

Dairy, Food & Beverage Industry





RTD Probes & Temperature Transmitter

Specification: RTD Probes

- ❖ Pt100/ Pt1000 ❖ Dia: 6 mm
- Process Connection : Triclover & Thread
- Length: up to 100 mm. (Other on Request)
- Weather proof Aluminium Dia. Head IP 65
- ❖ Small weld-in sleeve system M12

Temperature Transmitter

Programming: Wireless with Mobile Application

- Input: RTD (PT100/PT1000)
- Output: 4...20mA Loop Powered
- Power supply : operating range 6-32 Vdc
- Connection: Screw pins Fixing: On DIN Clip/ B head 3600 points data logger
- **Application:** Hygienic Process/ Utility Process

Infrared Temperature Sensor (Pyrometer)

Specification:

- Choice of temperature ranges from -20°C to 500°C
- Durable, robust stainless steel 316 housing
- Output: 4-20 mA, Type K or J thermocouple, or 0-50 mV
- Fast response with high stability
 Sealed to IP65

Application:

- ❖ To Measure Chocolate Temperature before the Mould
- To Measure the Temperature of Toffee Webs as they Leave Cooling Drums
- Measure the Temperature of Roaster System

Hygienic Pressure Transmitter

Specification:

- Piezoresistive pressure sensor design
- Measuring ranges: -1 bar to 40 bar
- Output: 4...20mA, 0...10V, 0...5V and others
- ❖ Accuracy: ±0.25%FSO or ± 0.5%FSO
- Calibrated and temperature compensated
- Flush diaphragm construction
- Variety of pressure & electrical connections
- Operating temperature range: -20 to 200 °C

Application: For Hygienic Process

Pressure Transmitter & Digital Pressure Switch

Specification:

- Measuring ranges from 100mbar to 600bar
- Absolute, gauge and sealed gauge
- Accuracy: ±0.25%FSO or ± 0.5%FSO
- Calibrated and temperature compensated
- Stainless steel construction
- Piezoresistive pressure sensor design
- Variety of pressure & electrical connections
- Output 4...20mA, 0...10V, 0...5V and others

Application:

- Process Control Systems/ Utility
- ❖ Refrigeration and HVAC Controls ❖ Pumps and Compressors

Digital Draft Pressure Transmitter

Specification:

- Range: <u>+</u> 5 mmWC/ 0....250 mmWC/ 0...500 mmWC (other on request)
- Supply voltage: 18 ... 30 VAC / VDC
- ❖ Output: 4 ... 20 mA or 0 ... 10 V, 3 wire
- With switching output
- Linearity: ≤ ±0.5% FS, min. ±1 Pa
- ❖ Working temperature : -20 ... 70°C
- Protection class: IP65
- Display : Optional
- Process connection P1 and P2: Stainless steel -Hose pipe connection with 4 / 6 mm outer diameter



Draft Pressure Measurement of Dryer, ID/FD Fan

Capacitive Type Level Switch

Specification:

- Process connection: G1/2" hygienic
- Output signal: PNP, NPN or Push-Pull, switchable
- Response time : <0,2sec
- Supply voltage: Ub=24V (12...32VDC)
- Electrical connection : M12 connector 5pin
- Process temperature: 0°C...100°C /max 130°C (<1h)</p>
- ❖ Process pressure : max 10 bar ❖ LED Indication

Application:

- Level detection in vessels or pipes
- Level detection of syrup and fruit concentrate

Compact Liquid Vibrating Fork Level Switch

Specification:

- ❖ Industrial power supply (15 to 80 VDC or 15 to 260 VAC).
- Low power consumption.
- No calibration required.
- Threaded & hygienic process connection.
- Suitable for side as well as top mounting.
- ❖ Minimum 1/2" process connections
- High pressure up-to 15 bar
- High temperature up-to 150 °C available

Applications:

Used as a Full, Empty & Demand Alarm in Fluid Containers, Tanks Containing Liquids of Various Types, Including Milk & Milk Products, Edible Oil, Fuel Oil, Lube Oil, Brewery etc.

