

Basic Temperature Controller Series PR 43

- Highly Accurate Performance.
- Flush Mounting Version 96x96 mm with luxurious single 4-digit LED Display.
- Wide supply range: 110-240 VAC/DC , -20 to +10% of Un.
- Front keypad with 4 keys.
- Thermocouple (J, K & T), RTD 3-wire (Pt-100) sensor inputs.
- Control Modes: Proportional, ON-OFF Asymmetric, ON-OFF Symmetric.
- °C & °F temperature unit selectable
- Selectable Output: Relay or SSR Drive
- Alarm Functionality



Ordering Information

Basic PID Temperature Controller

Cat. No. Description

151M42B	Series PR 43, Relay Output (SPDT 10A) & SSR driving output (12 VDC, 24mA max), One Relay Output (SPDT 5A)
151N42B	Series PR 43, Relay Output (SPDT 10A) & SSR driving output (12 VDC, 24mA max)

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Cat. No.	151N42B	151M42B
Parameters		
Supply Voltage (φ)	110 - 240 VAC/DC	
Supply Variation	-20% to +10% (of φ)	
Frequency	50/60 Hz	
Control Action	ON/OFF (Symmetric / Asymmetric) & Proportional	
Power Consumption	8 VA @ 265 VAC	
Temperature sensors / Inputs	Thermocouple: J, K ; RTD: PT100 - 3 wire compensation;	
Measurement Range	TC (J-type): -50 to 1000°C OR -58 to 1832°F TC (K-type): -50 to 1350°C OR -58 to 1350°F TC (T-type): -50 to 400°C OR -58 to 752°F RTD (Pt-100): -100 to 650°C OR -148 to 1202°F	
Measurement Accuracy	± 0.5% of full scale	
Resolution	1°C Fixed	
Configurable Set Points	1	
Display	7 segment, 4 digit LED display	
Keypad	4-Keys: - ESC, - Down, - Up, - Enter / Select	
Contact Arrangement	Relay: 1 C/O (SPDT)	
Contact Rating	10A RES. @ 250VAC/30VDC	5A(NO), 3A(NC), RES. @ 250VAC/30VDC
Output 1	Relay 1C/O 10A OR SSR Drive, 12 VDC 30mA (Selectable)	
Output 2	NA	Relay 1C/O 5A
Error Indications		
	<i>SEn5</i>	Sensor open/break error
	<i>oUr9</i>	Over range error
	<i>Unr9</i>	Under range error
	<i>ErRt</i>	Error in auto-tuning
	<i>noRt</i>	Auto-tuning not finished within 10 hour
	<i>cbRt</i>	Loop break interrupted
Operating Temperature	0°C to +50°C	
Storage Temperature	-20°C to +60°C	
Humidity (Non Condensing)	5 to 80% RH	
Enclosure	Flame Retardant UL 94 - V0	
Dimensions (W x H x D) (in mm)	96 x 96 x 84.4	
Weight (unpacked)	250 g	
Mounting	Flush	
Certification	Compliant	
Degree of Protection	IP 20 Terminal & Enclosure, IP 40 (For Front Panel only)	

EMI / EMC

Harmonic Current Emissions	IEC 61000-3-2 (Class A)
ESD	IEC 61000-4-2 (Level II)
Radiated Susceptibility	IEC 61000-4-3 (Level III)
Electrical Fast Transients	IEC 61000-4-4 (Level IV)
Surges	IEC 61000-4-5 (Level IV)
Conducted Susceptibility	IEC 61000-4-6 (Level III)
Voltage Dips & Interruptions (AC)	IEC 61000-4-11
Conducted Emission	CISPR 11 (Class A)
Radiated Emission	CISPR 11 (Class A)

Environmental

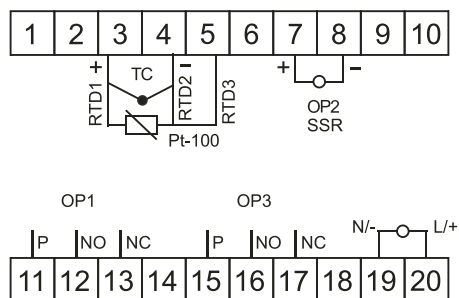
Cold Heat	IEC 60068-2-1
Dry Heat	IEC 60068-2-2
Vibration	IEC 60068-2-6 (5g)
Repetitive Shock	IEC 60068-2-27 (40g, 6ms)
Non-Repetitive Shock	IEC 60068-2-27 (30g, 15ms)

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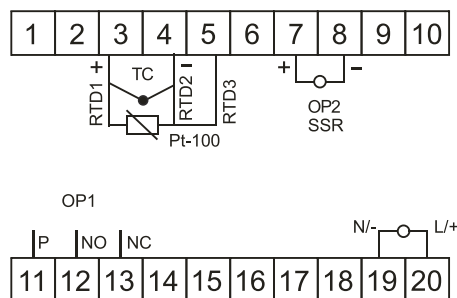


CONNECTION DIAGRAM



151M42B



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TERMINAL TORQUE & CAPACITY

 Ø 4...5.0 mm Combi Head Bit./Flat	0.5 N.m (4.4 lb.in) 0.7 N.m (6.2 lb.in)
	2 x 2.5 mm ² Solid/Stranded Wire
AWG	20 to 12

MOUNTING DIMENSION (mm)

