

NK Instruments Pvt. Ltd. excels in the field of manufacturing & supply of

Process Control Instruments & Systems like:

** Pressure & Vacuum - Digital Gauges / Switches / Transmitters.

- * Differential Pressure Gauges / Switches / Transmitters.
- * Temperature Digital Gauges / Switches / Transmitters.
- Temperature Digital Gauges / Switches / Indicators / Indicators / Batchers / Transmitters / Flow Metering Systems.
- * Level Switches / Indicators / Transmitters.
- * Conductivity / TDS Electrodes / Indicators / Controllers / Transmitters.
- * pH Electrodes / Indicators / Transmitters.
- * Vibration Switches.
- * Do2 Electrodes / Indicators / Controllers / Transmitters.
- * Customized Process Control Instruments & Systems.

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Pressure/Vacuum Transmitters & Gauges

Types	Accuracy	Enclosure
0.4 to 300 bar Compact Pressure Transmitter with 51 segment Bargraph indication & 0.3" 7 segment 4 digit Red LED display	0.25% FS	IP 65
0 to 1.6 up to 0 to 2000 bar relative or absolutes - Compact Transmitter (optional Sanitary versions)	0.6% FS	IP65 / IP67
100 mbar to 700 bar - Compact Transmitter with Zero & Span adjustment facility (Optional Sanitary Version)	0.25% FS	IP65
100 mbar to 40 bar - Compact Transmitter (Optional Sanitary Version)	0.4%, 0.2%, 0.1%	IP65 / IP67
-1 to 0 bar up to -1 to 25 bar - Compact Transmitter	0.5% to 1%	IP65 / IP 67
-1 up to 500 bar - Smart Transmitter with HEART (Optional Sanitary, Flanged, Remote Seal etc)	0.04% to 0.25%	IP67
0 to 200 bar, 3.6V Battery operated Digital Pressure Gauge . 8 x1 LCD display. Auto switch o facility. Unit Conversion & Tare facility	0.25% FS	IP 65
0 to 1000 bar externally powered Digital Pressure Gauge. Panel mounted or, wall mounted. Unit selection & Tare facility	0.25 to 1% FS	IP 40, IP 54, IP 65 or, Ex-proof

APPLICATIONS: The Pressure, Vacuum & Compound Transmitters / Transducers are used for various applications, where any of those parameters are to be measured, display their reading or, transfer the read data to the remote unit for control action. These instruments are very commonly used for various applications in Pharma and Food plants for sanitary applications, in Autoclaves, Water Treatment & Waste Water Treatment plants, Low pressure applications like AHU, various chemical and petrochemical processes etc.

APPROVALS : ATEX, EHEDG, FDA, MARINE, GOST, 3A, UL, CCOE, WHG(Leakage & overfill) (Dibt),HART, IP65/IP69.

Pressure Switches & Vacuum Switches

Category	Range	Reapeat Accuracy	Type of Enclosure
	0 to 250mmWc Vacuum	2%	IP54, IP65, IP66, Ex-proof
	0 to 760mmHg Vacuum	2%	IP40, IP54, IP65, IP66, Ex-proof
Fixed Differential	0 to 150 up to 0 to 2500mmWc	1%	IP40, IP54, IP65, IP66, Ex-proof
	-1 to 0.213 up to -1 to 1000 bar	1% or 1.5%	IP54, IP65, IP66, Ex-proof
	0 to 1000 bar	2%	IP65, IP66, Ex-proof
	0 to 760mmHg Vacuum	2%	IP54, IP65, IP66, Ex-proof
Adjustable Differential	0 to 150 up to 0 to 2500mmWc	1%	IP54, IP65, IP66, Ex-proof
	-1 to 1 up to -1 to 700 bar	1% or 1.5%	IP54, IP65, IP66, Ex-proof
Adjustable Differential for Compressor	2 to 12 Bar	2%	IP44
Fixed Stage 0 to 1 up to 0 to 400 bar		2%	IP54, IP65, Ex-proof
Adjustable Stage Differential	0 to 1 up to 0 to 400 bar	2%	IP54, IP65, Ex-proof
Dual Pressure	1 to 400 bar	2%	IP66, Ex-proof
Electronic Pressure Switch	-1 to 2500 bar	2%	IP40, IP65, Intrinsically Safe or Ex-proof
Air Relay Switch	0 to 25 bar	2%	IP66