Conductivity Level Switch

Specification:

- Electrodes can be shortened independently
- Medium-affected components are made of stainless steel
- ❖ Material Nr. 1.4404 / HALAR® 3404DA-coating
- Thread G 1", elastomer-free seal system
- Protection class IP69K
- Operating pressure max. 10 bar
- CIP- / SIP cleaning 140°C, 30 min
- Permissible substance temperature 0...100°C
- Stainless steel terminal head material Nr. 1.4305

Application:

❖ Level Measurement for Chemical Storage Vessel in CIP Process

Guidedwave Radar Level Transmitter

Specification:

- * Robust design for a longer service life
- ❖ With steel terminal head material Nr. 1.4305
- Connection: M12 plug-in connection, 5-pole
- ❖ Thread G 1", elastomer-free seal system Supply voltage: 12V DC...30V DC
- Output signal: 4mA...20mA / 0V...10V
- Response time: <400 ms
- Protection class: IP69K
- Process temperature: -20...+150°C

Application

Fill level measurement in vessels

Ultrasonic Level Transmitter

Specification:

- Compact Size
- User Friendly menus
- Temperature Compensation
- Two-wire loop-powered
- Simple Installation & Maintenance
- * RS232, RS485, Modbus Various output types
- LCD display **Applications:**
- ❖ Sedimentation Tank ❖ Sewage Treatment ❖ FO Tank Level













Capacitance Level Transmitter

Specification:

- Compact size
- Rigid rod/flexible rope versions
- Wide range industrial dc power supply (15 60 VDC)
- Loop powered device (two wire)
- ❖ No potentiometers hassle free calibration
- Various customized process connections available
- * Remote electronics version available on request
- Process temperature max. 200 °C
- Suitable for corrosive liquids

Application:

Level Measurement for Chemical Storage Vessel in CIP Process

Hydrostatic Continuous Level Transmitter

Specification:

- Compact size
- Wide range industrial dc power supply (12 to 36 VDC).
- * Loop powered device (2 wire).
- No calibration required.
- Customized process connections
- ❖ Accuracy +/- 0.25% of FS.
- Suitable for corrosive liquids
- Process pressure max. 200 mH2O
- Process temperature max. 80 °c.



- * Pressure Sensor for Hydrostatic Level Measurement at Bore Well, Well etc.
- ❖ Deep Submersible Liquid Level Measurements ❖ Ice Silo Level Measurement

Vibrating Fork Level Switch for Solid

Specification:

- * Enclosure: Aluminium non-Hazardous IP-66/68
- Process Temperature : upto 200°C
- Sensing surface material: SS-316
- Process Connection : Customize
- Process Connection material: SS-316
- Universal supply 15-60VDC & 15-260VAC
- ❖ Output : 1 x DPDT potential-free relay output
- Switching : Single-point level switching
- Relay rating: 5A 230VAC, 5A 24VDC for resistive loads
- Probe length: 125 2000 mm (other on request)

Application

Level Measurement of Free Flowing Powders and Granules (size max. 10mm) in Hopper, Silo & Vessel

Milk Silo Level Transmitter

Specification:

- Digital input for zero point adjustment
- Nominal pressure ranges up to 40 bar
- Integrated control + indicator display optional
- ❖ Freely adjustable as tank level indicator & linearisation up to 30 support points
- Very quick compensation of temperature jump
- Turndown 4:1
- Accuracy: 0,1 % of adjusted measuring value
- Protection class up to IP 69 K

Application:

High precision hydrostatic level Measurement in vessels

Water Level Switch/ Transmitter

Specification:

- Ambient temperature : -20°C to +85°C
- * Range : As per tank height upto 1 meter
- Tube connection or Threaded connection (CuZn40 = brass, V2A = stainless steel)
- Diaphragm material : NBR
- Switch type : SPDT
- Output signal: 4 ... 20 mA
- Electrical rating: max. 6 (1.5) A / 250 VAC
- Electrical connection: Tab terminal 6.3 mm x 0.8 mm
- Protection Class: IP65

Application:

