

# ControlFusion@Waaree

Vol-7 No. 4 • September 2007

## WAAREE NEWS

Dear Friends,

Thank you very much for your overwhelming response & feedback on our last Control Fusion.

In current issue of Control Fusion, we are presenting our complete manufacturing range of RTD's & Thermocouples.

To encourage reading of Control Fusion & benefit our valued customers/suppliers, we request you to send your feedback on our monthly bulletin & get FREE latest edition WAAREE - Instrumentation Hand Book.

Enjoy reading & give your valuable inputs for further improvement.

Regards,

  
**Hitesh Doshi**  
 Chairman & Managing Director

## WAAREE RTD & THERMOCOUPLE

Waaree introduces through this Control Fusion, its range of RTDs and Thermocouples.

The Control Fusion will cover in detail a variety of RTDs and Thermocouples like....

- Plug and Jack type end connections
- Bare inserts
- Bayonet fitting type

- Weld pad type
- Skin type
- With and without protecting tube
- Multipoint type, etc

*In general the reference standards used in manufacturing of the sensors are :*

- RTD : IEC 751 &
- Thermocouple : IEC 584.2

*The different types of sensors manufactured are :*

- RTD : Pt 100, Pt 500, Pt 1000
- Thermocouple : J, K, T, E, R, S, B, N

*The element types manufactured are :*

- Simplex, Duplex, Triplex type.

WAAREE's **RTD & Thermocouple** Catalogue  
 1 Request your **FREE** copy now!  
[cf@waaree.com](mailto:cf@waaree.com)

**RTD 001 Series**  
 CERAMIC RTD ASSEMBLY



**RTD 002 Series**  
 MINERAL INSULATED (M.I.) BARE RTD INSERT



**RTD 003 Series**  
 RTD INSERT WITH TRANSITION JOINT



**RTD 004 Series**  
 INSERT WITH THREADED POT & LEAD WIRES



**RTD 005 Series**  
 RTD INSERT WITH PLUG & JACK CONNECTOR



**RTD 006 Series**  
 RTD INSERT WITH SPRING LOADED TERMINAL BLOCK



**RTD 007 Series**  
 RTD INSERT WITH SS BASE PLATE FOR TEMP. TRANSMITTER MOUNTING



**RTD 008 Series**  
 RTD ASSEMBLY WITH TERMINAL HEAD



**RTD 009 Series**  
 RTD ASSEMBLY WITH NIPPLE EXTENSION



**RTD 010 Series**  
 RTD ASSEMBLY WITH NIPPLE - UNION EXTENSION



**RTD 011 Series**  
 RTD ASSEMBLY WITH NIPPLE-UNION-NIPPLE EXTENSION



**RTD 012 Series**  
 RTD ASSEMBLY WITH FIXED THREADED CONNECTION



**RTD 013 Series**  
 RTD ASSEMBLY WITH ADJUSTABLE THREADED CONNECTION



**RTD 014 Series**  
 RTD ASSEMBLY WITH WELD PAD



**RTD 015 Series**  
 RTD ASSEMBLY WITH PROTECTING TUBE (SCREWED CONNECTION)



**RTD 016 Series**  
 RTD ASSEMBLY WITH PROTECTING TUBE (FLANGED CONNECTION)



**RTD 017 Series**  
 MULTI-POINT RTD ASSEMBLY WITH PROTECTING TUBE



**RTD 018 Series**  
 MULTI-POINT RTD ASSEMBLY WITH PROTECTING TUBE (WITH GUIDE TUBE)



**RTD 019 Series**  
 MULTI-POINT RTD ASSEMBLY WITH PROTECTING TUBE (WITH SPRING LOADING ARRANGEMENT)



**Application :** Refinery, Petrochemical, Power, Nuclear, Fertilizer, Food, Bio-Tech Industries

Waaree manufactures the temperature sensors and can also provide sensors as per special customer requirements / applications.

