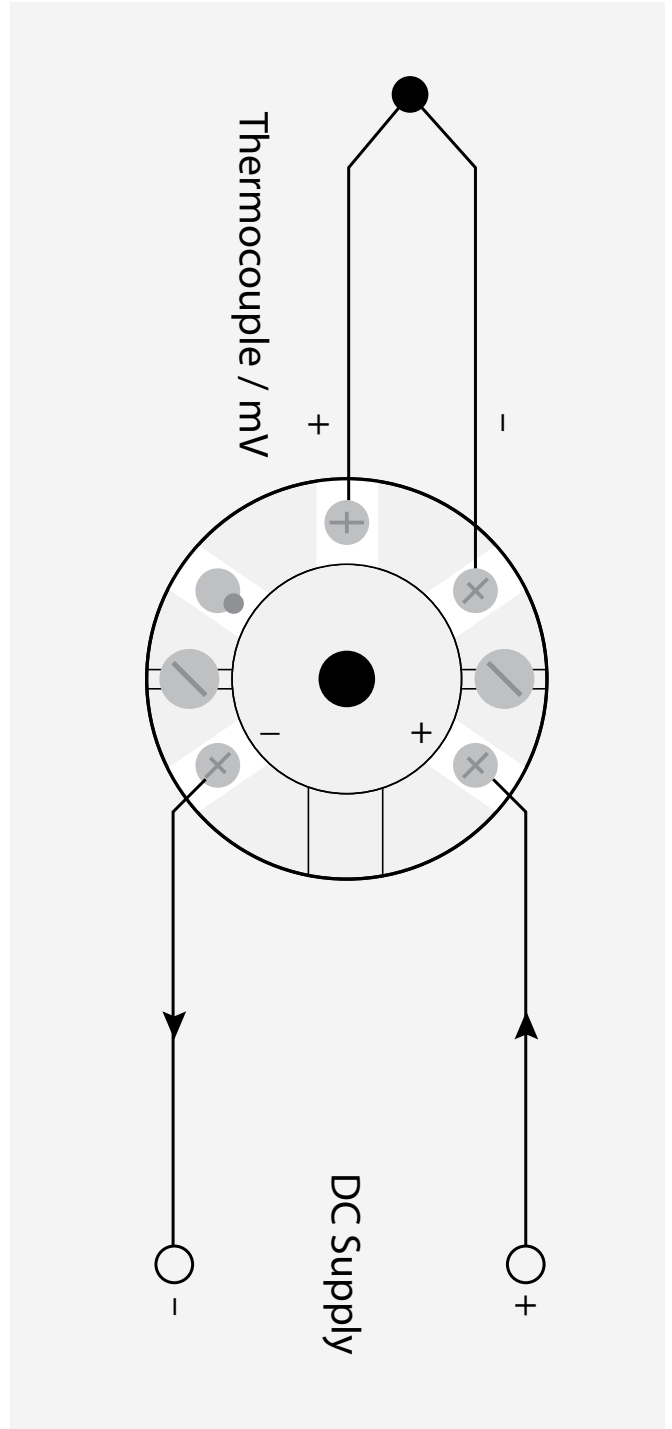


# TTC200X ATEX IECEX

## Temperature Transmitter



The TTC200X is a head-mounted programmable transmitter designed for use thermocouple temperature sensors. The TTC200X is ATEX and IECEX approved for use in hazardous area applications and can be programmed to accept thermocouple type K, J, N, E, T, R, S, L, U, B, C(W5), D(W3), G(W) plus mV INPUTS. PC configuration allows the selection of Sensor type, Range, Filter, Tag, Units and error signal direction. Additionally, it is possible to read live process data when connected to the PC, this allows for sensor offset and output alignment calibration, where values are entered to match the actual process thereby reducing system errors.



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## Temperature Transmitter

### Environmental Conditions

<b>Specifications range</b>	-40°C to +85°C
<b>Calibration temperature</b>	+20°C
<b>Ambient Storage Temperature</b>	-50 to 85 °C
<b>Ambient Humidity Range</b>	10 to 90 % RH noncondensing

### Mechanical Specifications

<b>Dimensions</b>	Ø43.0 mm x 21.0 mm
<b>Weight approx</b>	40 g

### Common Specifications

<b>Thermocouple Types</b>	Accuracy $\pm 0.1\%$ of full scale $\pm 0.5^\circ\text{C}$ (plus sensor error) K (-200 to 1370) J (-100 to 1200) E (-200 to 1000) N (-180 to 1300) L (-100 to 600) U (0 to 600) B (0 to 1800) C – D – W (0 to 2300)
	Accuracy $\pm 0.2\%$ of full scale $\pm 0.5^\circ\text{C}$ (plus sensor error) T (-200 to 400)
	Accuracy $\pm 0.1\%$ of full scale plus $\pm 0.5^\circ\text{C}$ (range 800 to 1600) R (0 to 1760, S (0 to 1760)
<b>mV</b>	Accuracy $\pm 0.02\%$ of full scale (-100 to 200) mV
<b>Response time</b>	Start up 5 seconds, Update 160 mS, Response 500 mS, Warm up 2 minutes.
<b>Connections</b>	Screw terminals 2.5 mm Maximum
<b>SUPPLY</b>	
<b>Range</b>	(10 to 30) VDC
<b>Power</b>	< 1W Full Power
<b>Scaling</b>	User signal to process value scaling, for simplified setup.
<b>Filter</b>	Adjustable time constant (0 to 100) Seconds.
<b>User Linearisation (Profile)</b>	(2 to 22) segments mV to process.
<b>Process Units</b>	4 Characters (signal input only)
<b>Temperature units °C or °F</b>	(TC inputs only)
<b>Tag Number</b>	20 Characters
<b>Process Output</b>	Range in process units
<b>User offset</b>	Enter sensor offset (Temperature mode only).
<b>Active scaling</b>	Set output process range against active sensor input

### Input Specifications - Thermocouple mV Input

<b>Standard T</b>	Types K,J,E,N,T,R,S,L,U,B,C(w5),D(W3),G(W),library
<b>mV</b>	(-100 to 200) mV $\pm 0.02\%$ of full scale.
<b>Thermal Drift</b>	Thermocouple offset 0.1 °C/°C, span 0.05 °C/°C
<b>Cold Junction</b>	Range (-40 to 85) °C, Accuracy $\pm 0.2^\circ\text{C}$ , $\pm 0.05^\circ\text{C}/^\circ\text{C}$

### Output Specifications

<b>Type</b>	Two wire (4 to 20) mA current Loop
<b>Range</b>	(4 to 20) mA ; Upscale burnout 21.5 mA ; Downscale Burnout 3.8 mA
<b>Accuracy</b>	(mA Out/ 2000) or 5 uA which ever is the greater, Drift 1 uA/°C
<b>Loop Effect</b>	$\pm 0.2\text{ uA/ V}$
<b>Max output load</b>	TTC200 [(Vsupply-10)/20] K Ohms (Example 700 Ohms @ 24 V)
<b>Loop Supply</b>	(10 to 30) VDC

### Approvals

<b>EMC</b>	EN 61326
<b>TRAC</b>	09ATEX11232X
<b>IECEX</b>	TRC 10.008X