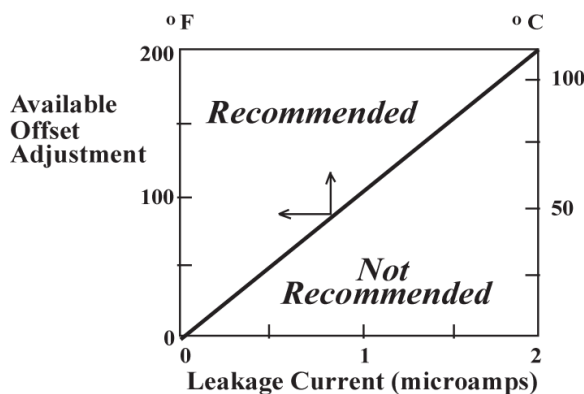


SELECTING TEMPERATURE CONTROLLERS

IRt/c infrared thermocouples are designed to be used with all thermocouple readout devices and controllers, but due to the higher impedance levels of the IRt/c compared to standard t/c's, some controllers are better suited than others. Leakage current generated by the controller (see Tech Note #16) creates an offset in reading which should be adjusted out for accurate temperatures. If the offset produced by the leakage current is larger than the available offset adjustment of the controller, the IRt/c will still produce repeatable readings and control



accurately, but the temperature indication will be incorrect. Accordingly, recommended controllers are those which have low leakage currents and/or sufficient offset adjustment to produce an accurate IRt/c reading (see chart for relationship between leakage current and offset).

Following is a list of controller manufacturers with models known to have low leakage currents and are recommended for use with the IRt/c:

Athena, Cal Controls, Eurotherm, Fenwal, Fuji, Honeywell, Love, Newport, Omega, Omron, Partlow, Red Lion, Syscon, Watlow, Yamatake-Honeywell, Shinko Technos

This list is not a comprehensive one - manufacturers are constantly improving their models. Contact your local Authorized IRt/c Distributor for specific models, or the controller manufacturer to inquire as to suitability of specific models for service with an IRt/c (sensor impedance of ~5 Kohms).

Exergen Corporation office:

USA
400 Pleasant Street
Watertown, MA 02472
Tel: +1 617 923 9900 press 4 for industrial
Fax: +1 617 923 9911

Exergen Industrial International/OEM Sales office:

Clever IR
The Netherlands
Pastoor Clercxstraat 26
5465 RH Veghel
Tel: +31 (0)413 376 599

industrial@exergen.com
www.exergen.com

TN-037-1-EN