

*Better Quality, Better Service*

SINCE 1994

TM

**SHIWKÖN**

*....We understand your process*

**Temperature**  
**Pressure**  
**Flow**  
**Level**  
**Weighing**  
**Analytical**  
**Automation**

Manufacturer  
and  
Dealer of  
Process Control  
Instruments



[www.shiwkon.com](http://www.shiwkon.com)

SHIWKÖN, founded in 1994, has established it self as the leading manufacturer & supplier of High Tech instrumentation in the field of Temperature, Pressure, Flow ,Level, Analytical, Automation and other Process Control Instruments .

The key to the success of SHIWKÖN has been its commitments to provide better quality with high standards of committed service support. This has made possible by our strong team of qualified, dedicated & trained engineers. We have more than 3000 satisfied customers all over India and abroad.

## TEMPERATURE

### HIGH TEMPERATURE THERMOCOUPLES

- Type 'R' (Pt. Rh. 13% - Pt.) & Type 'S' (Pt. Rh. 10% - Pt.) are used to measure temperature upto 1400°C/1600°C maximum.
- Type 'B' (Pt. Rh 6% - Pt. Rh 30% or Pt. 18) are for temp. upto 1800°C max. Thermoelement pair is protected by two or three ceramic sheaths of various types depending upon working temperature and environmental conditions.
- Ceramic protection tube Type KER 610 - with 60%, 80%, Al<sub>2</sub>O<sub>3</sub>.
- Type KER 710 - recrystallised - high alumina tube with 99.9% Al<sub>2</sub>O<sub>3</sub> available in 24mm, 20mm, 15mm, 12mm, 10mm, 8mm, 6mm dia.
- Holding tubes made of SS 304/SS 316 of 32mm, 25mm, 20mm dia are used to hold ceramic sheath with head.
- Steatite Ceramic terminal block with nickle plated terminals.
- Die cast Aluminium/S.S. mounting head & adjustable flange.

**Application :**

To measure temperature of firing zone of roller & Tunnel kilns, shuttle kilns, Hot zone of high temperature Furnaces.



### Low Temperature Thermocouple & RTDs

- Thermocouple type 'K' (cromel alumel or Cr.Al or Ni.cr-Ni) are temperature upto 1000°C /1200°C maximum.
- Thermocouple type 'J' (iron-constantan or Fe-K) for temperature upto 800°C.
- Resistance Temperature Detector (RTD) type (PT-10, PT-50, PT-100, PT-200, PT-1000 & CU-53) to measure temperature from -400°C to 600°C.
- All sensors available in metallic protection sheath & Thermowell made of SS 304, SS 316, SS310, HRS 446, inconel 600/800 with insulation by ceramic beads, hand-filled mgo & MI.

**Application :**

For Preheating , Cooling zone of Roller&Tunnel kilns, Chimney, Hydraulic Press, Gasifier, Dryer, vessel, Deep freezer, Oven and Boiler.

### Digital Indicators , Scanners & On-Off Controllers

- Widest range of single/multi channel , linearised Temperature Indicators with micro controller chip with 0.5" , 1" , 2' , & 4" Display
- Digital on-off , Propostional , PD type temperature controllers with single/double set point having 5 Amp , 230 V AC relay output.
- Available in 48 X 96 mm<sup>2</sup> , 72 X 72 mm<sup>2</sup> , 96 X 96 mm<sup>2</sup> , 96 X 192 mm<sup>2</sup> size.
- Multichannel Temp. Scanner with 8 channel , 16 channel , 32 channel inputs
- Separate display for ch. No & temp., auto – manual switch and RS 485/RS 232 communication port.

**Application :**

For displaying temp. of thermocouples, RTDs. Controlling temperature of freezer, oven, vessel and Furnace.



### Instrumentation & Compensating Cable

- Single pair to multipair armored/unarmored cable
- Insulation : PVC/PVC, Fiber glass /FG/SS(Shilded) , FG/FG/Asbestose, Teflon, Silicon Rubber, TRS etc.
- Conductor Size : 3/24 SWG , 3/26 SWG , 7/36, 14/36 SWG etc.
- Heavy duty, rugged and easily available.

**Application :**

Used to connect thermocouples & RTDs with Indicators & Controllers

**Portable Infrared Thermometers & Optical Pyrometers**

- Infrared Thermometer measure the surface temperature of an object. It's optics sense emitted, reflected and transmitted energy which is collected & focused on a detector. It's electronics translate information into a temperature reading which is displayed on the unit.
- Portable Thermometers are available in Different Temp. Range : -30 to 400° c, -20 to 600° c, 0 to 800° c, 0 to 1000° c, 0 to 1500° c, 200 to 1800° c, 600 to 3000° c
- Low cost Disappearing filament type optical pyrometer are available in 700 to 3500° c range.