**LOG ON TODAY**

# RTD & THERMOCOUPLE

**RTD 020 Series**  
MULTI-POINT RTD ASSEMBLY (WITHOUT PROTECTING TUBE)



**RTD 021 Series**  
RTD ASSEMBLY WITH ADJUSTABLE TRI-CLAMP CONNECTION



**RTD 022 Series**  
BEARING TEMPERATURE RTD



**TC 001 Series**  
BEADED THERMOCOUPLE INSERT



**TC 002 Series**  
MINERAL INSULATED (M.I.) BARE THERMOCOUPLE INSERT



**TC 003 Series**  
THERMOCOUPLE INSERT WITH TRANSITION JOINT



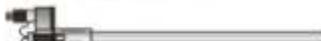
**TC 004 Series**  
THERMOCOUPLE INSERT WITH THREADED POT & LEAD WIRES



**TC 005 Series**  
THERMOCOUPLE INSERT WITH PLUG & JACK CONNECTOR



**TC 006 Series**  
THERMOCOUPLE INSERT WITH SPRING LOADED TERMINAL BLOCK



**TC 007 Series**  
THERMOCOUPLE INSERT WITH SS BASE PLATE FOR TEMP. TRANSMITTER MOUNTING



**TC 008 Series**  
THERMOCOUPLE INSERT WITH SPRING LOADED BAYONET FITTING (STRAIGHT TYPE)



**TC 009 Series**  
THERMOCOUPLE INSERT WITH SPRING LOADED BAYONET FITTING (90° BEND)



**TC 010 Series**  
THERMOCOUPLE INSERT WITH SPRING LOADED BAYONET FITTING (PIN TYPE)



**TC 011 Series**  
THERMOCOUPLE INSERT WITH SS FLEX-HOSE & BAYONET FITTING



**TC 012 Series**  
THERMOCOUPLE ASSEMBLY WITH TERMINAL HEAD



**TC 013 Series**  
THERMOCOUPLE ASSEMBLY WITH NIPPLE EXTENSION



**TC 014 Series**  
THERMOCOUPLE ASSEMBLY WITH NIPPLE - UNION EXTENSION



**TC 015 Series**  
THERMOCOUPLE ASSEMBLY WITH NIPPLE - UNION - NIPPLE EXTENSION



**TC 016 Series**  
THERMOCOUPLE ASSEMBLY WITH FIXED THREADED CONNECTION



**TC 017 Series**  
THERMOCOUPLE ASSEMBLY WITH ADJUSTABLE THREADED CONNECTION



**TC 018 Series**  
THERMOCOUPLE ASSEMBLY WITH WELD PAD



**TC 019 Series**  
THERMOCOUPLE ASSEMBLY WITH INTEGRAL COLLAR



**TC 020 Series**  
THERMOCOUPLE ASSEMBLY WITH KER - 610/718 SINGLE PROTECTING TUBE (FLANGED CONNECTION)



**TC 021 Series**  
THERMOCOUPLE ASSEMBLY WITH KER-610/718 DOUBLE PROTECTING TUBE (FLANGED CONNECTION)



**TC 022 Series**  
THERMOCOUPLE ASSEMBLY WITH KERMATIC - 610/718 SINGLE PROTECTING TUBE (SCREWED CONNECTION)



**TC 023 Series**  
THERMOCOUPLE ASSEMBLY WITH KER-610/718 DOUBLE PROTECTING TUBE (SCREWED CONNECTION)



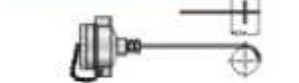
**TC 024 Series**  
WEDGE SHAPED SKIN THERMOCOUPLE ASSEMBLY (STRAIGHT)



