



Safety instructions VEGABAR 17

Intrinsic safety

BVS 16 ATEX E 060 X



CE 0044



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VEGA

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Please note:

These safety instructions are part of the documentation:

- 27636 - VEGABAR 17
- 54161 - EU type approval certificate BVS 16 ATEX E 060 X

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DE	Sicherheitshinweise für den Einsatz in explosionsgefährdeten Bereichen
EN	Safety instructions for the use in hazardous areas
FR	Consignes de sécurité pour une application en atmosphères explosibles
IT	Normative di sicurezza per l'impiego in luoghi con pericolo di esplosione
ES	Instrucciones de seguridad para el empleo en áreas con riesgo de explosión
PT	Normas de segurança para utilização em zonas sujeitas a explosão
NL	Veiligheidsaanwijzingen voor gebruik op plaatsen waar ontploffingsgevaar kan heersen
SV	Säkerhetsanvisningar för användning i explosionsfarliga områden
DA	Sikkerhedsforskrifter til anvendelse i explosionsfarlig atmosfære
FI	Turvallisuusohjeet räjähdysvaarallisissa tiloissa käyttöä varten
EL	Υποδείξεις ασφαλείας για τη χρησιμοποίηση σε περιοχές που υπάρχει κίνδυνος έκρηξης

DE	Die vorliegenden Sicherheitshinweise sind im Download unter www.vega.com standardmäßig in den Sprachen deutsch, englisch, französisch und spanisch verfügbar. Weitere EU-Landessprachen stellt VEGA nach Anforderungen zur Verfügung.
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1 Area of applicability

These safety instructions apply to the pressure transmitters series VEGABAR BR17.***** according to EU type approval certificate BVS 16 ATEX E 060 X (certificate number on the type label) and for all instruments with the number of the safety instruction (54160) on the type label.

2 General information

The pressure transmitters VEGABAR BR17.***** are used for pressure measurement also in hazardous areas. Measured products can be gases, vapours and liquids.

If the VEGABAR BR17.***** are installed and operated in hazardous areas, the general Ex installation regulations EN 60079-14 as well as these safety instructions must be observed.

The operating instructions as well as the installation regulations or standards that apply for explosion protection of electrical systems must generally be observed.

The installation of explosion-endangered systems must always be carried out by qualified personnel.

3 Technical data

Electrical data

The pressure transmitters VEGABAR BR17.***** have intrinsically safe circuits.

VEGABAR BR17.*****

Supply and signal circuit

In ignition protection type intrinsic safety Ex ia IIC

Only for connection to a certified, intrinsically safe circuit.

Maximum values:

- $U_i = 30 \text{ V}$
- $I_i = 100 \text{ mA}$
- $P_i = 0.8 \text{ W}$
- $P_i = 750/650/550 \text{ mW}$ for instrument category 1D and 1/2D

Effective inner capacitance $C_i \leq 16.5 \text{ nF}$ (version with fix cable connection $C_i \leq 16.5 \text{ nF} + 0.2 \text{ nF/m}$).

Effective inner inductance L_i is negligible (version with fix cable connection $L_i \leq 2 \mu\text{H/m}$).

4 Application conditions

Permissible ambient temperatures

The max. permissible ambient temperatures depending on the version and temperature class are specified in the following table.

Pressure transmitter VEGABAR type** version with fix connected cable	Category Group II	Category Group I	Additional marking	Ambient and product temperature range
BR17.A***DL*** BR17.S***DL***	1/2G		Ex ia IIC T4/T5/T6 Ga/Gb	-30 ... +60 °C (T6) -30 ... +70 °C (T5) -30 ... +70 °C (T4)
BR17.A***DL***		M1	Ex ia I Ma	-30 ... +70 °C

