



#### **HEAD TEMPERATURE SENSORS**

- Type of sensing element:
  - Resistance Pt 100/3850, Pt 500/3850, Pt 1000/3850, Ni 1000/5000, Ni 1000/6180, Ni 10000/5000, Ni 10000/6180, Ni 2226 = T1, Ni 891, NTC, PTC Thermocouple – TCK, TCJ, TCT; Others – KTY, SMT 160, DALLAS, TSic etc.
- Maximum measuring range: -200 °C to 600 °C (custom manufactured sensors above the stated parameters)
- Ingress protection: up to IP 68 (according the sensor type)
- Output signal: resistance, current, voltage and digital
- Stem length: standardly 70 to 240 mm, custom manufactured from 40 mm to ... "according to customer's requirement"
- Stem material: stainless steel DIN 1.4301, DIN 1.4571, DIN 1.4404 and others "according to customer's requirement"
- Accessories: thermowells, welded-on pieces, reductions, brackets, flanges, clamps, connectors

### **CONTACT** (series S 140, S 150, S 190)







## **↓ INTERIOR USE** (series S 100)





#### **↓** OUTDOOR USE (series S 110, K 110)



**VIMMERSION (Ex)** (series S 120, K 120, S 160, K 160, S 180, S MINI)











**₩ITH CONNECTOR** (TR 021, TR 021A, TR 021F, TR 021V, TR 02)







## TEMPERATURE PROBES



- Design: contact, stick in, ambient temperature probe up to 6 measuring points
- Type of sensing element: Resistance: Pt 100/3850, Pt 500/3850, Pt 1000/3850, Ni 1000/5000, Ni 1000/6180, Ni 10000/5000, Ni 10000/6180, Ni 2226 = T1, NTC, Ni 891; Thermocouple: TCK, TCJ, TCT
- Maximum range: -50 °C to 300 °C Ingress protection: up to IP 68 (according to probe type)
- Case diameter: from 1.5 mm... "according to customer's requirement" Case material: stainless steel DIN 1.4301
- Handle material: silicone, teflon, polypropylene, LCP, PEEK Cables: silicone, teflon, PVC

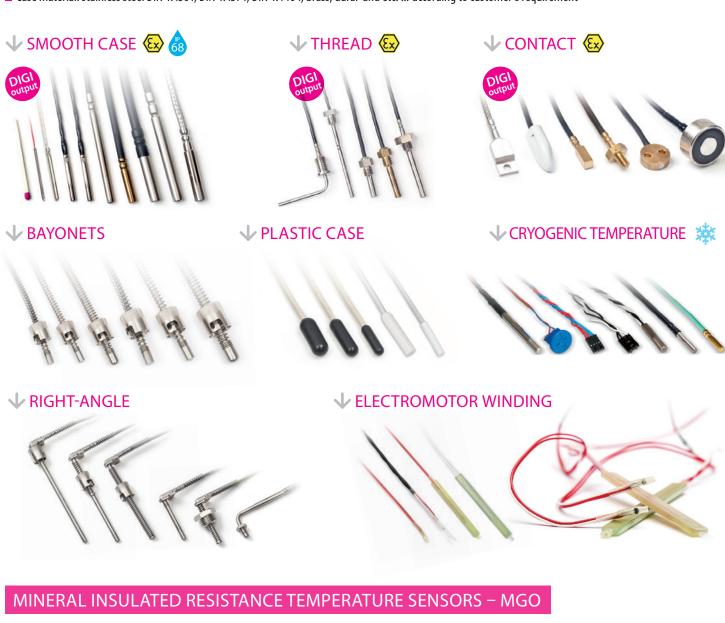


## CABLE TEMPERATURE SENSORS

- Type of sensing element:

  Resistance Pt 100/3850, Pt 500/3850, Pt 1000/3850, Ni 1000/5000, Ni 1000/6180, Ni 10000/5000, Ni 10000/6180, Ni 2226 = T1, Ni 891, NTC, PTC

  Thermocouple TCK, TCJ, TCT; Others KTY, SMT 160, DALLAS, TSic etc.
- Maximum measuring range: -200 °C to 450 °C (custom manufactured sensors above the stated parameters)
   Connection: 2wire, 3wire, 4wire
- Ingress protection: up to IP 68 (according the sensor type) Case diameter: from 1,5 mm ..."according to customer's requirement"
- Threads: standardly G 1/2", G 1/4", M 10 x 1, M 10 x 1,5 and others based on application Cables: PVC, silicone, Teflon, fibreglass insulation and others
- Case material: stainless steel DIN 1.4301, DIN 1.4571, DIN 1.4404, brass, dural and etc. ... "according to customer's requirement"



■ Temperature range up to 600 °C ■ Case diameter from 1 mm ■ Type of sensing element: Pt 100/3850, Pt 500/3850, Pt 1000/3850 ■ Shapeable



#### THERMOCOUPLE TEMPERATURE SENSORS

■ Temperature range up to 1 200 °C ■ Case diameter from 1 mm ■ Types: TCK, TCJ, TCT, TCS etc. ■ Shapeable

