

PRIGNITZ Mikrosystemtechnik is a global manufacturer of sensors from Germany. We develop, manufacture, and sell pressure sensors, temperature transmitters, and level probes with very high added value "from chip to calibrated transmitter". Based on our R&D, we have created a series of unique and rugged pressure and temperature transducers for Hazardous areas. In addition to its rugged construction and a good price- to- performance ratio our products will be the solution for pressure measurement for a very wide variety of applications.



Examples of products

## 1. INTRINSICALLY SAFE TRANSDUCERS:

- **STANDARD PRESSURE TRANSDUCERS: PMP-S111-EXI, PMP-S122-EXI, PMP-S131-EXI**
- **HIGH ACCURACY PRESSURE TRANSDUCER: PMP-C111-EXI, PMP-C122-EXI, PMP-C131-EXI**



**PRESSURE**

### ADVANTAGES:

- Hi- strength stainless steel construction no silicone oil, no internal O-Rings (above 4 bar)
- Wide operating temperature range
- Low static and thermal errors
- Compatible with a wide range of liquids and gases
- High grade of EMI/RFI protection grade



### SUITABLE HAZARDOUS AREAS AND CONDITIONS:

- **metallic connectors**

**US:** Class I, Zone 0 AEx ia IIC T4 Ga, Class I, Division 1, Groups A, B, C, D T4

**CAN:** Ex ia IIC T4 Ga IS Class I, Division 1, Groups A, B, C, D T4

- **for other plugs and cables:**

**US:** Class I, Zone 1 AEx ia IIC T4 Gb, Class I, Division 1, Groups A, B, C, D T4

**CAN:** Ex ia IIC T4 Gb, IS Class I, Division 1, Groups A, B, C, D T4

#### Rated for:

**Class 2258 04** PROCESS CONTROL EQUIPMENT (for hazardous Canadian locations)

**Class 2258 84** PROCESS CONTROL EQUIPMENT (for hazardous locations- certified to US standards)

### SPECIAL FEATURE FOR PMP-C111-Exi, PMP-C122-Exi, PMP-C131-Exi:

- Better accuracy:  $\leq 0,25\%$  FSO
- Signal downscaling on request by PC-software



- With flange plug: II 1G Ex ia IIC T4 Ga

- Other plugs: II 1G Ex ia IIB T4 Ga or II 2G Ex ia IIC T4 Gb



**LEVEL**

- **HYDROSTATIC LEVEL PRESSURE TRANSDUCERS: PML-S111-EXI, PML-S131-EXI**

### ADVANTAGES:

- Wide variety of level ranges and operating temperature range
- Low static and thermal errors
- Compatible with a wide range of liquids and gases
- High grade of EMI/RFI protection grade



### SUITABLE HAZARDOUS AREAS AND CONDITIONS:

**US:** Class I, Division 1, Groups A, B, C, D T4. Class I, Zone 1 AEx ia IIC T4 Gb

Class I, Division 1, Groups C and D T4. Class I, Zone 0 AEx ia IIB T4 Ga

**CAN:** Class I, Division 1, Groups A, B, C, D T4. Ex ia IIC T4 Gb. Class I, Division 1, Groups C and D T4 Ex ia IICB T4 Ga

#### Rated for:

**Class 2258 04** PROCESS CONTROL EQUIPMENT (for hazardous Canadian locations)

**Class 2258 84** PROCESS CONTROL EQUIPMENT (for hazardous locations - certified to US standards)

### SPECIAL FEATURE FOR PML-C100-EXI

- High signal accuracy  $\leq 0,25\%$  FSO



**TEMPERATURE**

- **TEMPERATURE TRANSDUCERS: PMT-S111-EXI, PMT-S122-EXI**

### ADVANTAGES:

- Hi-strength stainless steel construction
- Wide operating measuring range:  $-40\text{ }^{\circ}\text{C} \dots 200\text{ }^{\circ}\text{C}$  ( $-40\text{ }^{\circ}\text{F} \dots 392\text{ }^{\circ}\text{F}$ )
- Low static and thermal errors
- Compatible with a wide range of liquids and gases
- High grade of EMI/RFI protection grade
- Several electrical connection available



