

T-Line



694 rue des sables
60840 BREUIL LE SEC
Tel. 03 44 66 22 09
Internet www.acgs-mesure.fr E-
mail : pascal@acgs-mesure.fr

Loop powered head mounted temperature transmitters

T120 (2 wire loop powered transmitter for Pt100 and Ni100 probes)

T121 (Isolated loop powered universal temperature transmitter)

Output: 0..20, 4..20 mA

Power Supply range: 5..30 Vdc / 7..30 Vdc

Configuration: via software



Input: Pt100, Ni100, Pt500, Pt1000, TC, Ω , V

Accuracy: 0,1%

Max resolution: 16 bit

Operating temperature: -40...+85°C

Clamp connection: push wire



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Loop powered head mounted temperature transmitters

T120



2 wire loop powered transmitter for Pt100 and Ni100 probes

T121



Isolated loop powered universal temperature transmitter

ORDER CODES

Model	T120	T121
Accessories / Programming	S117P (Programming toolkit: serial connection cable, USB to RS232/TTL converter, configuration software)	S117P (Programming toolkit: serial connection cable, USB to RS232/TTL converter, configuration software)
GENERAL FEATURES		
Power Supply	5-30 Vdc (operating voltage by the loop)	7-30 Vdc (operating voltage by the loop)
Current output	4..20 mA, 20..4 mA (2 wire technique)	4..20 mA, 20..4 mA (2 wire technique)
Isolation	-	1,5 kVac
Load resistance	1 kΩ @ 26 Vdc, 21 mA	1 kΩ @ 26 Vdc, 21 mA
Resolution	1 μA (> 14 bit); max 16 bit	2 μA (> 13 bit); max 16 bit
Over-range / Fault output	102,5% / 105% full scale	102,5% / 105% full scale
Current output protection	30 mA approx	30 mA approx
Rejection	50-60 Hz	50-60 Hz
Error transmission	0,1% (Measurement range) or 0,1°C	0,1% (min 0,1°C for RTD, 1°C for TC)
Temp. coefficient	<100 ppm (30 ppm typical)	<100 ppm (30 ppm typical)
Response time (10..90%)	<220 ms; < 620 ms (with 50-60 Hz rejection)	< 1 s
Protection index	IP 20	IP 20
Standard	CE, EN 61000-6-4, EN 61000-6-2	CE, EN 61000-6-4, EN 61000-6-2
THERMECHANICS FEATURES		
Operating temperature	-40..+85°C	-40..+85°C
Connection	Spring terminals	Spring terminals
Conductor section	0,2..2,5 mm ²	0,2..2,5 mm ²
Box	Nylon / Glass	Nylon / Glass
Dimension	20 mm, Ø 43,7 mm	20 mm, Ø 43,7 mm
INPUT		
Pt100	EN 60751/A2 (ITS-90), -200..+650°C, min span 20°C; 2, 3, 4 wire	EN 60751/A2 (ITS-90), -200..+650°C, min span 20°C; 2, 3, 4 wire
Ni100	Range: -60..+650°C, min span: 20°C, connection 2, 3, 4 wire	Range: -60..+650°C, min span: 20°C, connection 2, 3, 4 wire
Pt500		Range: -200..+650°C; connection: 2,3,4 wire
Pt1000		Range: -200..+200°C; connection: 2,3,4 wire
TC		Type J , K, R, S, T, B, E, N
Potentiometer		450..1800 Ω (up to 100 kΩ with parallel resistance)
Voltage		-150..+150 mV
SETTINGS		
Factory setting	RTD wiring: 3 wire; input filter enabled; reversed output; RTD type: Pt100; measurement scale: 0..100°C	RTD wiring: 3 wire; input filter enabled; reversed output; RTD type: Pt100; measurement scale: 0..100°C
PC setting	Start / full scale value; RTD connection; rejection; measurement filter; RTD type; cable resistance; output fault / over-range	Start / full scale value; RTD connection; rejection; measurement filter; RTD type; cable resistance; output fault / over-range