APPLICATIONS: Pressure Switches are used for Safety Interlock or for pressure Control between 2 Set Points. In applications like Pressure Vessels, Plasma cutting & welding machines, Sterilizers, SPM's, Vacuum base systems, etc. These switches are used as Safety Devices. In applications like Compressors, Fire Fighting Systems, Pressure Chambers, Boilers, Water Treatment Plants, etc.

APPROVALS : CE, ATEX & IECEX by BASEEFA.



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Pressure Difference Switches, Gauges, Gauge / Switches & Transmitters

Types Ranges		Accuracy
Piston type DP Gauge / Switch	0 to 15 mmWc up to 0 to 70 bar	2%
Diaphragm type DP Gauge / Switch	0 to 0.6 mmWc up to 0 to 25 bar	1.6%
Diaphragm type DP Switch	0 to 2 mmWc up to 0 to 25 bar	1%
Compact DP Transmitter	0 to 4 mbar up to 0 to 20 bar	0.5%
Hand Held Pressure & DP Measurement for dry & non aggressive gases	Various ranges from 0 up to 5000 hpa	1%
Digital Di erential Pressure Gauge 0 to 200 bar, 3.6V Battery operated Gauge. 8x1 LCD display auto shut o facility. Unit Conversion & Tare facility	0.25% FS	IP 65
Digital Di erential Pressure Gauge 0 to 1000 bar externally powered Gauge. Panel mounted or, wall mounted. Unit selection & Tare facility	0.25 to 1% FS	IP 40, IP 54, IP 65 or, Ex-proof
0 to 200 bar, 3.6V Battery operated Gauge. 8x1 LCD display auto shut o facility. Unit Conversion & Tare facility	0.25% FS	IP 65
0 to 1000 bar externally powered Gauge. Panel mounted or, wall mounted. Unit selection & Tare facility	0.25 to 1% FS	IP 40, IP 54, IP 65 or, Ex-proof

APPLICATIONS: These DP Instruments are used for various applications, where the pressure di erence between two points are to be measured for the purpose of safety, control action, Indication or, to communicate with another device. These instruments are used for various applications at Filtration Plants, Self Cleaning Filters, AHU's, Dispensing Booths, Across Blowers / Valves / Pumps / Bag Filters / Collector Filters / Pre-Filters / Strainers / Heat Exchangers, ori ce for DP Indications or, Control Level Measurement in pressurized tanks, Reverse ow condition monitoring etc..

APPROVALS : Flameproof to Group IIA, IIB or, IIC CE, ATEX & IECEX by BASEEFA

Temperature Instruments				
Temperature Sensors Type	Specifications	Enclosure		
RTD's Thermocouples, Leaftype Thermocouples, Portable Temperature Indicators	Range : -50 to 2000©	IP 65, Ex-proof		
Head Mounted Transmitter	I/p : RTD, RTD, T/C, mV and R O/p : 4 to 20 mA, Option : HART Accuracy : 0.1C	IP 65, Ex-proof		
Temperature Switch	Range : -10 to 150°C Repeat Accuracy : 1%	IP 66, IP 67		
Digital Temperature Switch	Range: 200 to 400°C Accuracy: 0.2%	IP 65		
Temperature, Relative Humidity & Calculated Dew Point	-40 to 80℃ temperature 0 to 100 RF Humidity	1.5%		
Hand Held temperature Thermometer For Mechanical & Electrical moving assemblies & Transformers	-64 to 1400℃	1.5%		
Digital Temperature Gauge 0 to 400°C, 5 V Battery operated Gauge. 8x1 LCD display auto shut o facility. Integral or, Remote Sensor Probe.	0.5% FS	IP 65		
Digital Temperature Gauge 0 to 400°C externally powered Gauge. Panel mounted or, wall mounted.	0.25 to 1% FS	IP 40, IP 54, IP 65 or, Ex-proof		
0 to 400°C, 5 V Battery operated Gauge. 8x1 LCD display auto shut o facility. Integral or, Remote Sensor Probe.	0.5% FS	IP 65		
0 to 400°C externally powered Gauge. Panel mounted or, wall mounted. APPLICATIONS: Temperature Measurement of the control of	0.25 to 1% FS	IP 40, IP 54, IP 65 or, Ex-proof		

APPLICATIONS: Temperature Measuring & Control Instruments are used to measure Temperature in the Process, to indicate the same in Digital Form or to transfer the same data in 4 to 20mA or, RS485, Temperature Switches are used as safety devices in heat process. Commonly used in Food & Pharmaceuticals Plants.

APPROVALS: ATEX, EHEDG, FDA, MARINE, GOST, 3A, HART, IP65/IP67/IP69



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Flow Sensors, Meters and Transmitters (For Air and Gas)

Types	Range	Options	Accuracy
SWIRL Flow Meter (Temperature & Pre. Compensations)	1.0 to 3600 M3/Hr	Flow Meter Battery Operated Flow Meter with 4-20 mA or, Rs485	1% FSR
Thermal Mass Flow Meter (Inline or, Insertion type)	03 141410/111 10 7,00,000 141410/111	Flow Meter Battery Operated Flow Meter with 4-20 mA or, Rs485 Flow Meter with HART	1% FSR

APPLICATION

These metres are best for air and gas applications were their floor it is low. These are best suitable for volume measurement of coal gas, natural gas, N2, O2, any other gases etc.

Thermal Mass Flow Metres:

Best for bulk transfer of compressed air and various type of gases like chlorine, methane, ethane, ammonia, helium, hydrogen, CO2, N2, argon, biogas etc.

APPROVALS: Flameproof to group IIA, IIB or, IIC.

Flow Sensors, Meters and Transmitters (For Steam)

Types	Range	Options	Accuracy
Vortex Flow Meter		Flow Meter Battery Operated Flow Meter with 4-20 mA or, Rs485 Flow Meter with HART Flow Meter with Data Logger	1% FSR

APPLICATION

In all the industries where steam generators / boilers are used, they use these tyep of meters for measurement of steam consumption. Mainly used for saturated as well as superheated steam (it also has IBR certification). These are commonly used also for compressed air, coal gas, natural gas, chemical líquids etc.

APPROVALS: Flameproof to group IIA, IIB or, IIC. IBR Certification.





type



Flow Switches			
Types	Ranges	Options	
Blind type	0.4 to 48 to 80 LPM	With Terminal Strip, with DIN plug (Adjustable set point or, Fixed set point).	
Indicating type	0.5 to 175 to 100 LPM	With 1 or 2 Reed Switches (Adjustable set point or, Fixed set point)	
Paddle type : Bellow Or, Magnetic operated	3 to 1000 LPM	With 1 or 2 Reed Switches (Adjustable set point or, Fixed set point)	
Paddle type : Bellow or, Magnetic operated	5 to 8000 LPM (adjustable ranges 20 to 1500 LPM)	With 1 or 2 Reed Switches (Adjustable set point or, Fixed set point)	
Indicating Pointer	2 to 60 LPM	With 1 Reed Switch (Adjustable set	

APPLICATIONS: The ow switches are used as safety devices for owing mediums like liquids or gases. If the ow rate of medium crosses set limit, ow switch will operate. hese are commonly used for critical application where ow of Coolants, Lubricants, Fuels is ensured in Burners, Turbines, Engines, Compressors, Cooling Towers, Lubrication Systems, Heating Systems, Heat Exchangers & heavy duty machineries.

Air / Gas Flow switches are used for the similar application like Air cooling systems to ensure the availability of su cient ow of Air

APPROVALS: Flameproof to group IIA, IIB or, IIC

2 to 60 LPM



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Level Gauges, Indicators and Transmitter

Types	Range	Accuracy	Specification
Tubular Glass	0-300 mm up to		Side Mounted Transparent Glass Tube
	0-1500 mm		for liquids
Re ex	150mm up to 1500 mm		Side Mounted Transparent Glass Tube for high pressure application
Pointer type Mechanical Level Gauge	0 to 1.5 meters & 0 to 2.5 meter	_	Top Mounted Mechanical Level Indication with ease in mounting (in PP construction)
Follower Float	0 to 500mm up to 0- 1500 mm	Approx. 2%	Side or, Top mounted Mechanical Indicator having Magnetic Float
Bi-color Magnets	0 to 500mm up to 0- 1500 mm	Approx. 4 mm	Side or, top mounted Mechanical Level Indication for liquids using Rolling Magnets & Magnetic Float
Float & Board	0-2 meters up to 0-25 meters	Approx. 5%	Float operated Mechanical Level Indicator for liquid storage tank
Float Type (Analogue Output)	0-300 mm up to 0-3000 mm	Approx. 3 mm	Magnetic Float Operated Liquid Level Indicator- Using Bypass assembly or, Top Mounting Type in Tanks
Capacitance Type (Analogue Output)	0-150 mm up to 0-15 meters	Approx. 1%	Rod type, or Rope type Sensor for Conductive or non-conductive liquids only.
Potentiometric (Analogue Output)	0-200mm up to 0-3000 mm	Approx 0.5%	Perfectly suitable & acceptable for food and pharma applications
Diaphragm type / Submersible Type (Analogue Output)	Gravity pressure from 0 to 100 mbar up to 0 to 20 bar	Approx. 1%	SS Sensors and PP Cable - suitable for clear Liquids only.
Ultrasonic (analogueOutput)	100-27400 mm	Approx. 1%	Non Contact Level Sensor is not suitable for tanks having Vacuum, Foam, High Temperature & high pressure con gurable Measuring Range. Compact instrument & available with Hygienic design & Con gurable Measuring range.
Radar / Micro Wave (analogueOutput)	300-1000 mm up to 300-3000 mm	Approx. 0.5%	Non Contact Level Sensor is suitable for almost all applications.Compact instrument & available with Hygienic Design & Con gurable Measuring Range

APPLICATIONS: There are 4 typical applications for the Level Measuring Instruments

1) For Level Indication Mechanically, where any Electrical or, battery supply won't be required.

2) For Level Sensing & Digital Indication of available Level in the tank

3) For Level Indication & Transmitter for Remote Indication or, Control application.

Level Measuring Instruments are used very commonly in industries like Chemical & Petrochemical,

Paper & Pulp, Food & Drugs, Water Transport & Beverage Construction Industries, Cement Plants etc.

APPROVALS: IP67, ATEX, 3A, Ex, WHG, UL applicant for FDA & EHEDG



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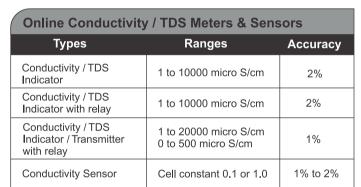


Vibration Switches

Types	Type of Switch	Enclosure	
Vibration switch with Manual reset	SPCO, DPCO, DPDT Silver or, Gold Contact	IP 67 or, Exproof	
Vibration switch with Remote reset	DPST Silver Contacts	IP 67	

APPLICATIONS: Vibration Switches are used for protection of rotating plants reciprocating machinery. It can be set in such a way that it will operate above the normal running level of vibration, by activating alarm or shutting down machine / circuits. Once the switch is operated internal micro-switch remains latched until re-seted. It is used at various applications like forced Drought Cooling Tower Fans, Heat Exchanger Fans, Axial- ow Booster Fans, Industrial Extractor Fans, Ventilation Systems, Deep-well pump sets, Vibrating conveyors, Industrial Grinding Machines, Centrifuges or, Rock Grinding Machines.