**TC 025 Series**  
WEDGE SHAPED SKIN THERMOCOUPLE ASSEMBLY (90° BEND)



**TC 026 Series**  
WEDGE SHAPED SKIN THERMOCOUPLE ASSEMBLY (WRAP AROUND)



**TC 027 Series**  
WEDGE SHAPED SKIN THERMOCOUPLE ASSEMBLY (LOOP AND WRAP AROUND)



**TC 028 Series**  
THERMOCOUPLE ASSEMBLY FOR MOLTEN ALUMINUM TEMP. MEASUREMENT



**TC 029 Series**  
'L' TYPE THERMOCOUPLE ASSEMBLY



**TC 030 Series**  
THERMOCOUPLE ASSEMBLY WITH PROTECTING TUBE (SCREWED CONNECTION)



**TC 031 Series**  
THERMOCOUPLE ASSEMBLY WITH PROTECTING TUBE (FLANGED CONNECTION)



**TC 032 Series**  
MULTI-POINT THERMOCOUPLE ASSEMBLY WITH PROTECTING TUBE



**TC 033 Series**  
MULTI-POINT THERMOCOUPLE ASSEMBLY WITH PROTECTING TUBE (WITH GUIDE TUBE)



**TC 034 Series**  
MULTI-POINT THERMOCOUPLE ASSEMBLY WITH PROTECTING TUBE (WITH SPRING LOADING ARRANGEMENT)



**TC 035 Series**  
MULTI-POINT THERMOCOUPLE ASSEMBLY (WITHOUT PROTECTING TUBE)



**TC 036 Series**  
LEAF TYPE THERMOCOUPLE ASSEMBLY



**TC 037 Series**  
FORK TYPE THERMOCOUPLE ASSEMBLY



**TC 038 Series**  
BEARING TEMPERATURE THERMOCOUPLE



Customised designs also available

**Application :** Refinery, Petrochemical, Power, Nuclear, Fertilizer, Food, Bio-Tech Industries

• Waaree manufactures the temperature sensors and can also provide sensors as per special customer requirements / applications.

OEM Models available

### PRESSURE GAUGE

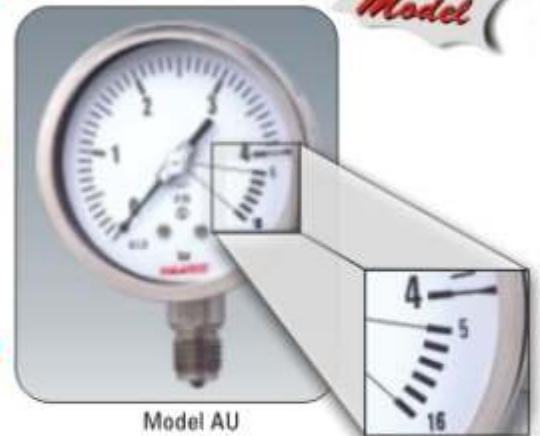
*New Model*

#### Features :

- ▶ Make : WAAREE
- ▶ Nominal Size : 100mm
- ▶ Wetted Parts : AISI SS 316L
- ▶ Accuracy :  $\pm 1.0\%$  for Range scale &  $3\%$  for End Scale  
(End Scale is Covered with Triangle)
- ▶ Range : 0 to 40 kg/cm<sup>2</sup>
- ▶ Execution : Dry/Liquid Filled

WAAREE Pressure Gauge

2



Model AU

with 4 Times Over Pressure

#### Specifications :

- ◆ Stainless Steel case & measuring system
- ◆ Solid front design features baffle wall interposed between the sensing system & the window, and pressure relieving Back for increased safety
- ◆ Socket & Case welded
- ◆ Dry or Liquid Filled
- ◆ Stainless Steel blow off back
- ◆ Standard followed in general EN 837-1

**Application :** Especially suited for occasional short duration over pressure of up to 4 times scale range. Suitable for corrosive environments & gaseous or liquid media that will not obstruct the pressure system

#### Specifications :

- ◆ High accuracy ( $\pm 2\%$  FS)
- ◆ Shock, vibration & over pressure resistance
- ◆ Inexpensive
- ◆ Frictionless movement
- ◆ Range : 0 - 6 mm to 0 - 150 inches of water column



### Magnehelic Differential Pressure Gauge

3



Series 2000

High Accuracy ( $\pm 2\%$  FS)

