

Temperature Control Relay



Cat. No.	41A111AR	41A111BR
Parameters		
Series nos.	TCR - 111	TCR - 112
Number of set points	Double SP	Single SP
Supply Voltage (±)	110 - 240 VAC, -20% to +10%	
Frequency	50/60 Hz	
Power Consumption (Max.)	3 VA	
Device Characteristics		
Sensor	Inbuilt Temperature Sensor	
Temperature Unit	°C	
Display Resolution	0.1°C	
Accuracy	± 3°C Max	
Output Control Mode	Relay ON/OFF	
Hysteresis	2°C (Fixed)	
Temperature measurement and Controlling Range	-10°C to 55°C	-5°C to 55°C
Set Point Range	Low Level (StL) High Level (StH)	Internally Fixed to -5°C 0°C to +55°C
Offset	-10°C to 10°C	
Minimum difference between StH & StL (for double SP only)	4°C	
LED Indication	ON - Relay ON condition (Red Color)	
Display Type	Positive Image, Reflective, TN	
Contact Ratings	NO - 5A & NC - 3A @ 250 VAC / 30 VDC Resistive	
Operating Temperature	- 10° C to +55° C	
Storage Temperature	- 20° C to +65° C	
Dimension (W x H x D) (in mm)	18 X 85 X 82	
Weight (unpacked)	70 g	
Mounting	DIN rail	
Certification		
Degree of Protection	IP 20 for Terminals, IP 40 for Enclosure	

EMI / EMC

Harmonic Current Emissions	IEC 61000-3-2
ESD	IEC 61000-4-2
Radiated Susceptibility	IEC 61000-4-3
Electrical Fast Transients	IEC 61000-4-4
Surge	IEC 61000-4-5
Conducted Susceptibility	IEC 61000-4-6
Voltage Dips & Interruptions (AC)	IEC 61000-4-11
Conducted Emission	CISPR 14-1
Radiated Emission	CISPR 14-1

Environmental

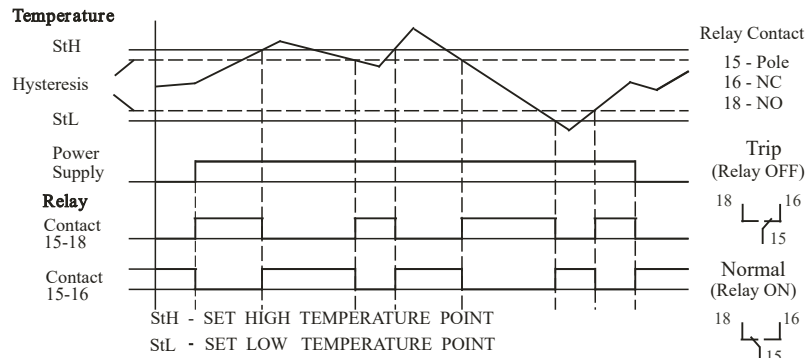
Cold Heat	IEC 60068-2-1
Dry Heat	IEC 60068-2-2
Vibration	IEC 60068-2-6
Repetitive Shock	IEC 60068-2-27
Non-Repetitive Shock	IEC 60068-2-27

Temperature Control Relay

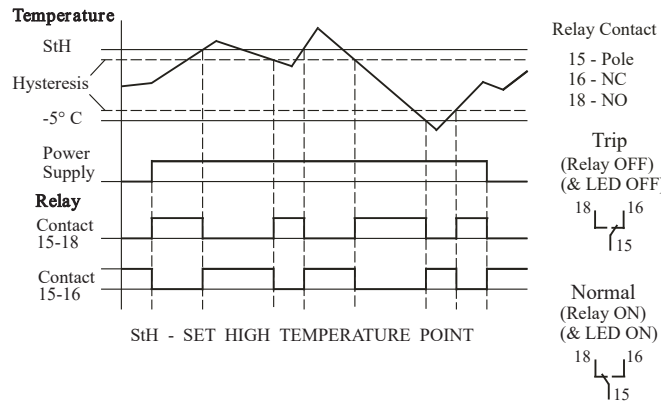


FUNCTION DIAGRAM

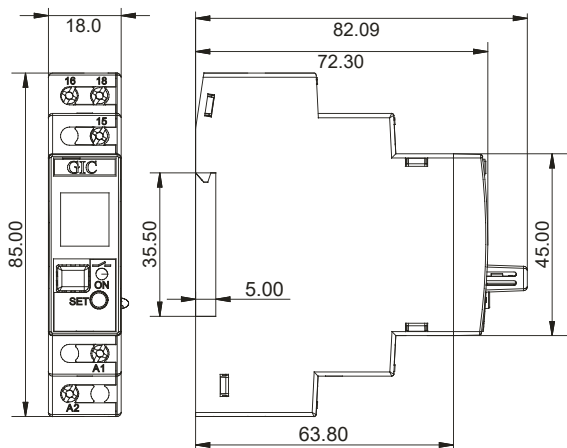
Double SP - 41A111AR:



Single SP - 41A111BR:

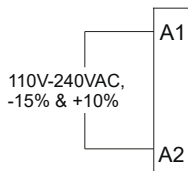


MOUNTING DIMENSIONS (mm)

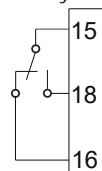


CONNECTION DIAGRAM

SUPPLY CONNECTION

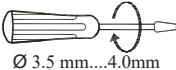



SPDT Relay CONNECTION



NO-5A & NC-3A@
250VAC/30VDC RESISTIVE

TERMINAL TORQUE & CAPACITY

 Ø 3.5 mm...4.0mm	0.60 N.m (5.3 Lb.in)
	1 x 4.0 mm ² Solid/Stranded Wire
AWG	1 x 20 to 10