APPROVALS: CE, ATEX, RoHS



APPLICATIONS: Conductivity / TDS Meters sense conductivity of owing liquid through the pipe line. The meter indicates conductivity as well as TDS. Very commonly used in Water Treatment Plants, Conductivity Transmitters are temperature compensated, compact, food compatible with hygienic design. It is insensitive to polarizations, adhesion and solids. These are best suitable for food & pharma applications.

APPROVALS: ATEX, EHEDG, FDA, 3A, IP65/IP67/IP69





Online pH Electrode & Meters

Types	Ranges	Accuracy
pH Electrode with Indicator, pH Electrode with Indicator & 2 Relays, pH Electrode with Indicator & Transmitter, pH Electrode with Indicator & RS 485/RS232	0 to 14 pH	0.25% or, 1% FSD

APPLICATION: In many of the Pharma and beverages industries, DM or, WFI water is used where pH has to be monitored as well as controlled. In E uent and Sewage treatment also pH has to be maintained after its processing, where pH Meters are essential.



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Tailor made Instruments & Systems

There are real needs of various instruments for very speci c applications in industries, where customization is required in the instruments or, control systems. Those requirements may not be in a volume. In such a case those type of instruments are not readily available in the market or, with any manufacturers. NK Instruments undertake such jobs also. Few of them are as listed below:

Programmable Process Indicators & Controllers as per speci c requirements, RF communication systems with data encryption facility, Remote Walk By automated reading systems, P1/P2 & DP Indicators, Level Controllers, Level Control systems for number of tanks at a time, Water distribution systems, Square Root Extractors, Multi-Channel Indicators / Controllers, Earth Open Controllers, Loop Powered Indicators, Large Sized Digital Indicators, Scrolling Displays, Data Logger, Data Scanners, Data Acquisition Systems, Programmable Timers, Sequential Timers, Batch Controllers, Dosing Controllers, Bar Graph Indicators, RS 232, to RS 485 Convertors, RS 422 to RS 232 Converters, Temperature Humidity Controllers etc.



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JR MISSION

Become a Buddy of all our clients to enhance their business by providing them Reliable & Cost efffecti ve solutions.

CORE VALUES

Reliable (Follow your commitments)

(Supreme importance for acquiring knowledge & eagerness to apply the same) Resourceful

Respect (Find the jewel in everybody)

Elegance (Graceful presence)

Happy Environment

NK Instruments Pvt. Ltd. do not only provide Process Control Instruments but, the best and reliable technology also to customers, for their industrial process equipment's & systems. NK Instruments Pvt. Ltd., is a resourceful and cost e ective Process Instruments providing company, to ful II and satisfy the clients, within India & countries throughout world. Company covers products for Indication to control process parameters like Pressure, Di erential Pressure, Vacuum, Temperature, Level, Flow, Velocity, Vibration, Conductivity, TDS, pH etc.

Pharmaceutical / Chemical / Petrochemical / Fertilizers Industries, Defense Areas, Dairy / Re neries & Power Plants, Food / Beverage Industries, Oil / Soap / Detergent Industries, Cement Industries, Paper & Pulp Industries, Glass Industries, Automobile Industries, Foundries, Engineering / Process Industries, various R & D Laboratories, Water Treatment & Reverse Osmosis Plants, Chilling Plants, Gas Mixing Systems, Gas Separations systems, Hydraulic & Pneumatic operating systems,

Fire Fighting systems, Filtrations systems, Heating / Cooling / Lubrication Systems, Centrifuges / Boilers / Reactors / Dryers manufacturers, Medical & Hospital Equipment's, Argon & Spot Welding Machines etc.

Our Company has emerged as a formidable force in the market through sheer hard work & ethical business practice.

We believe in team work & strictly adhere to high standard of quality. We also like to maintain long lasting healthy business relationship with all.

The repeat orders from our clients is the real proof for the NK Instruments cater solutions to various type of industries like satisfaction of our services & quality of our products. Apart from the standard range of instruments we provide variety of customized electronic Indicators & Controllers, Control Panels & Automation Solutions, to match clients speci c requirements.

Lots of combination are possible in our existing product range, So please be in touch with us to get the correct product for your specific process application.



NK Instruments Pot. Ltd.

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