**Application :** To Measure Fan, Blower Pressure, Clean Rooms, Pharma, HVAC, Filter Resistance, Air, Velocity, Furnace Draft, Pressure drop across orifice, Liquid levels with rubber system

### FLOW SWITCH

Low Cost



Model KF

#### WAAREE Insertion Type Flow Switch

4

Insertion Type

#### Application :

- ▶ Pump protection against dry run
- ▶ Constant monitoring of flow in process plant
- ▶ Booster pump
- ▶ Protects pre heater from overheating
- ▶ Cooling system for bearing compressor

- ▶ Air conditioning system
- ▶ Fire alarm system
- ▶ Heat exchangers, turbines & chillers
- ▶ Controls damper according to flow

#### Features :

- ▶ Rugged design
- ▶ Easy installation & maintenance
- ▶ Multi application
- ▶ Low cost

#### Specifications :

- ◆ Control Type : Paddle
- ◆ Connection : 1" NPT(M)
- ◆ Line Size : 1" to 6"
- ◆ Max Pressure : 13.5bar
- ◆ Temperature : 212°F
- ◆ Switch : SPDT, 220 VAC, 15A

### LEVEL TRANSMITTERS FOR DISTANCE & VOLUME

5

Series 26 W



Submersible

#### Features : KELLER

- ▶ Piezoresistive
- ▶ Diaphragms : SS 316L, hastelloy and platinum (Optional)
- ▶ Submersible
- ▶ For level & high precision pressure measurement

#### Specifications :

- ◆ Pressure Ranges : 2m to 200m
- ◆ Output : 0 to 10 Vdc, 0/4 to 20 mA
- ◆ Linearity : 0.2 % FS Typical / 0.5 % FS Max
- ◆ Op. Range : -45 to 100 °C

6

Series 27 W



High Pressure Range Submersible

#### Features : KELLER

- ▶ Piezoresistive transmitter fully compensated
- ▶ Diaphragms : SS 316L
- ▶ Submersible
- ▶ For level & high precision pressure measurement
- ▶ Absolute, vented gauge or sealed gauge reference

#### Specifications :

- ◆ Pressure Ranges : 2m to 1000m
- ◆ Output : 0 to 10 Vdc, 0/4 to 20 mA
- ◆ Linearity : 0.2 % FS Typical / 0.5 % FS Max
- ◆ Op. Range : -45 to 100 °C
- ◆ IP 68
- ◆ Diameter : 19 mm

**Application :** Level Transmitters for Distance, Level and Volume of Liquids, Slurries and Solids in Process

**PRESSURE TRANSMITTER**



Series MS

**Extremely Versatile**

7

**Magnesense Differential Pressure Transmitter**



**Features :**

- ▶ Monitors Pressure & Air velocity
- ▶ Field selectable ranges
- ▶ LCD display
- ▶ Ability to select square root

- ▶ Two wire square root
- ▶ Power : Two - Wire
- ▶ Range : 0.1", 0.25", 0.5"
- ▶ Output : 4-20mA
- ▶ Accuracy : ±2%

**Application :** To Measure Fan / Blower Pressure, Filter Resistance, Air, Velocity, Furnace Draft, Pressure Drop Across Orifice, Liquid Levels with rubber system

**Features :**

- ▶ NEMA 4X Enclosure (IP66)
- ▶ Accuracy : ± 0.25% FS
- ▶ Range : 0-1" wc to 0 to 100 Psid
- ▶ Output : 4-20 mA
- ▶ LCD Display
- ▶ Suitable for Air & Non-Combustible gases
- ▶ Power : Two wire

**Application :** To Measure Fan, Blower Pressure, Filter Resistance, Air, Velocity, Furnace Draft, Pressure Drop Across Orifice, Liquid Levels with rubber system



