

## EX Instructions

### Number of EC type examination certificate

TÜV 04 ATEX 2387 X


### Amendment to operating instructions for these type series

<u>Type</u>	<u>Description</u>	<u>Instructions</u>
CV3xxx	Pressure transmitter PASCAL CV	BTA-028, BTA-030, BTA-055, BTA-081

### Marking

 II 1/2 G Ex ia IIC T4/T5/T6 Ga/Gb

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

 II 2 D Ex ia IIIC Txx°C Db

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 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 nesaprotāt 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.

Avoid electrostatic charge on plastic surfaces, if present.

## 2 Requirements for intrinsically safe supply

Connect the pressure transmitter to a certified intrinsically safe power circuit in type of protection EX ia IIC or Ex ia IIIC.

Permissible maximum values:

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

$$I_i \leq 150 \text{ mA}$$

$$P_i \leq 1000 \text{ mW}$$

Effective internal inductance:

$$L_i \leq 20 \text{ } \mu\text{H}$$

Effective internal capacity:

$$C_i \leq 4,8 \text{ nF}$$

Since the intrinsically safe signal circuit is connected with earth potential for safety reasons, potential equalisation has to exist in the complete course of the erection of the intrinsically safe circuit.

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 media and ambient temperatures

EPL	Temperature class	Permissible media temperature	Permissible ambient temperature
Ga/Gb	T6	-20...60 °C	-20...60 °C
	T5	-20...60 °C	-20...80 °C
	T4	-20...60 °C	-20...85 °C
Gb	T6	-20...60 °C	-20...60 °C
	T5	-20...80 °C	-20...80 °C
	T4	-20...85 °C	-20...85 °C

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

The maximum surface temperatures, regarding dust explosion protection have been determined without dust layer. Additional information can be taken from EN 60079-14 section 5.6.3.3.

EPL	max. surface temperature	Permissible media temperature	Permissible ambient temperature
Db	60 °C	40 °C	40 °C
	80 °C	60 °C	60 °C
	100 °C	80 °C	80 °C
	105 °C	85 °C	85 °C

For the max. surface temperatures above 105 °C the temperature limits for 105 °C apply.

### 4 Additional Requirements

If category 1 requirements apply the pressure transmitter measuring insert must only be operated at atmospheric conditions (Temperature from -20 °C to 60 °C, pressure from 0,8 bar to 1,1 bar).

Devices with EPL Da/Db or Db (Ex for dust) must not be operated continuously while the case is open. During installation and operation it must be ensured that no dust is entering the case.



Lösungen nach Maß für industrielle Druck- und Temperaturmessungen in den Bereichen Food, Pharma, Biotechnik, Chemie, Petrochemie, Energie, Umweltschutz und Seeschifffahrt.  
"Made to Measure" Process Instrumentation for Pressure and Temperature Measurement in the Food, Pharmaceutical, Bio-Technology, Chemical, Petro-Chemical, Power, Environmental and Maritime Industries.

## EU-Konformitätserklärung EU Declaration of Conformity

KE\_028

Hersteller / Manufacturer

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

Die CE-Kennzeichnung der Geräte

*The CE symbol on the devices*

**Druckmessumformer PASCAL CV** der  
Typenreihen

**Pressure transmitter PASCAL CV, type series**

**CV3xxx**

weist auf die Übereinstimmung mit den relevanten  
Richtlinien hin.

*indicates their compliance with the relevant  
directives.*

Folgende Richtlinien werden angewandt:

*The following directives are applied:*

2014/68/EU	DGRL PED	PS > 200 bar: Modul A, druckhaltendes Ausrüstungsteil PS > 200 bar: Module A, pressure accessory	
2011/65/EU	RoHS	EN 50581:2012	
2014/30/EU	EMV EMC	EN 61326-1:2013	
2014/34/EU	ATEX	EN 60079-0:2012/A11:2013 EN 60079-11:2012 EN 60079-26:2015	Für Typenreihe / For type series <b>CV3xx1</b> Nr. der EG-Baumusterprüfbescheinigung EC-type examination certificate <b>TÜV 04 ATEX 2387 X</b>  Ausgestellt von / issued by 0044 TÜV NORD CERT

Hude, 28.12.2017

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

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

ATEX  
Zertifikat / certificate

**0044 TÜV NORD CERT**  
**TÜV 00 ATEX 1582 Q**

DGRL / PED  
Zertifikat / certificate

**0045 TÜV NORD Systems**  
**07 202 1321 Z 0042/12/02**