

tekmar[®] Submittal

Difference Setpoint Control 155



Alt. Energy

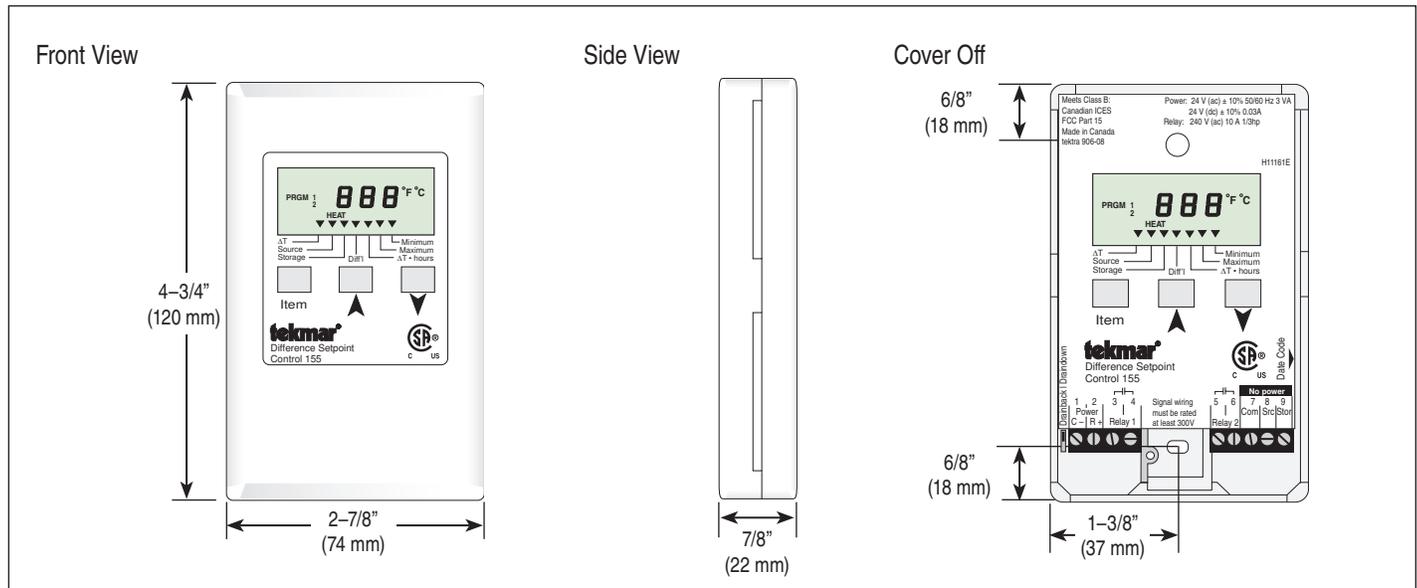
C 155

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Replaces: New

Job _____ Designer _____ Contact _____

The Difference Setpoint Control 155 is designed to transfer heat from an intermittent heat source to a storage tank. It can be used in applications ranging from solar thermal to wood boiler systems. Two sensors measure the temperature at the source and at the storage location, and energize a pump when there is a positive difference between the two respectively. This product uses 2 relays to accomplish this; relay 1 is a dry contact that can operate a pump (240 V (ac) dry contact), and relay 2 can be used for drain down solar installations.



Specifications

Difference Setpoint Control 155	
Literature	D155, A155, D001, D070, D085
Control	Microprocessor control. This is not a safety (limit) control
Packaged weight	1.0 lb. (450 g)
Dimensions	4-3/4" H x 2-7/8" W x 7/8" D (120 x 74 x 22 mm)
Enclosure	White PVC plastic, NEMA type 1
Approvals	CSA C US, meets class B: ICES & FCC Part 15
Ambient conditions	Indoor use only, -20 to 120°F (-30 to 50°C), RH ≤90% Non-condensing
Power supply	24 V (ac) ±10%, 50/60 Hz, 3 VA, 24 V (dc) ±10%, 0.03 A
Relays	240 V (ac) 10 A max, 1/3 hp
Sensors	NTC thermistor, 10 kΩ @ 77°F (25°C ±0.2°C) β=3892
-Included	1 Universal Sensor 071 and 1 Solar Sensor 085
-Optional	tekmar type #: 070, 071, 072, 073, 076, 077, 078, 079, 082, 083, 084
Programmed settings	Ten year memory backup
Control accuracy	±0.5°F (±0.3°C) with up to 500 ft. (150 m) of 18 AWG wire to sensors
ΔT Setpoint	2 to 90°F (1 to 50°C)
ΔT Differential	2 to 45°F (1 to 25°C)
Minimum source	-22 to 185°F (-30 to 85°C)
Min. source diff'l	2 to 45°F (1 to 25°C)
Maximum storage	-4 to 248°F (-20 to 120°C)
Max. storage diff'l	2 to 45°F (1 to 25°C)
Temperature display	Fahrenheit / Celsius
Warranty	Limited 3 Year (See D155 for full warranty)

Features

- 24 V (ac) or 24 V (dc) power supply
- Monitor minimum & maximum temperatures for source & storage
- Displays ΔT• hours to perform energy calculation
- CSA and UL certified for use in the USA and Canada
- Solar Sensor 085 immersion type sensor included