**Differential Pressure Transmitter**

8



Series 616W

**Full Accuracy of ±0.25%**

**New**



Series CPE300

**Flush Mount**

9

**Flush Mount Pressure Transmitter**



**Features :**

- ▶ Ranges from 0/+10 Pa to -1000/+1000 Pa
- ▶ Configurable intermediate and centre zero ranges
- ▶ Interchangeable Measuring Sensor (SPI technology)
- ▶ Alternating display of 1 to 3 parameters
- ▶ External transmitter inputs (KIMO Class 200 and 300)
- ▶ 4-20 mA (4 wires) or 0-10V output, RS 232, 2 RCR relays 6A/230 Vac
- ▶ 2 visual (dual color LED) and audible (buzzer - 80 dB) alarms
- ▶ Output diagnostics
- ▶ MODBUS network RS 485 system (optional)

**Application :** To Measure Fan / Blower Pressure, Filter Resistance, Air, Velocity, Furnace Draft, Pressure Drop Across Orifice, Liquid Levels with rubber system



**Pressure Transmitter**

10

**New**



Series CP100

**Differential**

**Features :**

- ▶ Differential pressure transmitter
- ▶ Measuring ranges from 0/+100 Pa to -1000/+2000 mbar
- ▶ Configurable intermediary and central zero ranges
- ▶ 0-10 V or 4-20 mA output, active sensor,
- ▶ Power supply 24 Vac/Vdc (3-4 wires) or 4-20 mA output, passive loop, power supply 18 to 30 Vdc (2 wires)
- ▶ ABS IP 65 housing, with or without display

**Application :** To Measure Fan, Blower Pressure, Filter Resistance, Air, Velocity

## MULTI CHANNEL, SLUDGE BLANKET AND CLARITY CONTROL MONITOR

**DREXELBROOK** **AMETEK**

The CCS4000 controls clarifier and thickener operations in up to four water or wastewater treatment vessels... **Automatically!**

### Features :

- » Control of up to four vessels
- » (2) 4-20 mA outputs per channel
- » (2) control/alarm relays per channel
- » Common alarm and fault relays
- » LCD display with status and help screens
- » Waveform profiles
- » Early Warning For Sludge Level & Rag Layer
- » Prevents wash out, Saves Money
- » Increase Manpower, Efficiency
- » Easy Start up



Series CCS4000™

### Specifications :

#### Controller

- ♦ Power Requirement  
120/240 VAC 50/60Hz
- ♦ Operating Temperature  
-28°F to +140°F (-20°C to +60°C)
- ♦ Housing  
NEMA 4X, 13.3" (338mm)  
W X 11.31" (287mm)  
H X 5.6" (142mm) D
- ♦ Display  
64 X 240 backlit LCD graphic display
- ♦ Transient Protection  
10 amp (on input loop)

- ♦ Analog Output  
(2) 4-20mA / channel user assignable for Sludge Level, Rag Level, Clarity Loss or Signal Quality
- ♦ Relays, all 5A SPDT

#### System

- ♦ Max Points per System  
4
- ♦ Max. Tank Depth  
30 ft. (9.14m)
- ♦ Max Span  
29 ft. (8.84m)
- ♦ Near Zone  
1 ft. (.3m)
- ♦ Dead Zone  
3 inches (76mm) from tank bottom
- ♦ Resolution  
0.1 ft (30mm)
- ♦ Accuracy  
1% of Tank Depth or 1.0" (25mm) whichever is greater Transducer
- ♦ Operating Temperature  
20 to 160 °F (-7 to 71°C)
- ♦ Cable Length  
20 ft. (6.1m) integral to transceiver
- ♦ Coupling  
¾" stainless steel (female)

## PROCESS OXYGEN ANALYSERS



Series 800

Ultra Fast O<sub>2</sub> Measurement

**SYSTECH**  
INSTRUMENTS

12

### Features :

- » Ambient air calibration
- » Calibrated to traceable standards
- » Large, autoranging LED display
- » Ultra fast response
- » Sturdy, reliable construction
- » Unaffected by vibration or position
- » Zirconia Oxide Sensor