**Application :**

Use to measure surface temperature of any object, klin temp, Motor winding temp., Electrical Panel Switch Gear Temp.

**Online Infrared Temperature Measuring System**



- Online temperature measuring system consists of Infrared Non Contact Temp. Sensor, object sensor, processing unit & extra large jumbo display
- Special design for fast & accurate temp. measurement of ceramic tiles.
- Infrared Sensor is activated only when object comes under it. Display shows temp. of only object.
- Models : SOT 54 : Temp. Indicating unit with panel.  
SOT 63 : Temp. controlling unit with high & low set point.  
SOT 72 : control panel with buzzer for indication of high & low temp.

**Application :**

For continous surface temperature measurement of object passing on process line

**Digital Autotune PID Controllers**

- Fuzzy Logic PID Controllers with Universal Input (Thermocouple / RTD / 4 to 20 mA)
- Control Output : Servomotor, On-Off Relay, 4 to 20 mA
- Alarm Output : upto two alarm, 230 VAC, 3 Amp Relay
- Additional features : Remote set point, Retransmission output, Serial Communication RS 485/RS 232
- Programmable profile controller with 16 segment Ramp –Sock program
- Size : 48 X 48 mm2, 48 X 96 mm2, 96 X 48 mm2, 96 X 96 mm2



**Application :**

For Precise & fine controlling of temperature, pressure, level, flow and speed of motor through AC Drive

**Computerised Data Logging System**



- Multi channel Data logger in universal fix type input with 8/16/32 channels
- Each Channel can store 3000 readings , 128 KB Capacity
- Parallel centronic port for direct printing
- RS 232 / 485 Serial port with modbus, RTD protocol
- PC Based Data Acquisition Software
- Historical Graph & online trend available.
- 24 Hrs. Format database available for excel report generation.
- Logged data is saved as different database.
- System requirement : PIII, P4, 128/256 MB Ram 5 GB Hard disk Win 98/2000/Xp. 1 serial & parallel port, 1 CD-ROM , Color monitor(800 X 600)

**Application :**

For computerised recording & printing data of Kiln temp. On line Profile recording for oven & muffle furr

**Temperature Gauges**

- Bimetal temp. gauges are economical, rugged, reliable temp. measuring instruments.
- Dial Size : 63 mm(2.5"), 100 mm(4"), 150 mm (6")
- Accuracy : +/- 1.6 %
- Stem : SS 304, SS 316, up to 300 mm
- Mounting : Bottom , Back, & every angle
- Connection : ¼", 3/8" , ½" ,BSP / NPT (Fix or Adj.)
- Temp. Range : -30 to 50 to 500° c
- Thermowells suitable for all temperature gauges

**Application :** Dryer, Air, vessel, Gas & liquid Pipelines, Kiln, and DG sets



**Pressure Transducers & Differential Pressure Transmitters**

- Pressure Transducers are available in range of -2 bar to 2000 bar
- 4 to 20 mA, 1-5 V, 0-10 V with 2 Wire, 3 wire signal output
- Highly Resistant to Pressure spikes & Vibration
- Differential Pressure transmitter with measurement range from -1000 to +2000 mtr
- ABS IP 65 housing with or without display

**Application :**

- Hydraulics & Pneumatics Pump & Compressor , Liquid Level Measurement , Gasifier Pressure measurement.



**Digital Portable Pressure Indicator**

- Digital Manometer have twin inputs for gauges or differential Pressure & negative or positive (Vaccum) Pressure measurement.
- Selectable Pressure Units PSI, mBar , bar, in H2O, in Hg, mm Hg, Torr, Pa, Kpa, mm H2O, cm H2O, Kg/Cm2
- Adjustable Zero Value
- Max, Min Pressure & Hold Function
- Available in 0 to 1400 mm H2O (Accuracy : +/- 0.1 mm)
- Highly Accurate , Rugged instrument for high temperature Air up to 600 C With IP 67 Protective body

**Application :**

- Burner Air Pressure , Burner Gas Pressure , Flue draft & calibration of other Instrument.

