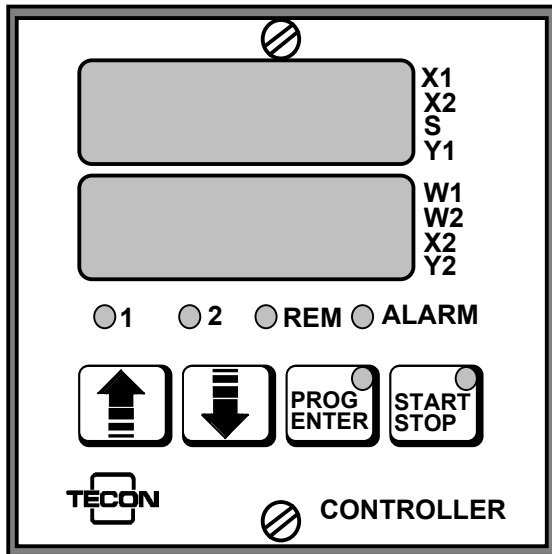


TECON 131 Universal Controller



The three-term-PID controller TECON 131 is a member of a series of fixed setpoint, programmable and cascade controllers. It is designed for simple controlling tasks and is adjustable in large ranges.

With one additional programmable in- and output each and a serial interface it can be used in larger systems.

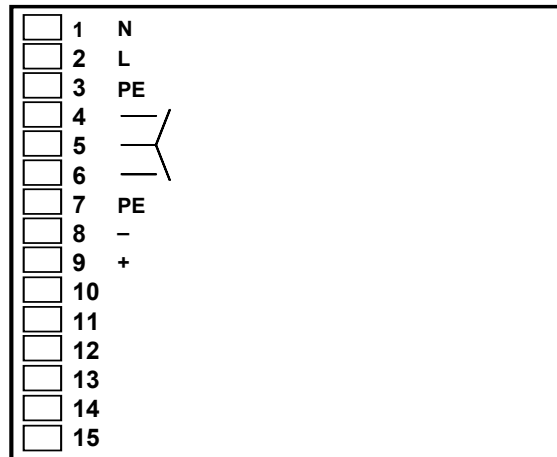
Nominal and actual value and power output can be indicated by key with large, bright LED digits. The sensor inputs can be adjusted by key to different thermocouples, resistor temperature detectors and current signals. The controller contains 2 connected relay outputs.

It can store 2 nominal values, which can be switched from outside. A ramp can be

programmed for temperature rise and fall, so that the rate of temperature change can be limited. A version with 1 program section is available too.

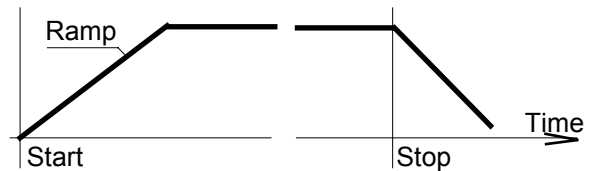
Connections

mains
230/115 V
50/60 Hz
output 2
common
output 1
protectiv earth
serial interface
RS 485
analog/digital output
analog/digital input
ground
sensor -
sensor +
sensor current ++

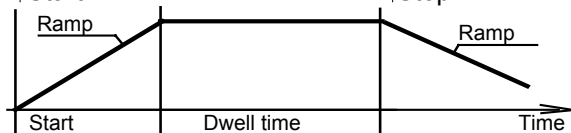


Setpoint programming:

Ramps at start and stop
(Software version 1)



1 Program section
(Software version 2)



subject to changes without notice

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TECON 131 Universal Controller

Technical Data

Temperature sensors		Measuring range:
Thermocouples	NiCr-Ni (K)	-200 to 1200 °C
	Fe-Co (J)	-200 to 750°C
	Pt10Rh-Pt (S)	0 to 1600°C
	Nicrosil-Nisil (N)	-200 to 1200°C
	Pt13Rh-Pt (R)	200 to 1600°C
	Pt18Rh-Pt (B)	200 to 1800°C
RTD	Pt 100	-200 to 750°C
	Pt 100 with Zener barrier 84 Ohm	-200 to 400°C
Current	4- 20 mA	-200 - 2000°C
	0- 20 mA	-200 - 2000°C
Temp. measurement	Accuracy :	0.3% of the range
	Resolution :	16000 points
	Number of measurements per second	10
Actual value indication	Display :	4 digits, LED 14mm height
	Resolution :	0.1 or 1°C
Nominal value	Range:	programmable
	Resolution:	0.1 or 1°C
	Entry by keys or through analogue signal or via the serial interface	
Limit values	analogue input:	1 or 10 mV/°C or 0/4 - 20 mA
Control system	High and low limit, deviation from nominal value.Sensor break turns off	
	PID-controlling, for heating and cooling separate parameters	
	Proportional band	0 - 999 °C
	Lag time	0 - 9999 s
	Lead time	0 - 999 s
	Relay interval time	0 - 999 s
	Dead range between heating/cooling	0 - 99.9 °C
	Self adapting on keystroke while heating up.	
Additional input	Analogue or digital	programmable, current or voltage
Additional output	Analogue or digital	programmable, current or voltage
	Range	-2 to 10 V or 0/4 to 20 mA
	Resolution of the DA-converter	8000 points
	Accuracy	0.5 % of the range
Controller outputs	Number (available: relay or DC-signal)	2
	Relay contact	230 V AC, max. 2 A
	DC-signal	24 V, internal resistance 1 kOhm
Temperature programs	Ramp (gradient)	0.1-999.9 °C/h
	Dwell time (software version 2 only)	0 - 99 h 59 min
Serial interface	Type	RS 485, 2-conductors
Mains supply	alternately	230/115 V , 50/60 Hz, 10 VA
Ambient temperature		0 to 50 °C
Ambient humidity		10 to 90% rh
Dimensions	Front frame	96 x 96 mm, 5 mm high
	Controller with case can be exchanged from the front,	mounted in any position
	mounting depth	125 mm
Weight		0.5 kg
Type of protection	Panel	IP 64
	Enclosure	IP 20
Safety		EN 60065
EMC	Immunity	pr EN 50 082-2
	Emission	EN 50 081-1



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