### Specifications :

- ♦ Specific to oxygen
- ♦ Insensitive to sample flow rate
- ♦ 19" Rack mount
- ♦ Nema 4X/IP66 water Proof & Weather proof
- ♦ RS 232/485 communication
- ♦ Current & alarm outputs
- ♦ Range : Auto Ranging from 0.1 PPM to 100%

### Application :

Electronics	Metals	Pharmaceutical	Process	General
<ul style="list-style-type: none"> <li>▶ Solder Powder Production</li> <li>▶ Semiconductor Furnaces</li> <li>▶ Gas Quality</li> </ul>	<ul style="list-style-type: none"> <li>▶ Heat Treating / Annealing</li> <li>▶ Steel Production</li> <li>▶ Alloys and Powdered Metals</li> </ul>	<ul style="list-style-type: none"> <li>▶ Inert Packaging</li> <li>▶ Fermentation</li> <li>▶ Vessel Blanketing</li> </ul>	<ul style="list-style-type: none"> <li>▶ Ceramics</li> <li>▶ Contact Lens Manufacturing</li> <li>▶ Food Packaging</li> <li>▶ Glass/Fibre Optics</li> <li>▶ Inert Gas Welding</li> <li>▶ Lamp Manufacturing</li> </ul>	<ul style="list-style-type: none"> <li>▶ Gas Production</li> <li>▶ Controlled Environments</li> <li>▶ Glove Boxes</li> <li>▶ Oxygen Deficiency</li> <li>▶ Research &amp; Development</li> </ul>



## HEAD MOUNTED TEMPERATURE TRANSMITTER

### INOR<sup>®</sup> IPAQ-H 13



2-wire  
Universal  
Programmable

#### Specifications :

IPAQ-H/HX are universal, isolated 2-wire transmitters for temperature and other measurement applications. They combine competitive pricing, functionality and simple configuration.

#### Features :

- » Fully universal, linearized and high-isolation
- » Accepts RTD, T/C, mV and W
- » Full access to all features while in operation
- » NAMUR compliant
- » Consistent sensor break function
- » Simplified loop check-up with calibration output
- » Low sensor isolation detection
- » IPRO, easy-to-use Windows configuration software

**Application :** Process Manufacturing, R & D Industries temperature measurement & control application

#### Specifications :

IPAQ-HPLUS offers outstanding accuracy, stability and high isolation combined with short response time and extended functionality. It is a universal 2-wire transmitter for high-demand temperature and process measurement applications.

#### Features :

- » Fully universal, linearized and highly isolated
- » Accepts RTD, T/C, mV and  $\Omega$
- » Extra high accuracy and stability
- » 40 point linearization - any sensor can be matched
- » High speed update (300 ms)
- » Selectable output limits
- » NAMUR compliant
- » Consistent sensor break function
- » Simplified loop check-up with calibration output

**Application :** Process Manufacturing, R & D Industries temperature measurement & control application

### 14 IPAQ-HPLUS INOR<sup>®</sup>



High-precision  
Programmable  
2-wire

### INOR<sup>™</sup> IPAQ-HLP 15



2 wire  
Programmable  
Transmitter

RTD or Thermocouple is available as per customer requirement

#### Specifications :

IPAQ-HLP is a basic, non-isolated, easy-to-use 2-wire transmitter. Reduced height simplifies mounting in low connection heads. Configuration is made in seconds with the user friendly Windows software, IPAQ-HLP Soft. No external power supply required for configuration. Is programmable for IPAQ-HLP RTD's in 3- and 4-wire connection according to different standards as well as for 11 T/C types.

#### Features :

- » Accepts RTD in 3- and 4-wire connection and 1 T/C types
- » Temperature linear output
- » Sensor error and system (sensor/transmitter) error correction for highest total accuracy
- » Configuration without external power
- » NAMUR compliant
- » Easy wiring, robust terminals and large center hole
- » Rugged design tested for 5 g vibrations R & D
- » IPAQ-HLP Soft, easy-to-use Windows configuration software

**Application :** Process Manufacturing, R & D Industries temperature measurement & control application

All right reserved. Reproduction without prior permission of the publisher is expressly prohibited. The publisher makes every effort to ensure that the Control-Fusion's contents are correct. However, we accept no responsibility for any errors or omissions and accept no responsibility for any loss or damage caused as an effect thereof.