Liquid Level Monitoring



- Extremely fast response times
- Measuring ranges freely configurable
- ❖ Process connection : G1"/ 2" SMS Connection
- * Accuracy: 2% of measuring range final value
- ❖ Supply voltage: Ub=24V ±20% (18...32VDC)
- Output signal: 2x4-20 mA
- Protection category: IP69K
- Process Temperature: 20...100°C / 150°C (1h)

Application:

- Controlling of CIP processes
- * Alkali and acid concentration measurement

Turbidity sensors

Specification:

- Compact design with integrated amplifier and touch display
- * %-turbidity or custom defined unit
- Durable sapphire lens
- Hygienic Design, CIP/SIP-capable
- LED light source guarantees a durable and stable signal
- Easy parameterization via display or software EXpert

Application:

- CIP return detection of product residues and TS Recovery
- CIP Return line for Final Rinse Water Recovery
- Product Transfer lines for Product Loss Recovery
- Monitoring product inflows/water inflows such as Vapour water, condensate, and cooling water Circuit Return Line
- ❖ Precise Phase Separation ❖ Filter Monitoring ❖ Control of Separators
- Condensate of whey (COW) water monitoring

Brix Meter

Specification:

- ❖ Refractive Index range: Full range, nD=1.3200...1.5300 (=definition to 0...100%wt)
- Output units: Brix/ Conc% / g/cm3 / refractive index unit RIU
- Measurement precision: ±0.025 Brix/%wt Accuracy: ±0.0002 RIU
- Speed of response : 1 sec. undamped
- Automatic Temperature compensation
- ❖ Hygienic design ❖ Process pressure : 9-55 bar
- Process temperature : -40°C ...100°C continuous & 130 °C CIP and SIP sequences
- Sensor protection class: IP67, Nema 4X
- Power Supply: 24 VDC Output: 2 x 4.....20 mA

Application:

CERTIFIED

- Dairy Evaporators and Spray Dryers
- Whey Protein Concentrate Membrane Filtration Systems
- Lactose Sugar Concentration Measurement
- ❖ Inline TS Measurement
 ❖ Sugar Preparation Skid Sodas & soft drinks filling lines and sugar dissolving

Water Quality Monitoring System (pH, Conductivity,

Measurement) with the Cloud Connect

- High quality Zirkon® junction for
- Electrode Material: 2 Gold rings
- Process Connection: M12 Plug

Measuring Parameter

- Conductivity: Up to 2.000, 20.00, 200.0 mS/cm
- Free Chlorine : Up to 1000 µg/l; up to 5,00; 10,00; 20,00 mg/l
- ❖ Total Chlorine : Up 0-1000 µg/l ; 5,00 ; 10,00 ; 20,00 mg/l

Application:

Water Process Engineering











Specification:

- Automatic cleaning by ASR® possible
- Low maintenance due to gel filling
- Stable zeropoint
- reliable measurement results
- Max. Pressure: < 10 bar at 20 °C</p>
- Connect with the Kuntze Cloud Connect® service

- ❖ pH:0.. 14.00 pH
- * Turbidity 0-10 NTU



Liquid Analyzer - pH/ ORP Transmitter

Specification:

- 48 x 96 mm, panel mounting type
- Drip-proof/Dust-proof IP66 (for front panel only)
- Power supply: 100 to 240 VAC (standard)
- 2-points Contact output (standard)
- Proportional control, max. 4 points of relay contact
- Various settings & calibration via software

Application:

- Water Treatment
- ❖ low Iconic Boiler Feed Water ❖ ETP





Conductivity / TDS Meter

Specification:

- Measuring range : 0 μS/cm 15000 μS/cm
- ❖ Output signal: Digital PNP or analogue output 4-20 mA
- Protection category: IP68
- CIP- / SIP cleaning : 0...+150°C (30 min)
- Accuracy: 5% of measurement value
- Integrated temperature compensation
- Response time < 0.5s
- ❖ Supply voltage Ub = 24 V +/- 20% (18...32 VDC)

Application:

Water & Waste Water Process Engineering



Broken Bag Detector & Stack Loss Measurement

Specification:

