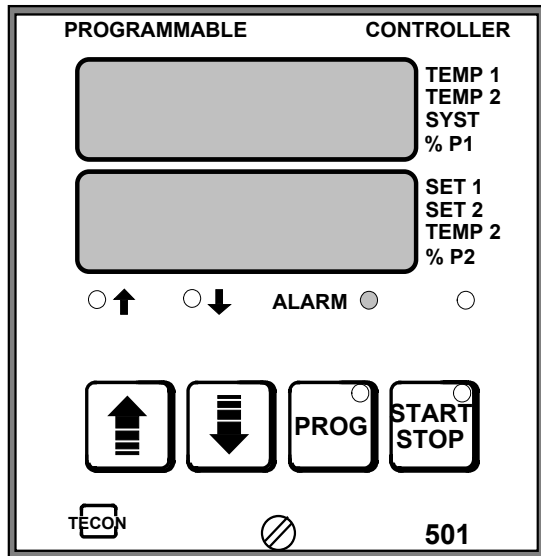


TECON 501 Programmable Controller



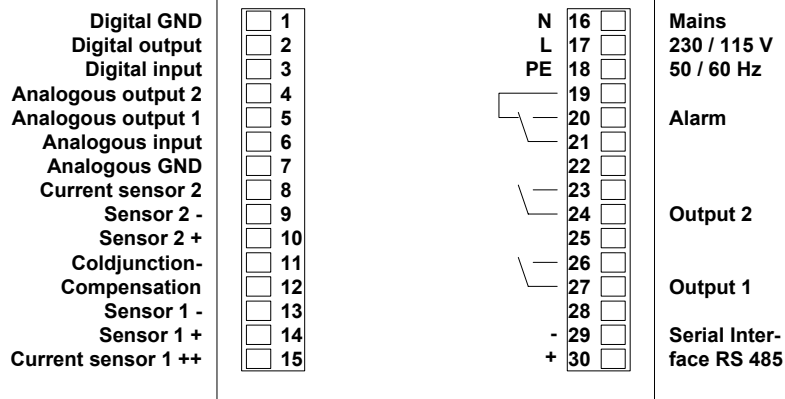
The three-term-PID controller TECON 501 is one of a series of fixed setpoint, program and cascade controllers. With 2 sensor inputs and 2 independent controllers it is designed for sophisticated controlling tasks and is adjustable in large ranges.

With additional programmable in- and outputs and a serial interface it can be used in large systems.

Nominal and actual values, power output, and state of the process program can be indicated by key with large, bright LED digits. The sensor inputs can be adjusted by key to different thermocouples, resistor temperature detectors and current signals. The controller has 2 outputs and an additional alarm relay. One temperature

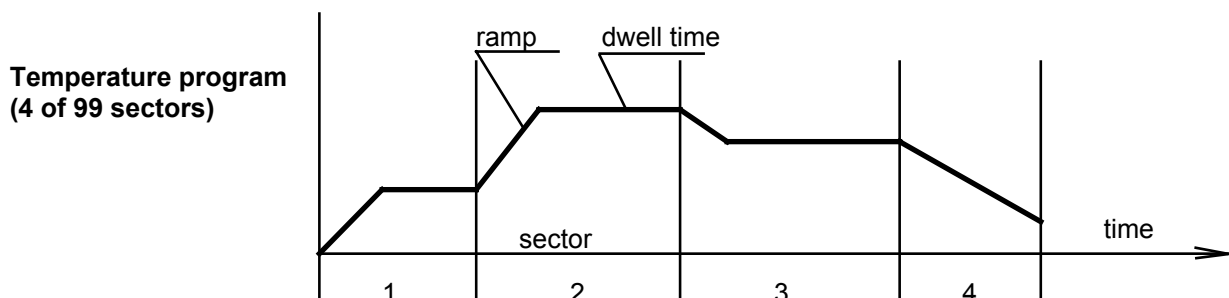
progress can be programmed and, if used with 2 controllers, a constant setpoint offset can be set. 99 program sectors are selectable by key.

Connections:



By adding option prints, the following functions are possible:

- Galvanic separation of the thermocouple inputs
- Remote control with additional keyboard
- Additional in- and outputs
- 7-Day-Clock to switch the controlling on and off



subject to changes without notice

TECON AG
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TECON 501 Programmable Controller

Technical data

Temperature sensors	Thermocouples NiCr-Ni (K) Fe-Co (J) Pt10Rh-Pt (S) Nicrosil-Nisil (N) Pt13Rh-Pt (R) Pt18Rh-Pt (B)	Measuring range: -200 to 1200 °C -200 to 750°C 0 to 1600°C -200 to 1200°C 200 to 1600°C 200 to 1800°C
RTD	Pt 100 Pt 100 with Zener barrier 84 Ohm	-200 to 750°C -200 to 400°C
Current	4- 20 mA 0- 20 mA	-200 - 2000°C -200 - 2000°C
Temp. measurement	Accuracy : Resolution : Number of measurements per second	0.3% of the range 32000 points 10
Actual value indication	Indication: Resolution:	4 digits, LED 14mm high 0.1 or 1°C
Nominal value	Range Resolution Entry	programmable 0.1 or 1°C with keys or through analogue input or via serial interface
Limit values	Analogue input: Upper and lower limit, deviation of the nominal value. Sensor break turns the controller off.	1 or 10 mV/°C or 0/4 - 20 mA
Controlling	Output: relay change-over contact PID-controlling, 2 sets of parameters Proportional band Lag time Lead time Relay interval time Dead range between heating and cooling Self adapting on keystroke while heating up.	230 V AC, 2 A 0-999°C 0 - 9999 s 0 - 999 s 0 - 999 s 0 - 99.9°C
Controller outputs	Number (selectable relay or DC-signal) Relay contact DC-signal Current	2 230 V AC, max. 2 A 24 V, internal resistance 1 kOhm 0/4 to 20 mA
Additional inputs	Analogue: nominal value Digital: function programmable	programmable, current r voltage 5 V, 0.5 mA
Additional outputs	2 analogue outputs Range Resolution of the DA-converter Accuracy	programmable, current or voltage -2 to 10 V or 0/4 to 20 mA 8000 points 0.5 % of the range
Temperature programs	1 digital output Number of sectors Ramp (gradient) Dwell time	function programmable max. 24 V, 20 mA 99 0 - 999.9°C/h 0 - 99 h 59 min or infinite
Serial interface	Type	RS 485, 2-conductor
Mains supply	alternately	230/115 V , 50/60 Hz, 10 VA
Ambient temperature		0 to 50°C
Dimensions	Front frame Controller with case can be exchanged from the front. Can be mounted in any position Mounting depth	96 x 96 mm ,14 mm high
Weight		125 mm 1.2 kg
Type of protection	Panel Enclosure	IP 64 IP 20
Safety		EN 60065
EMC	Immunity Emission	pr EN 50 082-2 EN 50 081-1



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