



IRt/c™ Infrared Thermocouples  
OEM & FACTORY AUTOMATION

**EXERGEN**  
CORPORATION



# Non-Contact Temperature Sensors as easy to use as photocells & proximity sensors



**IRt/c.3X  
Infrared Sensor**



**IRt/c.1X  
Infrared Sensor**



**SnakeEye™  
Thermal Photo Switch**



**More than 300 non-  
contact temperature  
sensor models...one for  
every application**

All IRt/c models connect direct to t/c inputs



**t/c.XMTR  
in-line transmitter**

or direct to  
analog input

4-20 mA  
0-5 v  
0-10 v

direct to digital input



**Compatible with all  
types of PLCs's &  
process control  
computers, etc...**

**...low cost  
& with complete system compatibility for:**

- Web drying to control the dry-out point
- Presence and registration of hot melt adhesive
- In-oven zone control based on *product* temperature
- Laminating temperature control
- Empty bottle/can detection
- Vacuum and thermoforming
- And hundreds of other applications



For more information on the innovative IRt/c approach to temperature measurement and control, contact your authorized Exergen Distributor or call Exergen at 617.923.9900. Be sure to ask for The IRt/c Book: Handbook of Non-Contact Temperature Sensors for complete specifications, operating principles, installation tips and application mini-case histories.

# Non-Contact Thermal Sensors: Specifications and Factory Automation Compatibility

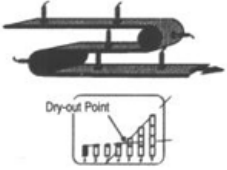
## Application\*

## Sensors\*

## Interface

## Control System

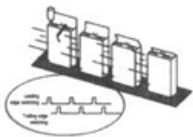
### Web Temperature: Precision Drying Control



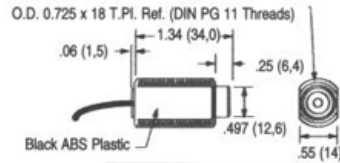
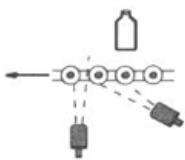
### Discrete Product Thermal Control



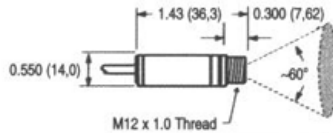
### High Speed Detection: Hot Melt Adhesive



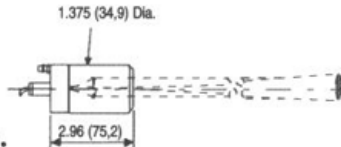
### High Speed Switching: Thermal Signatures



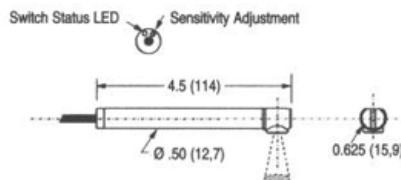
**IRt/c.01**



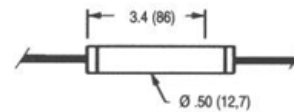
**IRt/c.1X**



**IRt/c.10**



**SnakeEye™ Thermal Switch**



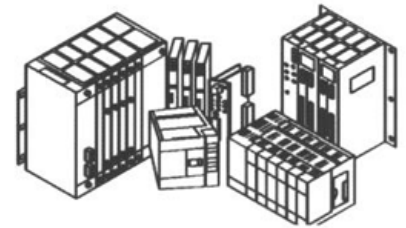
**t/c.XMTR Transmitter**

### Local Discrete Controllers, Displays

### Direct to analog input

### Direct to t/c input

### Direct to digital input



Compatible with all types of PLC's & Computers

\*Over 300 Non-Contact Thermal Sensors and 100 application Tech Notes are available to improve your automation. For complete application, model selection and specifications, ask your local Factory Authorized IRt/c Distributor, or call Exergen for individual data sheets, or the complete 140 page catalog:

**The IRt/c Book**  
Handbook of Non-Contact Temperature Sensors

### Specifications\*

|   | IRt/c.01   | IRt/c.1X   | IRt/c.10        | SnakeEye                    | t/c.XMTR                              |
|---|--|--|-----------------|-----------------------------|---------------------------------------|
| <b>Response Time Constant</b>                   | 0.1 seconds approximately  |  |                 | 0.01 sec                    | 0.1 sec                               |
| <b>Output Signal</b>                            | Type J, K, E, T thermocouple, plug compatible to t/c input cards and local discrete controllers, self-generating signal, no power required |  |                 | 2 solid state switches, N/O | 4 to 20 mA 2-wire loop, precalibrated |
| <b>Housing: (all meet NEMA 4, 4x, IP65, 67)</b> | ABS, hermetically sealed, intrinsically safe   | stainless steel, hermetically sealed, intrinsically safe | stainless steel | stainless steel             | stainless steel, hermetically sealed  |

### Factory Authorized Distributor: