

VTT01-P

4-20 mA TEMPERATURE TRANSMITTER panel model



- ✓ Two Wire Transmitter
- ✓ Sensor Inputs
RTD, TC, Ohm and mV
- ✓ 2, 3 or 4 Wires Measurement
- ✓ Ambient Temperature Compensation
- ✓ Galvanic Isolation
1.5 kVac
- ✓ Panel Mounting (DIN Rail T)
- ✓ Power Supply
12 to 35 Vdc
- ✓ Analog Output 4-20 mA
NAMUR NE 43
- ✓ Operation Temperature
-40 to 85°C
- ✓ Configuration and Calibration via USB
Communication with VTT01 Tool

DESCRIPTION

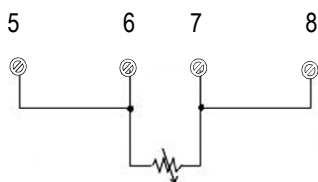
VTT01-P is a member of Vivace Process Instruments family of Temperature Transmitters, designed for installation in DIN rail panels. It serves several types of sensors, such as: thermocouples and RTDs, plus resistance and voltage signals.

The transmitter is powered by a voltage of 12 to 35 Vdc and generates a current of 4 to 20 mA, according to NAMUR NE43.

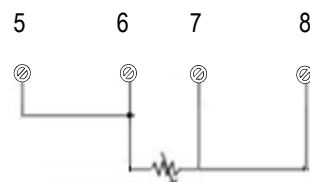
Via the VUI10 (USB communication) configuration interface, you use the VTT01 Tool software to configure the sensor type, measuring scales, work units and calibration, and monitor the measurement variables and check the equipment status.

Prioritizing its high performance and ruggedness, the VTT01-P is designed with the latest electronics and materials technologies, ensuring long-term reliability for systems of any scale.

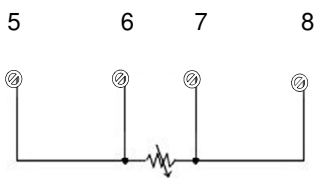
SENSOR CONNECTION



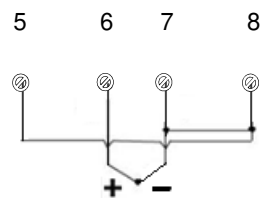
2-wire RTD or resistive connection



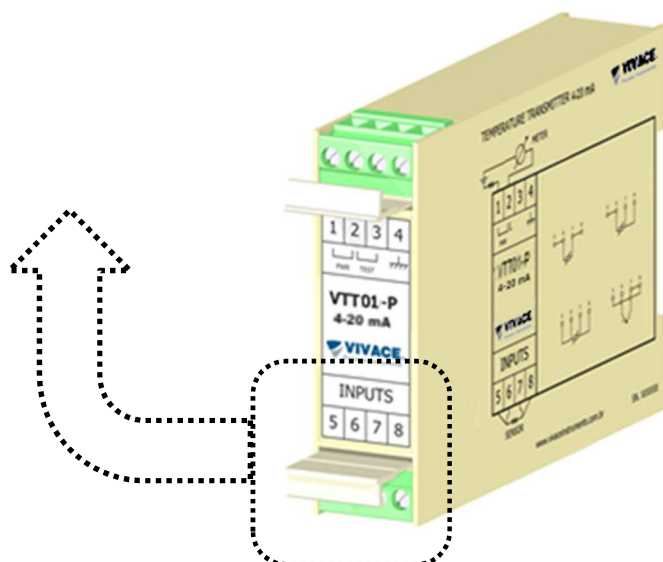
3-wire RTD or resistive connection



4-wire RTD or resistive connection



Thermocouple or mV connection



SENSOR TYPE

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

SENSOR OPTION	REFERENCE	INPUT RANGE (°C)	MINIMUM SPAN (°C)
Pt100 ($\alpha=0.00385$)	IEC751	-200 to 850	10
Pt100 ($\alpha=0.003916$)	JIS1604	-200 to 645	10
Ni120	Edison Curve #7	-70 to 300	10

Accuracy for RTD: $\pm 0.1\%$ of maximum span.

TC – Temperature sensor based on mV with 2 wires connection

SENSOR OPTION	REFERENCE	INPUT RANGES (°C)	MINIMUM SPAN(°C)
Thermocouple E	IEC584	-50 to 1000	25
Thermocouple J	IEC584	-180 to 760	25
Thermocouple K	IEC584	-180 to 1372	25
Thermocouple N	IEC584	-200 to 1300	25
Thermocouple R	IEC584	0 to 1768	25
Thermocouple S	IEC584	0 to 1768	25
Thermocouple T	IEC584	-200 to 450	25
Thermocouple L	DIN43710	-200 to 900	25
Thermocouple U	DIN43710	-200 to 600	25
Thermocouple W3	ASTM E988-96	0 to 2000	25
Thermocouple W5	ASTM E988-96	0 to 2000	25

Accuracy for TC: $\pm 0.2\%$ of maximum span.

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

SENSOR OPTION	INPUT RANGE	MINIMUM SPAN	ACCURACY
mV Input	-10 mV to 100 mV	2 mV	0.2 mV
Ohm Input	0 Ohm to 400 Ohm	4 Ohm	0.8 Ohm

TECHNICAL AND PHYSICAL SPECIFICATIONS

Accuracy	As the tables above
Power Supply / Output Current	12 to 35 Vdc / 4-20 mA according to NAMUR-NE43
Communication Protocol	Proprietary, via USB
Ambient Temperature Limits	- 40 to 85°C
Configuration	VTT01 Tool and VUI10 Interface (USB)
Process Connection	Panel Mounting (DIN Rail)
Protection Degree	IP00 / IP66 (Installed)
Electrical Isolation	Galvanic Isolation, 1.5 kVac
Housing Material	ABS Plastic
Dimension / Approximate Weight	Ø 76 x 23 x 105 mm / 105 g

ORDERING CODE

VTT01 4-20 mA Temperature Transmitter

Model	H	HEAD
	P	PANEL

Ordering Code Example:

VTT01-	P
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