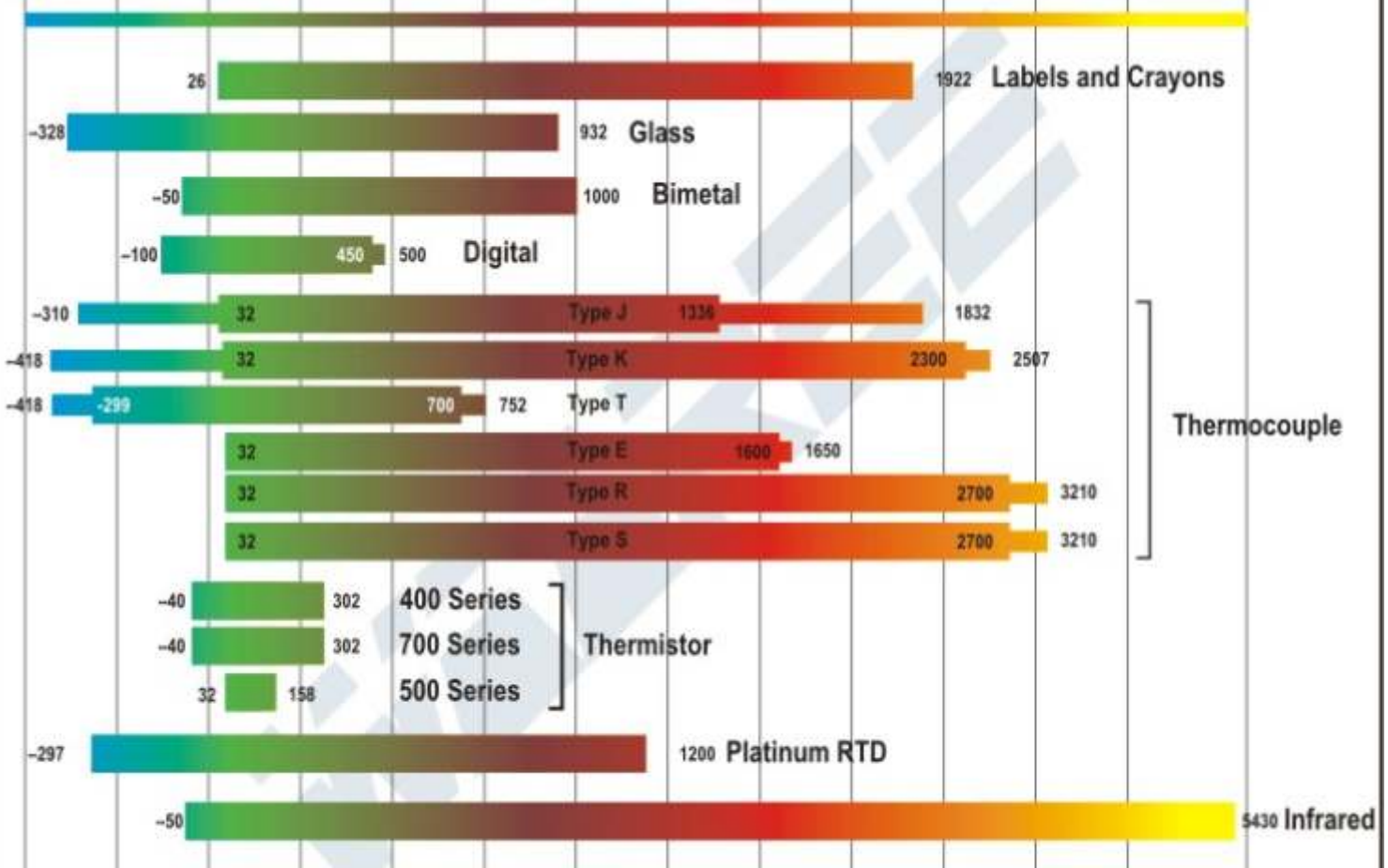
# Technical Article

## Thermocouple, RTD, Thermistor Application



RANGE (°F and C°)

