

# VTT01-H

## TEMPERATURE TRANSMITTER 4-20 mA

head 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
- ✓ Head Mounting (DIN 43729 B)
- ✓ 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-H** is a member of the Vivace Process Instruments Temperature Transmitters family, designed to DIN B head mounting assembly. It meets several type of sensors, such as thermocouples and RTDs, besides Ohm and mV.

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

Using the configuration interface **VUI10** (USB communication) and the software **VTT01 Tool** is possible to configure the sensor type, measuring scales, work units, calibration in addition to monitoring the measurement variables and checking the status of the device.

Prioritizing its high performance and robustness, the VTT01-H was designed with the latest technology of electronic components and materials, ensuring long-term reliability for any scale systems.

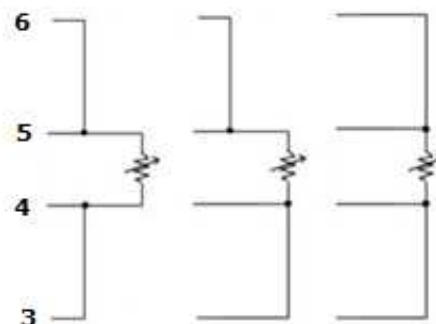
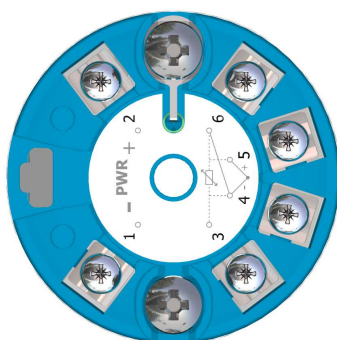
## SENSOR CONNECTION

### RTD or $\Omega$

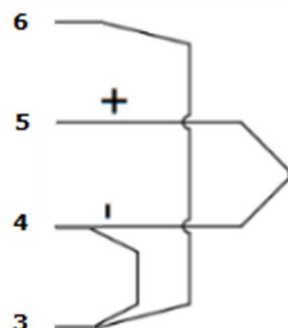
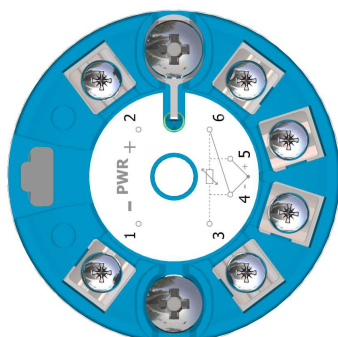
#### 2-wires

#### 3-wires

#### 4-wires



### TC / mV



## 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	Head Mounting according to DIN 43729 Form B
Protection Degree	IP00 / IP66 (Installed)
Electrical Isolation	Galvanic Isolation, 1.5 kVac
Housing Material	ABS Plastic
Dimension / Approximate Weight	Ø 45 x 23 mm / 90 g

## ORDERING CODE

### VTT01 4-20 mA Temperature Transmitter

Model	H	HEAD
	P	PANEL

Ordering Code Example:

VTT01-	H
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