

Temperature Control Relay

- Wide ambient Temperature monitoring & controlling range with inbuilt temperature sensor.
- Protection Relay against variations of the ambient temperature set point (StH & StL)
- 3 digit LCD display for Real time Temperature Indication.
- User adjustable offset (-10°C to +10°C)
- LED indication for Relay Trip.





Ordering Information

Cat. No.	Description
41A111AR	110 - 240 VAC, Temperature Control Relay (TCR - 111) Double SP
41A111BR	110 - 240 VAC, Temperature Control Relay (TCR - 112) Single SP

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	47Hz - 63Hz			
Power Consumption (Max.)	3 VA			
Device Characteristics				
Sensor	Digital IC 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)	-10°C to (StH-4°C)		Internally Fixed to 5°C
	High Level (StH)	(StL + 4°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	Terminal 15 - Pole, Terminal 16 NC, Terminal 18-NO, 5A @ 250V AC / 30 V DC (Res)			
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

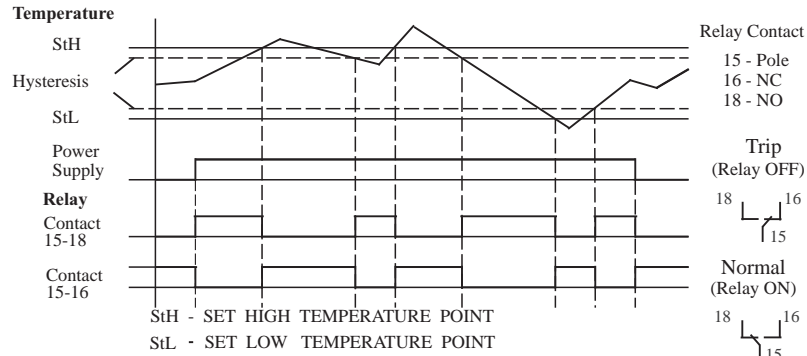
Cold Heat	IEC 60068-2-1
Dry Heat	IEC 60068-2-2
Vibration	IEC 60068-2-6
Repetitive Shock	IEC 60068-2-27
Non-Repetitive Shock	IEC 60068-2-27

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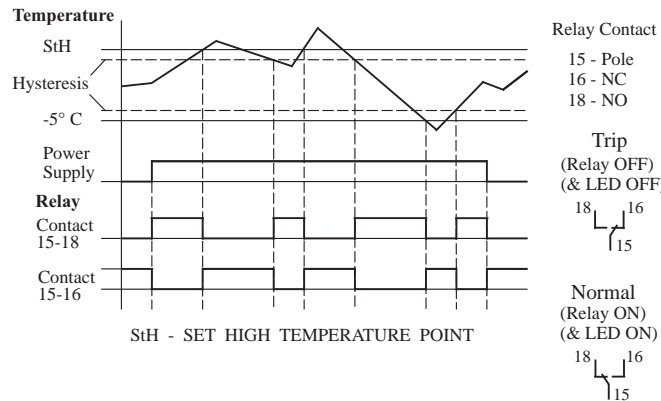


FUNCTION DIAGRAM

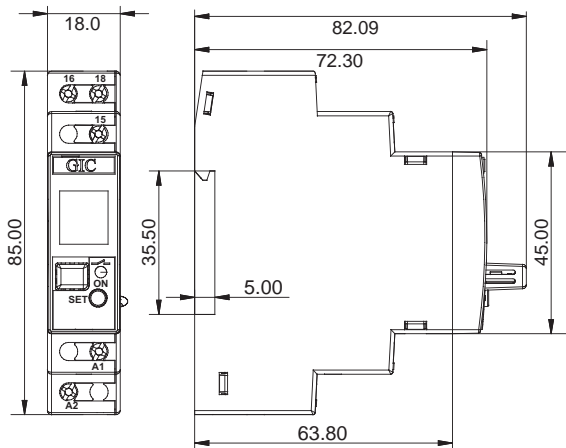
Double SP - 41A111AR:



Single SP - 41A111BR:

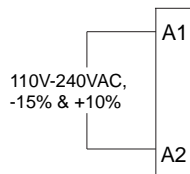


MOUNTING DIMENSIONS (mm)

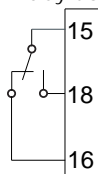


CONNECTION DIAGRAM

SUPPLY CONNECTION

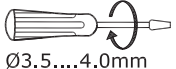



SPDT Relay CONNECTION



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

TERMINAL TORQUE & CAPACITY

 Ø3.5...4.0mm	0.6 N.m (6 Lb.in) Terminal screw - M3
	1 x 0.5...4 mm ² Stranded Wire
AWG	1 x 22 to 10