-460°F -250°F 0°F 250°F 500°F 750°F 1000°F 1250°F 1500°F 1750°F 2000°F 3000°F 4000°F 5500°F  
 -273°C -156°C -18°C 121°C 260°C 398°C 537°C 676°C 815°C 954°C 1093°C 1648°C 2204°C 3037°C



Temperature Sensor Comparison Guide

Criteria	Temperature Sensor Attributes		
	Thermocouple	RTD	Thermistor
Cost- OEM Quality	Low	High	Low
Temperature Range	Very wide - 450°F + 4200°F	Wide - 400°F + 1200°F	Short to medium - 100°F + 500°F
Interchangeability	Good	Excellent	Poor to fair
Long-term stability	Poor to fair	Good	Poor
Accuracy	Medium	High	Medium
Repeatability	Poor to fair	Excellent	Fair to Good
Sensitivity (output)	Low	Medium	Very high
Response	Medium to fast	Medium	Medium to fast
Linearity	Fair	Good	Poor
Self heating	No	Very low to low	High
Point (end) sensitive	Excellent	Fair	Good
Lead effect	High	Medium	Low
Size/Packaging	Small to large	Medium to small	Small to medium

**WAAREE AT A GLANCE**

**Waaree**, founded in 1989, offers a broad range of products & services for process control instrumentation & automation. Since inception Waaree is continuously engaged in providing world class instrumentation solutions. Today, it has evolved as an organization with global reach and having multi products & multi business activities. Our quality policies are laid down on the ground of Total Quality Management. To adhere to these standards Waaree continuously upgrades its technology & resources in conformance with the ISO procedures and has been certified by TUV as an ISO 9001:2000 company.

**Our multiple manufacturing facilities offer a wide variety of :**

- Pressure Gauges & Switches
- Temperature Gauges & Thermowells
- Level Indicators & Switches
- Flow Switches
- Instrumentation Tube Fittings
- Needle Valves & Manifolds
- Diaphragm Seals
- RTD's & Thermocouples

**Waaree** is known to be one stop shop for various instrumentation products, thus apart from the manufacturing & service business, the company has associations with multiple world class principals. With their technology and products,

**Waaree caters to its customers also for their requirements of:**

- Digital Gauges for Pressure & Vacuum Measurement
- Piezoresistive as well as Smart Pressure Transmitters
- Instruments for Air Velocity, Moisture, Humidity & Dewpoint Measurement
- Level Monitoring, Controlling, Tank Gauging & Interface Level Solutions

**Waaree offers services for onsite / offsite calibration and repairs of diaphragm seals.**

*The trio of the above makes us clearly the customer's first choice and enables us to cater to the majority of their process instrumentation needs.*



**Our various manufacturing units at  
Dadra (U.T.)  
& Vapi (Gujarat State), INDIA**



CE ISO 9001

IS-3624  


  
NABL  
Accredited Calibration Laboratory

**READER'S FORUM**

**Waaree News Letter "Control Fusion" invites you to share your interesting views, feed-back with your Photograph & Get FREE Waaree's "Instrumentation Hand Book".**  
Mail at : [cf@waaree.com](mailto:cf@waaree.com)

**FREE**

**INSTRUMENTATION  
HAND BOOK - 2<sup>nd</sup> Edition**

For Products Information & Enquiries, Please Contact :

**ControlFusion@Waaree**

Published by : Waaree Corporate Communications

**WAAREE INSTRUMENTS LTD.**, 36, Damji Shamji Industrial Complex, Off Mahakali Caves Road, Andheri (East), Mumbai-400 093.  
Tel.: 0091 22 6696 3030, 2687 4778 • Fax : 0091 22 2687 3613 • E-mail : [cf@waaree.com](mailto:cf@waaree.com) • Website : [www.waaree.com](http://www.waaree.com)

