

# T LINE

## Loop powered transmitters

# T121

Universal temperature transmitter (loop power supply)

### OUTPUT

4..20 / 20..4 mA, 2 wire

### POWER SUPPLY

7..30 Vdc

### SETTINGS

PC software (KT120):  
start/full scale, rejection,  
Sensor type, cable  
resistance, over-range etc.



### INPUT

Pt100, Ni100, Pt500,  
Pt1000, TC J, K, R, S, T,  
B, E, N, potentiometer,  
voltage

**Accuracy class**

0,1%

**Max A/D resolution**

16 bit

**Galvanic isolation**

1500 Vac

**Electrical connections**

Spring clamps - *push wire*

**Operating temperature**

-40..+85°C



➔ For further information, please visit [www.seneca.it](http://www.seneca.it)

# T121

## Universal temperature transmitter (loop power supply)

### TECHNICAL FEATURES

#### T121 – Universal temperature transmitter (loop power supply)



### ORDER CODES

Codes	Description
<b>Model</b>	T121 Universal temperature transmitter (loop power supply)
<b>Accessories and programming</b>	S117P Configuration tool-kit inclusive of USB – RS232/TTL converter, PM002411 (cable), T120, EASYLP (programming software)

### THERMOMECHANIC FEATURES

<b>Operating temperature</b>	-40..+85 °C
<b>Humidity</b>	30-90% @ 40°C (non condensing)
<b>Storage temperature</b>	-40..+105°C
<b>Electrical connection</b>	Spring clamps
<b>Wire size</b>	0,2..2,5 mm <sup>2</sup>
<b>Wire skinning</b>	8 mm
<b>Housing</b>	Nylon / glass
<b>Dimensions</b>	20 mm, Ø 43,7 mm

### INPUTS

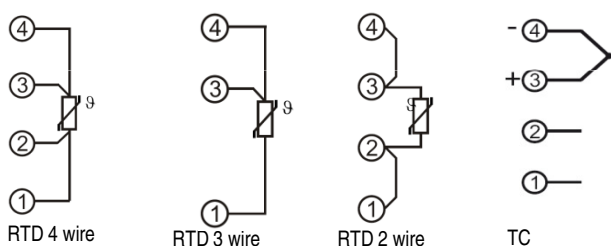
<b>Pt100</b>	EN 60751/A2 (ITS-90); range: -200..+650°C, Min span 20°C; 2, 3, 4 wires
<b>Ni100</b>	Range: -60..+650°C, min span: 20°C; 2, 3, 4 wires
<b>Pt500</b>	Range: -200..+650°C; 2, 3, 4 wires
<b>Pt1000</b>	Range: -200..+200°C; 2, 3, 4 wires
<b>Thermocouple</b>	Type J, K, R, S, T, B, E, N
<b>Potentiometer</b>	450..1800 Ω (up to 100 kΩ with parallel resistance)
<b>Voltage</b>	-150..+150 mV

### GENERAL FEATURES

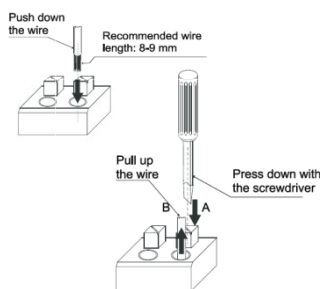
<b>Power supply</b>	7-30 Vdc
<b>Current Output</b>	4..20 / 20..4 mA
<b>Load resistance</b>	1 kΩ @ 26 Vdc, 21 mA
<b>A/D resolution</b>	2 μA (> 13 bit); max 16 bit
<b>Over range output</b>	102,5% of full scale
<b>Fault output</b>	105% of full scale
<b>Current output protection</b>	30 mA, about
<b>Rejection</b>	50-60 Hz
<b>Max transmission error</b>	0,1% (of full scale) or 0,1°C
<b>EMI</b>	< 0,5%
<b>Cable resistance</b>	0,005 Ω/Ω
<b>Temperature coefficient</b>	<100 ppm (30 ppm typical)
<b>Sampling time</b>	300 ms
<b>Response time (10..90%)</b>	< 620 ms
<b>Protection degree</b>	IP 20
<b>Approvals</b>	CE, EN 61000-6-4, EN 61000-6-2

### ELECTRICAL CONNECTIONS

#### INPUT



#### PUSH WIRE SYSTEM



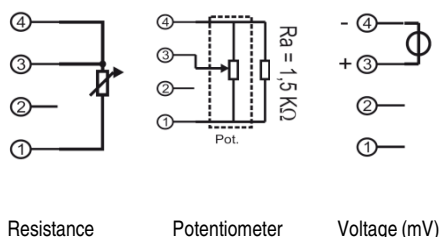
### SETTINGS (THROUGH SOFTWARE)



#### PC SETTINGS

Easy programming through S117P tool-kit, inclusive of EASYLP: start / full scale, RTD type wiring, rejection, filter, cable resistance, fault sensor output / over-range

#### INPUT

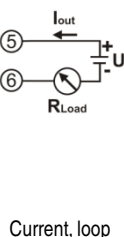


Resistance

Potentiometer

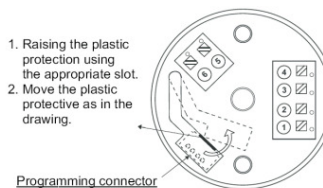
Voltage (mV)

#### OUTPUT



Current, loop power

#### FRONTAL SIDE



### DIAGRAM : LOAD RESISTANCE