↓ MINERAL INSULATED ↓ WITH BAYONET ↓ WITH CONNECTOR ↓ WITH CONNECTION HEAD



### PAIRED TEMPERATURE SENSORS

- Type of sensing element: Pt 100/3850, Pt 500/3850, Pt 1000/3850 Compliance with standards: EN 60751, EN 1434; MID Certification Maximum temperature range: 0 °C to 180 °C
- Compatibility with measuring instruments of the following companies: SIEMENS, LADIS+GYR, KAMPSTRUP, ITRON, COMAC CAL, CODEA, SENSUS METERING and others
- Design variability: mounting into thermowell, direct immersion into the piping



### **BIMETALLIC TEMPERATURE SENSORS AND SWITCHES**

#### Sensors

■ Max. measuring range: -30 °C to 200 °C ■ Measuring system: bimetallic ■ Design: into thermowell, contact

#### **Switches**

■ Switch off / Switch on temperature from 70 to 180 °C ■ Design: with a smooth stem, with a thread ■ Contact design: normally open / normally closed

# **TEMPERATURE SWITCHES**

- Design: on a DIN bar, on a console, for interiors and exteriors, for ducts, with an external probe, with or without a display, with an adjustable temperature/with a fixed temperature
- Input: Pt 100/3850, Pt 1000/3850, Ni 1000/6180, TCK Output: relay, RS 485
- Maximum measuring range: -50 °C to 400 °C Hysteresis: adjustable
- Power supply: 12/24 V or 230 V/50 Hz (according to the sensor type)



# **CUSTOM MADE**

#### Complete service includes

- Thorough analysis of the application Production and delivery of samples
- Technical support and consulting design of sensor which you need, personal approach
- Price quotation is calculated on the base of required quantity
- Production of sensors including control of every sensor, for every piece
- Delivery date between 7 to 21 days Express production and delivery within possibilities of technological process

## **CONVERTERS**

#### Temperature – Current / Temp. – Voltage / Temp. – RS 485 / Temp. – CAN protocol

- Output: 4 to 20 mA, 0 to 10 V, RS 485, CAN protocol Power supply: 11 to 30 V<sub>DC</sub> (according type)
- Standard measuring range: -30 °C to 60 °C, 0 °C to 35 °C, 0 °C to 100 °C, 0 °C to 150 °C, 0 °C to 200 °C, 0 °C to 400 °C; possibility of custom setting of the measuring range
- Design: on a DIN bar, wall-mounted version



#### TEMPERATURE AND RELATIVE HUMIDITY SENSORS

- Design: for interiors and exteriors, air-conditioning ducts, with an external probe
- Output: two galvanic separated signals 4 to 20 mA, 0 to 10 V, RS 485, CAN protocol, I2C
- Measuring range of relative humidity: 0 to 100 % RH Maximum measuring temperature range: -30 °C to 125 °C according to the sensor type "S" head design is in compliance with the temperature sensor, designed without mobile parts, high sensitivity Option with display



## COMBINED TEMPERATURE, RELATIVE HUMIDITY AND CO<sub>2</sub> SENSORS









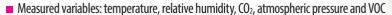


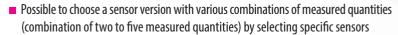


temperature humidity

 $CO_2$ 

m prossure V







■ Design: for interiors and exteriors, air-conditioning ducts, with an external probe



## **WIRELESS RADIO SENSORS**

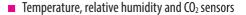












Sensor protection up to IP 65 depending on the sensor type

■ Communication is transmitted using the unlicensed 868 MHz band

■ Integration into various SCADA systems using the Modbus RTU protocol (RS485)



### FLOW SENSORS AND FLOW SWITCHES OF LIQUIDS

- Liquid output: 4 to 20 mA, normally open contact
- Reccomended measuring range: 2 to 5 m/s, 2 to 10 m/s, 2 to 20 m/s
- Design: for explosive environments



## **FLOOD DETECTORS**

- Design: wall-mounted version or for horizontal surface, with external probe
- Output: the relay output or the output terminal of an open colector type "S" head design



## INDUCTIVE SWITCHES AND OPTICAL SENSORS

#### **→** INDUCTIVE PROXIMITY SWITCHES

#### Application:

- Rotation control Press work pressence
- Revolutions Chain sag Linear motion
- Products on a conveyor Apperture
- Switch position Material thickness
- Pressure Door position Rotary motion
- Object presence Turbine revolutions
- Liquid level etc.

#### **→** OPTICAL LEVEL SENSORS

#### Suitable for:

- Food Processing Industry (dairies, production of alcoholic and non-alcoholic beverages, breweries)
- Chemical and Petrochemical industry
- Medical and Pharmaceutical industry



## **ACCESSORIES**

■ Thermowells, welded-on pieces, reducers, movable fittings, holders, coonectors, bayonet adapters, thermal conductive paste...





