**Pressure Gauges**

- Weather Proof Gauges for Corrosive environment
- Glycerin filled Pressure Gauges are ideal for dampening the effect of vibration & Pulsation
- Dial Size : 63 m(2.5") , 100 mm (4") , 150 mm (6") , & 200 mm(8") Accuracy : +/- 1.1 of Full Scale
- Movement : SS 304
- Dial : Aluminium white Painted with 270 degree black scale Marking
- Mounting : Stem ( Bottom ) , Surface , Panel Mounting , Flush panel (Bracket type)
- Connection : 1/4" , 3/8" , 1/2" , BSP/NPT
- Range : Vacuum , Compound & Pressure up to 1400 kg/cm2

**Application :**

- Air compressor, Boiler, Hydraulic Press, Pumps, Air & Gas Prelines, vessel and kiln



**Acrylic and Glass Manometer**

- Acrylic Single Limb Manometer. Std. range : 100, 150, 200, 250, 300 mm H2O
- Acrylic U tube Manometer for Precision Measure of Differential Pressure. Standard Range : 100-0-100, 150-0-150 , 300-0-300 mm H2O
- Acrylic U tube Manometer for easy reading of low pressure Standard Range : 10,12,15,25,50,75,100 mm H2O
- Glass body single limb & U tube manometer. Wall & Stand mounted available

**Application :**

- Kiln, Gasifier, vessel, Boiler & Dryer

**FLOW**

**Electro magnetic Flow Meter**

- Electromagnetic Flow Meter accurately measures the Flow rate of Conducting Liquid or slurries flowing in closed pipes.
- Line Size : 10 NB to 600 NB
- Output: 4 to 20 mA, with +/- 0.5 % Accuracy
- Lining Material: PTFE, Rubber
- Digital Flow Totalizer with Flow rate indicator is available with control panel.

**Application :**

Ball Mill, Slurry, Boiler, Storage tank , water & sewage treatment plants.



**Gas & Air Flow Measurement**

- Orifice Plate & Fluid bar are differential Pressure type Flow Elements with Low maintenance cost
- Integral manifold head allows direct mounting of DP transmitter
- Direct mounting capability up to ANSI 600 #
- Turn-down ratio 8:1
- Accurate & Repeatable
- Differential pressure Transmitter, Flow rate indicator with totalizer are available.

**Application :**

Natural Gas, LNG, Hot & Cold Air in the plant

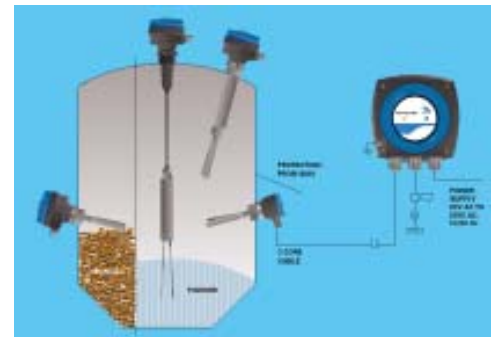
**LEVEL**

**Vibrating Fork Level Switch/Controller**

- Vibrating Fork Level Switch Specially designed for sensing presence of low Density dry powder or fine granular Solids
- Mains Supply: 85 V to 265 VAC OR 18 VDC to 30 V DC
- Output: LED, Relay , Open Collector
- Time Delay : 0 to 30 sec adjustable
- Fork: SS 316 material with max. insertion length 6000 mm
- Housing: IP 67 Cast Alluminium

**Application :**

Storage tanks of clay, granule and powder.



**Capacitance, Conductivity & Float operated Level Transmitter/Switch**

- Transmitter : 2 wire or 3 wire , compact transmitter
- Rod probes up to 3 mtr & cable probes up to 20 mtr
- Explosion proof / flame proof enclosure
- Suitable for high pressure , high temperature or vacuum
- Switch : Cast Alluminium weather proof enclosure
- Power Supply 230 VAC / 24 V DC, External
- Switching Output 1 no. relay one change over @ 5 Amp. Rating
- Adjustable switching delay. Top Mount type

**Application :**

Storage tanks of sticky/non sticky, corrosive/non corrosive liquids, Water treatment plants

**AUTOMATION****PLC, HMI, & SCADA**

- High end Modular PLC with 8-96 local I/O expandable upto 2048. Total program /data memory 64 k, Fast scan time 3ms for 1k instruction
- Extremely cost effective analog I/Os. Modbus, TCP/IP and ethernet IP, DeviceNet, Profibus option. Text Panel & Touch Panel with built in PLC
- Enhanced Touch Panel (HMI) in monochrome, Color, white on blue LCD with 4" to 15" size.
- Remote monitoring and control module
- SCADA Software with multi-channel scanner provides an operator Interface in a window environment for real time supervision, historic trend & alarm management & all the data recorded in form of (Excel & Access)