### SUITABLE HAZARDOUS AREAS AND CONDITIONS:

- **metallic connectors**

**US:** Class I, Zone 0 AEx ia IIC T4 Ga, Class I, Division 1, Groups A, B, C, D T4

**CAN:** Ex ia IIC T4 Ga IS Class I, Division 1, Groups A, B, C, D T4

- **for other plugs and cables:**

**US:** Class I, Zone 1 AEx ia IIC T4 Gb, Class I, Division 1, Groups A, B, C, D T4

**CAN:** Ex ia IIC T4 Gb, IS Class I, Division 1, Groups A, B, C, D T4

#### Rated for:

**Class 2258 04** PROCESS CONTROL EQUIPMENT (for hazardous Canadian locations)

**Class 2258 84** PROCESS CONTROL EQUIPMENT (for hazardous locations- certified to US standards)



II 2G Ex ia IIC T3 Gb

$-40\text{ }^{\circ}\text{C} \leq T_a \leq +85\text{ }^{\circ}\text{C}$

## 2. NON-SPARKING PRESSURE TRANSDUCERS



PRESSURE

- **STANDARD PRESSURE TRANSDUCERS: PMP-S111-EXNA, PMP-S122-EXNA**

### ADVANTAGES:

- Hi-strength stainless steel construction
- No internal O-Rings, no silicon oil
- Wide operating temperature range
- Low static and thermal errors
- Compatible with a wide range of liquids and gases
- High grade of EMI/RFI protection grade



### SUITABLE HAZARDOUS AREAS AND CONDITIONS:

**US:** Class I / Zone 2A ExnA II c T4 Gc

**CAN:** Class I / Division 2; Groups A, B, C, D T4 Ex nA IIC T4 Gc  
(T<sub>a</sub> = -40 °C ... 80 °C)

## 3. FLAMEPROOF ENCLOSURE PRESSURE TRANSDUCERS



PRESSURE

- **STANDARD PRESSURE TRANSDUCER: PMP-S122.04-EXD**
- **HIGH ACCURACY PRESSURE TRANSDUCER: PMP-C122.04-EXD**

### ADVANTAGES:

- Single piece construction of the sensing element with stainless steel
- Measuring cell is free from welded seams
- No O-Rings, high overload and burst pressure capability
- Fast startup time (< 5 ms)
- Low power consumption: (< 10 mA) by sensors with voltage output
- Wide variety pressure ranges and operating temperature range
- Low static and thermal errors
- Compatible with a wide range of liquids and gases
- **Factory sealed according to FM3615, no additional conduit seal required**

### SPECIAL FEATURE FOR PMP-C122.04 -EXD:

- High signal accuracy ≤ 0,25% FSO
- Signal downscaling on request by PC-software
- Zero-setting by tool or on request by PC-software
- Signal filtering on request by PC-software



### SUITABLE HAZARDOUS AREAS AND CONDITIONS:

Class I Division 1 Groups A, B, C, D explosion proof

Class II Division 1 Groups E, F, G ignition proof

UL/FM Class I Zone 1 Group IIC

Ex db IIC T5 Gb, Zone 21 Aex tb IIC T 100 °C

CSA Master Contract file: 267726

CSA Report file: 8015 0806



When creating these transmitter, we used a new type of two-chip technology (P2P Technology - our patented development), which enables the highest demands on robustness and performance such as stability, vibration, and shock resistance.

## APPLICATION:



MONITORING OF TANKS LEVEL



OIL & GAS EQUIPMENT



MARINE & OFFSHORE



INDUSTRIAL EQUIPMENT



WATER MANAGEMENT



REMOTE PROCESS CONTROL



DRILLING & MINING



CHEMICAL INDUSTRY



HYDROGEN INDUSTRY



REFRIGERATION