Pressure transmitter VE-GABAR type** version with fix connected cable	Category Group II	Category Group I	Additional marking	Ambient and product temperature range
BR17.A***EM**** BR17.S***EM**** BR17.D***EM****	1G, 1/2G		Ex ia IIC T4/T5/T6 Ga, Ga/Gb	-30 ... +60 °C (T6) -30 ... +70 °C (T5) -30 ... +70 °C (T4)
BR17.D***EM****	1D, 1/2D		Ex ia IIIC T135°C Da, Da/Db	-30 ≤ Ta ≤ +40 °C (750 mW) -30 ≤ Ta ≤ +70 °C (650 mW) -30 ≤ Ta ≤ +70 °C (550 mW)
BR17.A***EM**** BR17.D***EM****		M1	Ex ia I Ma	-30 ... +70 °C

Pressure transmitter VE-GABAR type** version with angle plug according to DIN 175301-803A	Category Group II	Category Group I	Additional marking	Ambient and product temperature range
BR17.A***A4**** BR17.S***A4****	1/2G		Ex ia IIC T4/T5/T6 Ga/Gb	-30 ... +60 °C (T6) -30 ... +75 °C (T5) -30 ... +105 °C (T4)
BR17.A***A4****		M1	Ex ia I Ma	-30 ... +105 °C

Pressure transmitter VE-GABAR type** version with round plug connector M12 x 1	Category Group II	Category Group I	Additional marking	Ambient and product temperature range
BR17.A***M4**** BR17.S***M4****	1/2G		Ex ia IIC T4/T5/T6 Ga/Gb	-30 ... +60 °C (T6) -30 ... +75 °C (T5) -30 ... +105 °C (T4)
BR17.A***M4****		M1	Ex ia I Ma	-30 ... +105 °C

Pressure transmitter VE-GABAR Typ** version with connecting head	Category Group II	Category Group I	Additional marking	Ambient and product temperature range
BR17.A***FW**** BR17.S***FW****	1/2G		Ex ia IIC T4/T5/T6 Ga/Gb	-20 ≤ Ta ≤ +60 °C -20 ≤ Ta ≤ +75 °C -20 ≤ Ta ≤ +85 °C
BR17.A***FV**** BR17.S***FV****	1/2G		Ex ia IIC T4/T5/T6 Ga/Gb	-50 ≤ Ta ≤ +60 °C -50 ≤ Ta ≤ +75 °C -50 ≤ Ta ≤ +105 °C
BR17.A***FW****		M1	Ex ia I Ma	-20 ≤ Ta ≤ +85 °C

Pressure transmitter VE-GABAR Typ** version with connecting head	Category Group II	Category Group I	Additional marking	Ambient and product temperature range
BR17.A***FV****		M1	Ex ia I Ma	$-50 \leq T_a \leq +105 \text{ }^{\circ}\text{C}$

5 Special conditions for a reliable application

The mounting of the pressure transmitter into the wall of areas requiring category 1G instruments must be carried out in such a way that protection rating IP 67 according to EN 60529 is ensured.

The mounting of the pressure transmitter into the wall of areas requiring category 1D instruments must be carried out in such a way that protection rating IP 6X according to EN 60529 is ensured.

The technical information of the manufacturer for use of the pressure transmitter in conjunction with aggressive/corrosive products and for avoiding mechanical damages must be ensured.

When using the pressure transmitter in areas requiring category 1G/1D instruments, the screen of the connection cable must be integrated in the potential equalization of the vessel.

The cable leadthrough of the instruments in the wall of areas requiring category 1G instruments must be carried out in such a way that protection rating IP 67 according to EN 60529 is ensured.

The cable leadthrough of the instruments in the wall of areas requiring category 1D instruments must be carried out in such a way that protection rating IP 6X according to EN 60529 is ensured.

The measurement of products with temperatures higher than the product temperature ranges described in the table is permitted by using special cooling zones. However, the permissible surface temperatures must not be exceeded which are applicable for the areas due to the stipulated temperature classes. The temperature on the hexagon of the tubular housing must also not exceed the max. value of the temperature range stipulated in the tables.

Printing date:

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All statements concerning scope of delivery, application, practical use and operating conditions of the sensors and processing systems correspond to the information available at the time of printing.

Subject to change without prior notice

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