**Application :**

For the automation of machine & process

**Photocell & Proximity Switch**

- Infrared Photoelectric Sensor consisting Transmitter & Receiver
- Diffused Scan type / Through beam type / retro reflective type sensor
- Metal detecting Proximity Sensor
- Operate on 10-24 VDC power supply, up to 100 mA Output Current

**Application :**

Sensing any nonmetallic object, metal sensing & other functions in Automation

**Variable Frequency Drive (VFD)**

- Superior function of IGBT and high technology of IPM module
- 150% high starting torque at 1 Hz
- Built-in PID control and PLC function
- Built-in RS 232/485 communication interface
- Wide range : 220V class - 0.5 to 3 HP (1Ø/3Ø),  
400V class - 1 HP to 1200 HP (3Ø)
- Cost efficient & flexible installation

**Application :**

For Controlling speed of A.C. Motor by regulating Frequency.

**Digital Counters & Timers**

- Micro controller based design with
- Builtin Battery Back up to store data when power supply is off.
- Hardware keylock to operate instrument only by authorised user.
- Universal Timers with Sec, Min, Hrs. selectable from front keyboard.
- Cyclic timers available for special applications.
- Power Supply : 230 V , 440 V AC
- Size : 96 X 96 mm

**Application :**

Used For Counting of object passing on line, Operating machine in periodic manner.

**ANALYTICAL**

**Product Testing Equipments :**

- Autoclave for crazing test
- Abrasion Testing machine
- Gloss meter
- Reflectance meter
- M.O.R. Testing machine
- Thickness Gauge
- Bench Magnifier
- Vernier Calipers
- Hardness tester (Durometer)
- High Temperature sample plate 300 mm x 300 mm, 300mmx200mm
- Rectangle Bar
- Fillar Gauge
- Hot air Oven
- High Temperature Muffle Furnace
- Hot Plate (Rectangle and Round)
- Laboratory Roller Kiln.



**Raw Material Testing Equipments :**

- Flow cup (viscometer)
- Density cup
- Test sieves
- Infrared Moisture Balance
- Stopwatch
- Rapid Pot mill
- Shieshaker- Rotap, Gyrotory, and Tabletop type
- TDS Meter
- PH Meter
- Lab stirrers

**Chemical Analysis Equipments :**

- Flame Photometer
- Bomb Calorimeter
- Platinum crucible and Silica crucible
- Glassware and Plasticware.
- Whatmen Paper (Filter Paper)
- Spectrophotometer (Color meter)
- Sand bath



**Electronic Weighing Scales**

- Analytical Laboratory Scales from 50 gmsto 600 gms capacity having 1mg to 10mg accuracy
- Table top scales with 1 Kg to 30 Kg capacity having 0.1gm to 5gm accuracy
- Heavy Duty Platform Scales with 100 Kg to 5000 Kg capacity having 5gm to 500gm accuracy
- Industrial Hopper Weighing System with multiple double ended shear beam load cells, micro controller based processing unit and jumbo display
- RS 232/RS 485 communication optional available
- Capacity : 30 MT to 120 MT

### Flue Gas Analyzer

- Includes all basic functions such as combustive efficiency , flue gas loss ,O2, CO2, CO and flue draught , temperature
- Stable readings in 30 sec
- Built in condensate trap , chargeable lion battery
- Ambient CO & O2 dual wall measurement
- Useful instrument for analysis of Flue Gas coming out from chimney of kiln.



### Digital Humidity Measurement Transmitter

- Programmable 2 wire loop powered Humidity transmitter.
- Useful instrument to measure humidity and temperature inside dryer/oven
- Humidity range : 0 to 100 % RH
- Temperature range : -40 to 50° c, -40 to 180° c
- Accuracy : +/- 1 % RH
- User friendly, simple to operate & easy to install

### Digital Portable Calibrators

- Thermocouple calibrators with Dual function capacity. Simulates and measures thermocouple J, K, R & S and mV
- Ideally suitable for testing & calibrating thermocouples and Instruments in the field and control room
- High accuracy of  $\pm 0.1\%$  f.s.  $\pm 1$  digit.
- Large clear display 3S! digit LCD 0.5" high
- Automatic cold junction compensation.
- Universal calibrators with mv, mA, resistance and pressure calibration facility.
- Portable, Rugged, Light weight and handy.



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- IKON TECHNOLOGIES
- SHIWKON MICROWEIGH PRODUCTS