

# linecard



*Instrumentors Supply* is the Northwest's premier supplier of heating, measurement, and process control devices used in industrial manufacturing. With service throughout the Pacific Northwest, Idaho, and Utah, we are dedicated to offering our customers unparalleled technical assistance and customer support.

To speak directly to our knowledgeable sales staff, call us today or visit us on the internet for more information, including how to apply for an account or request a quote online.



Whether it's designing a custom process control system like this one, or recommending a simple band heater, ISI is the one-stop source for all your heat, sensor, and process control needs.

# products

## **B**

Band Heaters



Band/Nozzle Heaters

## **C**

Contactors  
Counters  
Cable Heaters  
Capacitance Sensors  
Cartridge Heaters  
Ceramic Heaters  
Circulation Heaters  
Conductivity Meters  
Control Panels  
Current Indicators



Cartridge Heaters

## **D**

Data Loggers/Data Acquisition

## **E**

Encoders

## **F**

Fiber Optic Sensors  
Flexible Silicon Heaters  
Flow Switches/Meters

## **G**

Gauges

## **H**

Heat Trace  
Hot Air Systems  
High Temp Wire  
Humidity Sensors & Controls



Power Supplies

## **I**

Immersion Heaters  
Inductive Proximity Sensors  
Infrared Heaters/Sensors

## **L**

Level Sensors/Controls  
Limit Switches  
Liquid Level Sensors  
Load Cells  
LVDT's

## **M**

Measurement Sensors  
Mechanical Contactors  
Mechanical Counters  
Mercury Relays  
Motor Contactors & Starters

## **P**

Panel Meters  
PH Meters, Sensors, Controls  
Photo Proximity  
PLC's  
Position Controllers  
Position Transducers  
Power Supplies  
Pressure Transducers



Temperature Controls

## **Q**

Quartz Heaters

## **R**

Radiant Heaters  
Relays  
RTD's

## **S**

Safety Equipment  
SCR's  
Signal Conditioners  
Solid State Power Controls  
Speed Controllers  
Stack Lights  
Strip Heaters  
Strobe Lights  
Switches

## **T**

Tachometers  
Temperature Controls/Switches  
Timers  
Thermocouples  
Thermocouple Wire  
Thermometers  
Thermowells  
Transducers  
Transmitters  
Tubular Heaters



Timer/Counters

## **U**

Ultrasonic Sensors

## **V**

Valves  
Variable Frequency Drives

## **W**

Weight Transducers

# manufacturers

## Whether it's designing

a custom process control system, or recommending a simple band heater, ISI is the one-stop source for all your heat, sensor, and process control needs.

ISI has established strong relationships with all of the manufacturers listed here. Our customers particularly benefit from our preferred vendor status with companies like Watlow and Omron.



### 3-D Instruments

*gauges*

### ACR Systems Inc.

*data loggers*

### EE Controls

*switches, stack lights, relays*

### A. L. Design

*load cells*

### Alloy Engineering

*thermowells*

### ATC/Tenor

*timers, proximity switches, counters*

### Automation Components, Inc. (ACI)

*humidity sensors*

### Avatar Instruments

*SCR power controls, OEM controls*

### Bucan Electric

*custom band, cartridge, strip, and silicone rubber heaters*

### BriskHeat

*heat trace*

### C R Magnetics

*current indicators*

### Carlo Gavazzi

*sensors, relays, controls, counters, contactors, switches, safety equipment, transmitters*

### Celesco

*position transducers*

### Cerus Industrial

*contactors, overloads, motor starters, circuit breakers, enclosures, variable frequency drives*

### Conrad

*heater jackets, hoses*

### Continental Industries

*solid state relays*

### Dalton Electric

*split core cartridge heaters*

### Danaher Controls

*speed and motion controls*

### Danfoss

*contactors, controls, valves*

### Delevan

*level measurement systems*

### Dwyer Instruments

*equipment for: pressure, flow, air velocity, temperature, valves, test equipment*

### Dynapar

*timers, counters, control systems*

### Eagle Signal

*timers, counters*

### Electro Numerics

*panel meters*

### EuroTherm

*temperature/process controls, indicators, SCR power controls, data recorders, data acquisition*

### Eustis

*thermocouples, RTD's*

### Fast Heat

*process heaters*

### Fluke

*hand held test equipment*

### Fuji Electric

*manual motor starters, contactors, circuit breakers, GFI, pushbuttons*

### Future Designs

*chart recorders, digital data loggers*

### Glo-Quartz

*process heaters*

### Go-Switch

*proximity switches*

### Hanna Instruments

*PH, conductivity, hygrometers*

### HB Controls

*DIN rail SCRs, customer assemblies*

### Harwil Corp.

*fluid flow and liquid level switches*

### Indeeco

*process heaters*

### Inor

*signal conditioners, transmitters*

### Kanthal Corporation

*heater resistance wire*

### Love

*temperature controls*

### Migatron Corp.

*ultrasonic sensors*

### Omron

*PLC's, timers, counters, light curtains, proximity switches, photo proximity switches*

### ONEhalf20 (Dynisco Direct Cross)

*hot melt pressure and temperature sensors*

### Osram Sylvania

*air heaters, radiant heaters*

### Picker Components

*electro-mechanical, solid state relays*

### Precision Digital

*panel meters*

### Raytek

*infrared temperature sensing*

### Reotemp

*thermometers*

### Schmersal

*contactors, motor starters, safety switches*

### Shimpo

*hand-held tachometers and strobe lights*

### Spectre Sensors

*pressure transducers*

### Vaisala

*dew point, barometric, carbon dioxide, humidity sensors*

### Watlow Electric

*process heaters, temperature controls, thermocouples, RTD's, multi-cell heaters, silicon rubber heaters*

### Weiss Instruments

*gauges, thermometers*

# handy reference tools

## ohms law



## engineering constants

1728 Cu. In. = 1 Cu. Ft. = 7.48 Gal

1" = 2.54 Cm

3412 Btu = 1 Kwh = 1.34 Hp Hour

491 Btu/Ft.<sup>2</sup> = 1 Watt Hour/In.<sup>2</sup> = Heat Density

1 Btu/Lb. °F = 1 Gram-Cal./Gram °C = Specific Heat

231 Cu. In. = 1 Gal

1 BTU = 252 Calories = .293 Watt-Hours

1 BTU/Lb. = 1.8 Calories/Gram

1 HP = 745.2 Watts

1 Gal. Water = 8.3 Lbs.

1 Gal. = 231 Cu. In. = 3.785 Liters = 1.227 Cu. Ft.

1 Cu. Ft. = 1728 Cu. In. = .03704 Cu. Yd. = 7.481 Gal.

3 Phase Amps = Total Watts/Volts x 1.73

Wattage varies directly as ratio of voltages squared:

$$W^2 = W^1 \times (E^2/E^1)^2$$

ISI

1-800-468-4969

www.instrumentors.com

**Oregon** (headquarters)  
 507 Main Street  
 Oregon City, OR 97045  
 (503) 656-8605 phone  
 (503) 656-8705 fax

**Washington**  
 (425) 251-1582  
 (425) 251-0923 fax

**Idaho**  
 (208) 319-1776  
 (208) 319-1777 fax

**Utah**  
 (801) 497-9683  
 (801) 497-9879 fax