tekmar[®] - Service Bulletin

11/98

Remote Sensor Wiring

A number of requests from the field regarding wiring of remote sensors to RTU's or controls have been received. Enclosed is data brochure D 070A 10/98 addendum that shows how to wire together these components. Please take note that this wiring information is for 10,000 ohm ($10k\Omega$) sensors and RTU's.

On some of the older tekmar controls, the RTU input is for 2,000 ohm (2k Ω) RTU's. Please **do not use** the 10 k Ω sensors with 2 k Ω inputs.

Yours truly, tekmar Control Systems Ltd.

tekmar[®]-Service Bulletin Addendum

Remote Temperature Sensing

SB 018 a

10/98

Using 10k RTU

Single Remote Sensor

 $10\ k\Omega$ Sensors that may be used: 070, 071, 072, 073, 074, 076, 077

076 Sensor



Multiple Sensor Temperature Averaging

10 k Ω Sensors that may be used: 070, 071, 072, 073, 074, 076, 077



Note: For best temperature accuracy, the RTU and the remote sensor(s) should be approximately at the same temperature.

Direct to Control

Multiple Sensor Temperature Averaging (4 Sensors)



Wiring Sensors together to obtain an average temperature from a large area is a common practice in certain applications. The important point to remember is that the tekmar sensors are thermistors and use changing resistances to measure temperature. To obtain a correct reading from multiple sensors, they must be wired together in series parallel, and this limits the choices you have as to numbers of sensors. Series parallel sensor arrays must use either: 4 sensors, 9 sensors, 16 sensors, 25 sensors, etc.

Electrical



Note: This is only a concept drawing. The designer must determine whether this system will work in his application and conform to code requirements. Necessary auxiliary equipment and safety devices must be added.

