

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.



Cat. No.	41A111AR	41A111BR
Parameters		
Series nos.	TCR - 111	TCR - 112
Number of set points	Double SP	Single SP
Supply Voltage (Φ)	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)
	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	Ed. 3.0 (2005-11) Class A
ESD	IEC 61000-4-2	Ed. 1.0 (2001-04) Level II
Radiated Susceptibility	IEC 61000-4-3	Ed. 3.0 (2006-02) Level III
Electrical Fast Transients	IEC 61000-4-4	Ed. 2.0 (2004-07) Level IV
Surge	IEC 61000-4-5	Ed. 2.0 (2005-11) Level IV
Conducted Susceptibility	IEC 61000-4-6	Ed. 2.2 (2006-05) Level III
Voltage Dips & Interruptions (AC)	IEC 61000-4-11	Ed. 2.0 (2004-03)
Conducted Emission	CISPR 14-1	Ed. 5.0 (2005-11) Class B
Radiated Emission	CISPR 14-1	Ed. 5.0 (2005-11) Class B
Environmental		
Cold Heat	IEC 60068-2-1	Ed. 6.0 (2007-03)
Dry Heat	IEC 60068-2-2	Ed. 5.0 (2007-07)
Vibration	IEC 60068-2-6	Ed. 7.0 (2007-12) 5g
Repetitive Shock	IEC 60068-2-27	Ed. 4.0 (2008-02) 40g, 6ms
Non-Repetitive Shock	IEC 60068-2-27	Ed. 4.0 (2008-02) 40g, 6ms

ORDERING INFORMATION

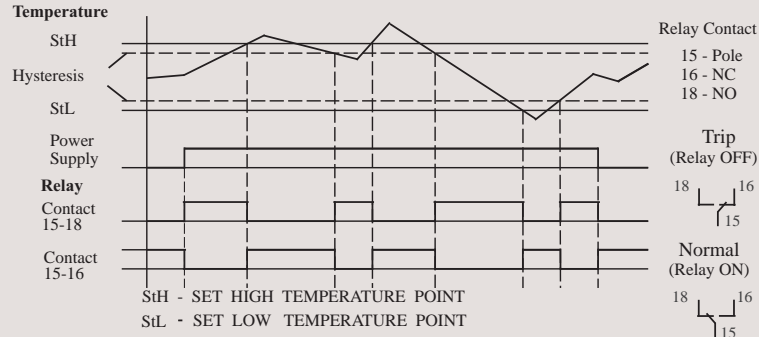
Cat. No.	Description
41A111AR	110 - 240 VAC, Temperature Control Relay (TCR - 111) Double SP
41A111BR	110 - 240 VAC, Temperature Control Relay (TCR - 112) Single SP

Temperature Control Relay

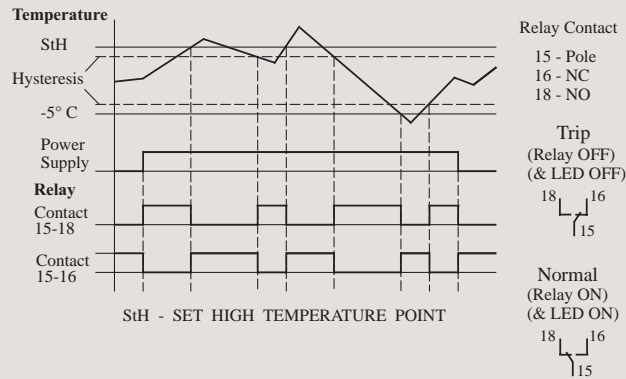


FUNCTION DIAGRAM

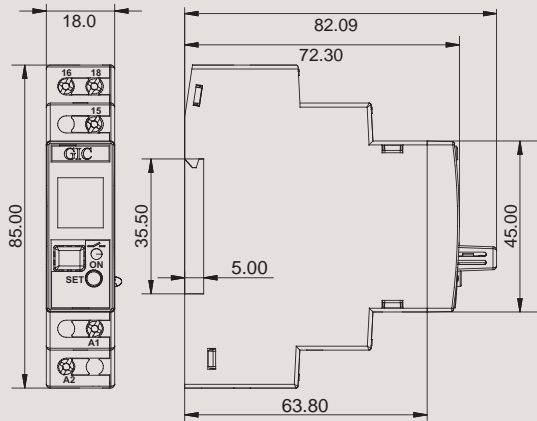
Double SP - 41A111AR:



Single SP - 41A111BR:

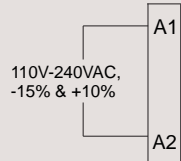


MOUNTING DIMENSIONS (mm)

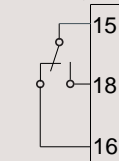


CONNECTION DIAGRAM

SUPPLY CONNECTION

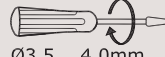



SPDT Relay CONNECTION



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