitters family, designed to DIN rail assembly. It meets several type of sensors, such as thermocouples and RTDs, besides Ohm and mV. The VTT10-PP can also receive a 4-20 mA input signal, converting it to Profibus-PA, facilitating the integration of conventional 4-20 mA equipment into the Profibus system.

The transmitter is powered by a 9 to 32 Vdc bus voltage using Profibus-PA communication protocol for configuration, calibration, monitoring and diagnostics.

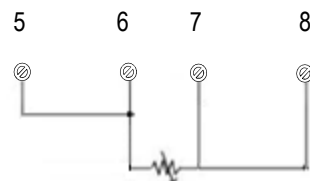
Using a Profibus-PA configurator or Android platform, EDDL and FDT/DTM tools it is possible to configure the sensor type, measuring scales, work units, perform a calibration in addition to monitoring the measurement variables and checking the status of the device.

Prioritizing its high performance and robustness, the VTT10-PP was designed with the latest technology of electronic components and materials, ensuring long-term reliability for any scale systems.

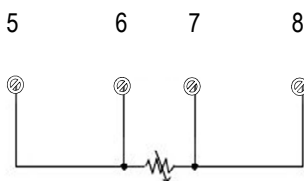
SENSOR CONNECTION



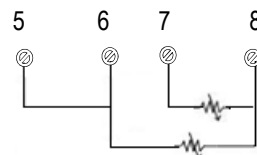
Two wires RTD or Ω connection



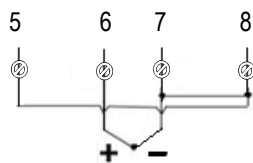
Three wires RTD or Ω connection



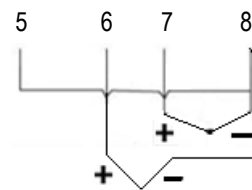
Four wires RTD or Ω connection



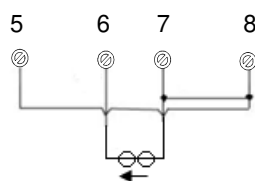
RTD or differential Ω connection



Thermocouple or mV connection



Thermocouple or differential mV connection



4 – 20 mA Input connection

SENSOR TYPES

RTD – Temperature sensor based on resistance with 2, 3 or 4 wires connection

SENSOR OPTION	REFERENCE	INPUT RANGE (°C)	MINIMUM SPAN (°C)	ACCURACY (°C)
Pt100 ($\alpha=0.00385$)	IEC751	-200 to 850	10	0.10
Pt200 ($\alpha=0.00385$)	IEC751	-200 to 850	10	0.50
Pt500 ($\alpha=0.00385$)	IEC751	-200 to 850	10	0.20
Pt1000 ($\alpha=0.00385$)	IEC751	-200 to 300	10	0.20
Pt100 ($\alpha=0.003916$)	JIS1604	-200 to 645	10	0.15
Pt200 ($\alpha=0.003916$)	JIS1604	-200 to 645	10	0.70
Ni120	Edison Curve #7	-70 to 300	10	0.08
Cu10	Edison Copper Winding #15	-50 to 250	10	1.00
Pt50 ($\alpha=0.00391$)	GOST 6651-94	-200 to 850	10	0.20
Pt100 ($\alpha=0.00391$)	GOST 6651-94	-200 to 850	10	0.12
Cu50 ($\alpha=0.00426$)	GOST 6651-94	-50 to 200	10	0.34
Cu50 ($\alpha=0.00428$)	GOST 6651-94	-185 to 200	10	0.34
Cu100 ($\alpha=0.00426$)	GOST 6651-94	-50 to 200	10	0.17
Cu100 ($\alpha=0.00428$)	GOST 6651-94	-185 to 200	10	0.17

TC - Temperature sensor based on mV with 2 wires connection

SENSOR OPTION	REFERENCE	INPUT RANGES (°C)	MINIMUM SPAN(°C)	ACCURACY (°C)
Thermocouple B	IEC584	100 to 1820	25	0.75
Thermocouple E	IEC584	-50 to 1000	25	0.20
Thermocouple J	IEC584	-180 to 760	25	0.25
Thermocouple K	IEC584	-180 to 1372	25	0.25
Thermocouple N	IEC584	-200 to 1300	25	0.40
Thermocouple R	IEC584	0 to 1768	25	0.60
Thermocouple S	IEC584	0 to 1768	25	0.50
Thermocouple T	IEC584	-200 to 450	25	1.00
Thermocouple L	DIN43710	-200 to 900	25	0.35
Thermocouple U	DIN43710	-200 to 600	25	0.35
Thermocouple W3	ASTM E988-96	0 to 2000	25	0.70
Thermocouple W5	ASTM E988-96	0 to 2000	25	0.70
Thermocouple L	GOST R 8.585	-200 to 800	25	0.45

Ohm or mV - Linear resistive sensor or mV with 2, 3 or 4 wires

SENSOR OPTION	INPUT RANGES	ACCURACY
mV Input	-10 mV to 100 mV	0.015 mV
Ohm Input	0 Ohm to 2000 Ohm	0.45 Ohm

TECHNICAL AND PHYSICAL SPECIFICATION

Accuracy	As the above tables
Power Supply / Current	9 to 32 Vdc (no polarity) / 12 mA
Communication Protocol	Profibus-PA, according to IEC 61158-2 (H1)
Hazardous Area Certifications	Explosion Proof and Intrinsically Safe
Ambient Temperature Limits	- 40 to 85°C
Configuration	EDDL and FDT/DTM tools, as well as Android platform.
Assembly	DIN rail
Protection Degree	IP00 / IP66 (Installed)
Electrical Isolation	Galvanic Isolation, 1.5 kVac
Housing Material	Injected ABS Plastic
Dimension / Approximate Weight	76 x 23 x 105 mm / 105 g

ORDERING CODE

VTT10-P *Temperature Transmitter - Panel*

Communication Protocol	H	HART
	P	PROFIBUS
Certification Type	0	NO CERTIFICATION
	1	INTRINSICALLY SAFE
Certification Body	0	NO CERTIFICATION
	1	INMETRO
Discrete Output	0	NO DISCRETE OUTPUT
	1	WITH DISCRETE OUTPUT

Ordering Code Example:

VTT10-P	P	-	0	0	0
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