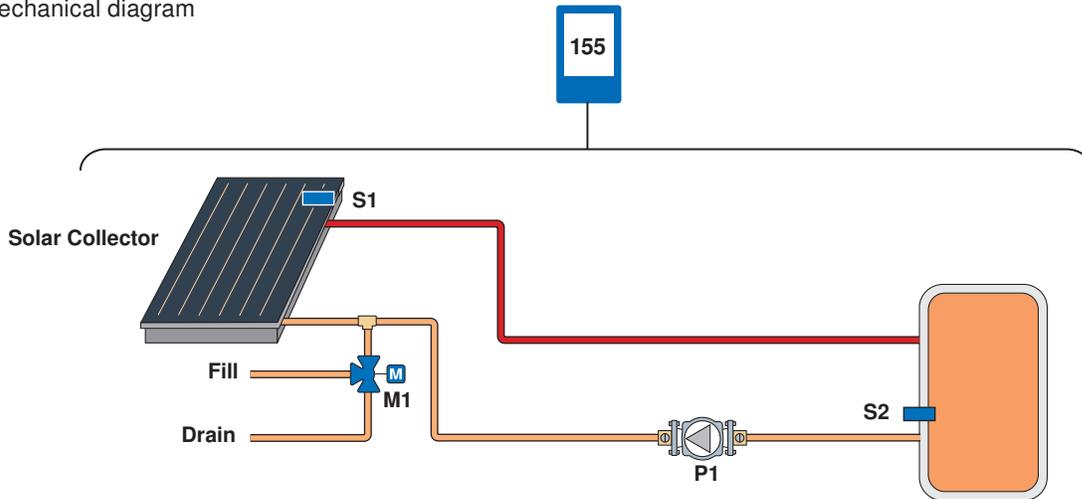
SPECIAL REQUIREMENTS

N / A

Sample Application Drawing

Below is a sample application drawing for this product. This application may include other tekmar products that are required for installation. More sample applications can be found at www.tekmarcontrols.com.

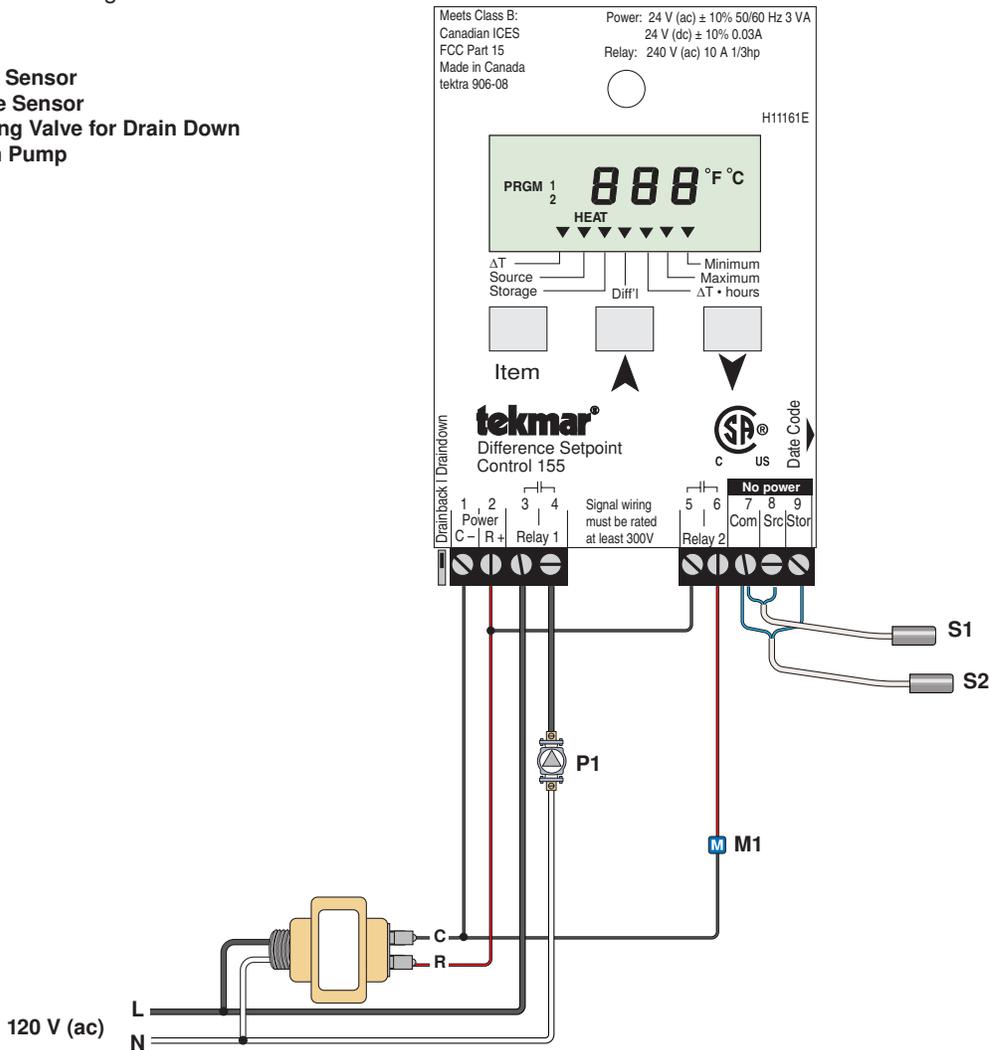
Sample Mechanical diagram



Sample Electrical diagram

Legend:

- S1 = Source Sensor**
- S2 = Storage Sensor**
- M1 = Diverting Valve for Drain Down**
- P1 = System Pump**



tekmar Control Systems Ltd., Canada, tekmar Control Systems, Inc., U.S.A. **Head Office: 5100 Silver Star Road, Vernon, B.C. Canada V1B 3K4, 250-545-7749, Fax. 250-545-0650 Web Site: www.tekmarcontrols.com**