

## EX Instructions

### Number of EC type examination certificate

PTB 99 ATEX 2219 X

### Amendment to operating instructions for these type series

<u>Type</u>	<u>Description</u>	<u>Instructions</u>
BE4xxx BR42xx BE2xxx BF2xxx BGxxxx	Pressure gauges with switch function	BA_037
BX1008	High temperature pressure gauges with contact equipment	BA_035
FPxxxx FUxxxx	Mechanical thermometers with switch function	BA_066
GFxxxx	Gas expansion thermometer with integrated Pt100	BA_070

### Ex version with the marking

 II 2G Ex ia IIC T4/T5/T6 Gb

- BG: Ако не разбирате указанията за безопасност, можете да изискате превод на вашия език.  
 CZ: Pokud těmto bezpečnostním pokynům nerozumíte, můžete si vyžádat jejich překlad do vašeho jazyka.  
 DA: Hvis du ikke forstår sikkerhedshenvisningerne, kan du forespørge en oversættelse i dit sprog.  
 DE: Wenn Sie diese Sicherheitshinweise nicht verstehen, können Sie eine Übersetzung in Ihrer Landessprache anfordern.  
 EL: Εάν δεν καταλαβαίνετε αυτές τις υποδείξεις ασφαλείας, μπορείτε να ζητήσετε μια μετάφραση στη μητρική σας γλώσσα.  
 ES: Si no entiendes estas indicaciones de seguridad, puede solicitar una traducción en su idioma.  
 ET: Kui need ohutusnõuded ei ole teile arusaadavad, võite tellida meilt tõlke oma keelde.  
 FI: Jos et ymmärrä näitä turvaohjeita, voi pyytää ne lähetettäväksi omalle kielellesi käännettynä.  
 FR: Si vous ne comprenez pas les consignes de sécurité, vous pouvez faire la demande d'une traduction dans votre langue.  
 HU: Amennyiben nem érti ezeket a biztonsági utasításokat, akkor kérheti ezeknek az Ön nyelvére lefordított változatát.  
 IT: Nel caso non capite queste avvertenze di sicurezza, ne potete richiedere una traduzione nella vs. lingua.  
 LT: Jei nesuprantate šių saugos reikalavimų, galite užsisakyti jų vertimą į Jūsų kalbą.  
 LV: Ja jūs nesaprotat šos drošības norādījumus, jūs varat pieprasīt tulkojumu jūsu valodā.  
 NL: Indien u deze veiligheidsinstructies niet begrijpt, kunt u een vertaling in uw eigen taal aanvragen.  
 PL: Jeżeli niniejsze przepisy bezpieczeństwa są niezrozumiałe, można poprosić o tłumaczenie we własnym języku.  
 PT: Se não compreender os avisos de segurança, pode solicitar uma tradução no seu idioma.  
 RO: Dacă nu înțelegeți aceste instrucțiuni de siguranță puteți cere traducerea acestora în limba dvs.  
 SK: Ak ste nepochopili bezpečnostné pokyny, môžete si vyžádať preklad do svojho jazyka.  
 SL: Če teh navodil ne razumete, lahko zahtevate prevod v Vaš jezik.  
 SV: Om du inte förstår den här säkerhetsanvisningen kan du begära att få en översättning till ditt språk.

## 1 General Safety Notes

The installation, set up, service or disassembly of this device must only be done by trained, qualified personnel using suitable equipment and authorized to do so.



### Warning

Media can escape if unsuitable devices are used or if the installation is not correct.

Danger of severe injury or damage

- Ensure that the device is suitable for the process and undamaged.

Measuring devices in explosive environments must be installed and commissioned by competent personnel that are familiar with the specialties of explosion protection. Modifications or damage of devices or electrical connections might negatively influence the operating safety or the ex-proofing.

Observe the regulations and standards for erection and operation of electrical installations in explosive atmospheres as well as the installation and safety notes in the corresponding operation instructions.

## 2 Requirements for intrinsically safe supply

Connect the gauges to a certified intrinsically safe power circuit in type of protection Ex ia IIC/IIB or Ex ib IIC/IIB.

The permissible current or the permissible output depends on the ambient temperature and the temperature class (see below).

Permissible maximum values:

$$U_i = 16 \text{ V}$$

Contact device type SJ2-N:

$$C_i = 30 \text{ nF}$$

$$L_i = 100 \text{ }\mu\text{H}$$

A cable length of 10 m is considered.

Contact device type SJ3,5-N:

$$C_i = 50 \text{ nF}$$

$$L_i = 250 \text{ }\mu\text{H}$$

A cable length of 10 m is considered.

## 3 Permissible ambient temperatures

The relationship between current and output of the electrical circuit, the maximum permissible ambient temperature and the temperature class is shown in the following table:

current $I_i$	output $P_i$	SJ2-N (DN 100)			SJ3,5-N (DN 160)		
		Tu at T4	Tu at T5	Tu at T6	Tu at T4	Tu at T5	Tu at T6
25 mA	34 mW	100 °C	88 °C	73 °C	100 °C	88 °C	73 °C
25 mA	64 mW	100 °C	82 °C	67 °C	100 °C	81 °C	66 °C
52 mA	169 mW	78 °C	60 °C	45 °C	89 °C	60 °C	45 °C
76 mA	242 mW	57 °C	45 °C	30 °C	74 °C	45 °C	30 °C

For temperature classes T1, T2 and T3 the temperature limits for T4 apply.

## **4 Additional Requirements**

The connection facilities of the slot-type initiators shall be installed as such that at least a degree of protection of IP20 according to IEC 60529 is met.