- Probe : tribo-electric probe consisting of rod and head
- Probe rod : electrically isolated from housing
- Immersion depth: 500 mm
- ❖ Measuring range of dust : 0...250 mg/m³ dust
- Analogue output : 4...20 mA, 2-wire transmitter
- Galvanically isolated to device ground
- * Power supply: 24 VDC (max. +25%, -10%)
- Exhaust gas temperature : max. 260°C
- Process connection: welding sleeve with Tri-Clamp fastener
- Housing: IP 65, protection class 1

Application:

- Broken Bag Leak Detector
- Stack Powder Loss Measurement
- Bag Filter Condition Monitoring

Air Flow & Velocity Transmitter

Specification:

- ❖ Range : 0 ... 1000 Pa
- Multiple field selectable measurement
- * Measuring Units:
 - Volume flow: m3/s, m3/h, cfm, l/s
 - Velocity : m/s, ft./min
 - Pressure : Pa, inWC, mmWC, kPa, mbar, psi
- With Autozero function
- Supply Voltage: 24 VAC or VDC, ±10 %
- ❖ Output: 4 ... 20 mA or 0 ... 10 V, 3-wire
- Accuracy (from applied pressure): 1% Protection standard: IP54
- Display : 2-line LCD display
- ❖ Length: 100 mm to 450 mm







❖ Air Flow Measurement in Duct ❖ Dryer in feed Flow

Air Velocity Transmitter with S - Type Pitot Tube

Specification:

- * Range : 0 ... 1 KPa (10 mbar) ❖ Velocity range: 0 ... 30 m/s
- Supply voltage: 18 ... 30 VAC / VDC
- ❖ Output : 4 ... 20 mA or 0 ... 10 V, 3-wire
- With switching output
- Display: LED display, red, 4 digits
- ❖ Accuracy: ± 1% FS, min. ± 1 Pa
- Protection class: IP65

Accessories:

- S-type pitot tube (Stainless steel)
- ❖ Length: 500 mm
 ❖ OD: 6 mm
- Mounting type: cleat or flange

Application: Duct Velocity Measurement



Digital Process Indicator

Specification:

- Galvanic Isolation 1.5 kV
- Sampling Time 125 ms
- 3 Points Alarm output
- User-Friendly Operation and Configuration
- Password Protection for Configuration
- IP66 Protection Class for Front Flush
- Standard Retransmission Output (4-20 mA, 12000-bit Resolution)
- Lower Power Consumption (8VA), Longer Life of Electronics Modules
- Multi-input: total 18 types of input

PID Controller

Specification:

- Convenient Initial setting mode!
- AT on startup function!
- Simplified Program control!
- Simplified converter function!
- A variety of Event Input/Output functions!
- Large, Easy-to-view, 5-digit PV, SV Displays! Compact, 60 mm-deep control panel interior!
- Drip-proof/Dust-proof IP 66
- Control O/P: Relay contact 1a,Non-contact voltage(for SSR drive), DC
- Multi-input : Total 18 types of input
- Sampling Time 125 ms Password Protection for Configuration

Smart Vibration Sensor

Specification:

- Vibration monitoring sensor
- Housing material and fastening: 1.4305 (V2A) with fastening
- M8 x 8; pitch 1.25 mm (standard)
- . Output: 4-20 mA, 3 wire
- Measuring range: 0 –25mm/s rms (other on request)
- Electrical connection: M12 connector
- ❖ Measuring head temperature : -40°C ... +85°C
- Protection class: IP 66/67 frequency range: 10 1,000 Hz
- ❖ IO link also available on request

Application : Fan & Bearing Status

Pumps, Centrifuges, Temperature Measurement

Manually Operated Retractable Probe Housing For pH Electrode

Specification:

- * Material: Stainless steel 1.4404 / 316L
- Sealing material: EPDM/FDA/USP VI
- ❖ Process Connection: TriClamp 1-1,5" (OD Ø50.5mm)
- Cleaning Connection: G 1/8" female thread
- Automatic locking system with indicators for measurement- and service position
- Automatic safety lock while sensor is removed
- Drive unit free of maintenance
- Easy retrofit to pneumatic drive possible

Application:

- ❖ For all kind of Ø12-225mm sensors or Ø12-280mm liquid filled sensors with thread PG13.5
- Hygienic applications
- Requirement of sensor replacement under process conditions















