

EX-instructions

Number of EC type-examination certificate

BVS 04 ATEX E 144 X

Amendment to operating instructions for these type series

<u>Type</u>	<u>Description</u>	<u>Instruction</u>
GA25x1	Resistance Thermometer	BA_015
GFxxx1	Gas Expansion Thermometer with integrated Pt100	BA_070
GA2211	Inline Resistance Thermometer with interchangeable Pt100	BA_067
GA2131 GA2141	Measuring Insert for Resistance Thermometer	<i>see operating instructions for complete device</i>

Marking

 II 2G EEx ia IIC T4/T6

- 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 sikkerhedshensvisningerne, 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 entiende 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 vyžiadať 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 Pt100 measuring insert to an intrinsically safe power circuit.

Permissible maximum values:

$$U_i \leq 30 \text{ V}$$

$$P_i \leq 200 \text{ mW}$$

There is no fixed limit value for the maximum current. The device can be operated safely as long as the limits for voltage and power are complied with simultaneously. For Ex calculations, any value for the maximum current can be used, e.g. 1000 mA.

The inner capacity C_i and inductance L_i are negligible small.

The connection cable is not part of the EC type-examination certificate and must be considered separately per EN 60079-14:2014 section 16.2.2.2. According to that standard, you can assume the following values:

$$C_c \leq 200 \text{ pF/m}$$

$$L_c \leq 1 \text{ }\mu\text{H/m}$$

3 Permissible ambient temperatures

<u>Type</u>	<u>Marking</u>	<u>Class</u>	<u>Ambient</u>
All	II 2G EEx ia IIC T4/T6	T4	-40...80 °C
		T6	-40...60 °C

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

The maximum permissible media and ambient temperatures for the specific application depend on the device type and its configuration as documented in the data sheet, as well as on the temperature limits specified above and, if applicable, supplementary information in our order confirmation. Please pay attention to all mentioned aspects!

The permissible range lies between the lowest value of the upper limit and the highest value of the lower limit.

4 Additional requirements

For units with plastic components, avoid electrostatic charging of the plastic surfaces through manual rubbing or particles in flowing media.

In the event of the media temperature deviating from the ambient temperature, the definition of the ambient temperature range or the temperature class is based solely on the connection head or the connection components. Take into particular account the influence of the media temperature on the temperature of the neck tube when the thermometer or measuring insert is in operation.

Ensure that the temperature of the connecting head or the connecting components is not influenced by the media temperature (max. -200...600 °C) by taking appropriate measures, for example, by choosing an appropriate pipe length.

Fit the Pt100 measuring insert into a suitable housing that guarantees a minimum IP 20 protection class. Ensure that the internal wiring complies with the conditions laid down in section 6.4.11 of EN 50020. Fit the measuring insert in such a way that the air gaps between the bare components of intrinsically safe power circuits and the metallic housing parts are a minimum of 3 mm apart.

Note the instructions for use with regard to permissible process conditions.

Devices with an aluminium housing need to be secured against strikes to avoid sparking.

5 Resistance thermometer with transmitter

Combining a transmitter with a resistance thermometer is an installation per ATEX-guideline. Adhere to the limits and safety instructions of the transmitter when using this combination in an explosion-protected environment.

EU-Konformitätserklärung EU Declaration of Conformity


Hersteller **LABOM Mess- und Regeltechnik GmbH**
 Manufacturer **Im Gewerbepark 13, 27798 Hude, Germany**

Die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung trägt der Hersteller.
This declaration of conformity is issued under the sole responsibility of the manufacturer.

Gegenstand der Erklärung **Typenreihen**
Object of the declaration **type series**
GA25xx, GA221x, GA213x, GA214x, GA310x

Der oben beschriebene Gegenstand der Erklärung erfüllt die einschlägigen Harmonisierungsrechtsvorschriften der Europäischen Union:

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

für Messgeräte ... for devices ...	EU-Richtlinie EU directive	Harmonisierte Norm harmonised standard
in allen Ausführungen in all versions	RoHS 2011/65/EU 2015/863/EU	EN IEC 63000:2018
mit Messumformer with transmitter	EMV EMC 2014/30/EU	EN 61326-1:2013
der Typenreihe GA221x > DN 25 of type series GA221x > DN 25	PED 2014/68/EU Modul H module H	AD 2000
mit EG-Baumusterprüfbescheinigung with EC-type examination certificate BVS 04 ATEX E 144 X der Messeinsatz-Typen of measuring insert types WMX-O**-, WMX-R**-* ausgestellt von / issued by 0158 EXAM BBG Prüf- und Zertifizier GmbH	ATEX 2014/34/EU	EN IEC 60079-0:2018 EN 60079-11:2012
mit EG-Baumusterprüfbescheinigung with EC-type examination certificate IBExU 13 ATEX 1017 X ausgestellt von / issued by 0637 Institut für Sicherheitstechnik GmbH	ATEX 2014/34/EU	EN IEC 60079-0:2018 EN 60079-11:2012
mit EX-Kennzeichnung / with EX-marking  II 3G Ex nA IIC T1...T6 Gc X	ATEX 2014/34/EU	EN IEC 60079-0:2018 EN 60079-15:2010

LABOM Mess- und Regeltechnik GmbH
 Hude, 08.03.2022



ppa. Dr. T. Köster
 Leiter Bereich Entwicklung / R & D Director

notifizierte Stellen für Auditierung des QS-Systems nach
notified bodies for auditing the QS-system according to

ATEX **0044 TÜV NORD CERT**
 Zertifikat / certificate **TÜV 00 ATEX 1582 Q**

DGRL / PED **0045 TÜV NORD Systems & Co. KG**
 Große Bahnstr. 31
 D-22525 Hamburg

Zertifikat / certificate **0045/202/1201/Z/00497/21/D/001(00)**

EU-Konformitätserklärung EU Declaration of Conformity

Hersteller **LABOM Mess- und Regeltechnik GmbH**
 Manufacturer **Im Gewerbepark 13, 27798 Hude, Germany**

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Gegenstand der Erklrung
 Object of the declaration

Typenreihen
type series
GFxxxx

Der oben beschriebene Gegenstand der Erklrung erfllt die einschlgigen Harmonisierungsrechtsvorschriften der Europischen Union:
The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

fr Messgerte ... for devices...	EU-Richtlinie EU directive	Harmonisierte Norm harmonised standard
in allen Ausfhrungen in all versions	RoHS 2011/65/EU 2015/863/EU	EN IEC 63000:2018
mit Messumformer with transmitter	EMV EMC 2014/30/EU	EN 61326-1:2013
mit Induktivkontakt with inductive contact	EMV EMC 2014/30/EU	EN 60947-5-6:2000
mit EG-Baumusterprfbescheinigung with EC-type examination certificate BVS 04 ATEX E 144 X der Messeinsatz-Typen of measuring insert types WMX-O**-, WMX-R**-* ausgestellt von / issued by 0158 EXAM BBG Prf- und Zertifizier GmbH	ATEX 2014/34/EU	EN IEC 60079-0:2018 EN 60079-11:2012

LABOM Mess- und Regeltechnik GmbH
 Hude, 30.11.2021



ppa. Dr. T. Kster
 Leiter Bereich Entwicklung / R & D Director

notifizierte Stelle fr Auditierung des QS-Systems nach
notified body for auditing the QS-system according to
 ATEX **0044 TV NORD CERT**
 Zertifikat / certificate **TV 00 ATEX 1582 Q**