

Translation  
(1) **EU-Type Examination Certificate**



(2) Equipment and protective systems intended for use in potentially explosive atmospheres, **Directive 2014/34/EU**



(3) **Certificate Number** TÜV 16 ATEX 169551 X **issue:** 00  
(4) for the product: Differential pressure transmitter type  
OPTIBAR DP 7060 C VGK7 \* \*\*\*\*\* 0 0  
(5) of the manufacturer: KROHNE Pressure Solutions GmbH  
(6) Address: Gewerbepark Meißen 14  
32423 Minden  
Germany  
Order number: 8000453208  
Date of issue: 2017-05-24

(7) The design of this product and any acceptable variation thereto are specified in the schedule to this EU-Type Examination Certificate and the documents therein referred to.

(8) The TÜV NORD CERT GmbH, Notified Body No. 0044, in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential ATEX Assessment Report No. 17 203 169551.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN 60079-0: 2012 + A11:2013 EN 60079-1:2014 EN 60079-11:2012 EN 60079-26:2015**

except in respect of those requirements listed at item 18 of the schedule.

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions for Use specified in the schedule to this certificate.

11) This EU-Type Examination Certificate relates only to the design, and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the product shall include the following:

**II 1/2G Ex db ia IIC T4/T6 Ga/Gb or II 2G Ex db ia IIC T4/T6 Gb**

TÜV NORD CERT GmbH, Langemarckstraße 20, 45141 Essen, notified by the central office of the countries for safety engineering (ZLS), Ident. Nr. 0044, legal successor of the TÜV NORD CERT GmbH & Co. KG Ident. Nr. 0032

The head of the notified body

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(13) **SCHEDULE**

(14) **EU-Type Examination Certificate No. TÜV 16 ATEX 169551 X issue 00**

(15) Description of product

Description:

The differential pressure transmitter type OPTIBAR DP 7060 C VGK7 \* \*\*\*\*\* 0 0 are two-wire devices and serve for differential pressure, flow and level measurement in the gas-endangered area.

The OPTIBAR DP 7060 C consists of an intrinsically safe measuring cell (type: DP 7000 and other variations) in conjunction with an intrinsically safe converter electronic, which is installed in a flameproof enclosure Ex "d".

Z	2-wire 4 ... 20 mA current output
H	2-wire 4 ... 20 mA current output with superimposed HART signal
A	2-wire 4 ... 20 mA current output with superimposed HART signal and additional SIL qualification
F	Foundation Fieldbus
P	Profibus PA

Type reference:

VGK7 \* \*\*\*\*\* 0 0

VGK7 \* \*\*1 \*\*\*\*\* \*2 \*3 \*4 \*5 \*6 \*\*\*\*\* 0 0

**1	AE/WE/VE	Approval type
*2	Z/H/A/F/P	Electronic
*3	X/Z	Suppl. electronic
*4	A/D/V/W	Enclosures
*5	1/K/A/L/S	Enclosures type
*6	0/6/D/N/P/8	Electr. connect. / material
	Other asterisks	Not relevant or free variable parameter

Parameters:

OPTIBAR DP 7060 C VGK7*AW/V E with electronics Z (4...20 mA), H (4...20 mA/HART®), A (4...20 mA/HART® with SIL qualification), Version with single chamber enclosure A, V	
Supply and signal circuit: (Terminals 1 [+], 2 [-] in the electronic compartment Indicator and control circuit: (Terminals 5,6,7,8)	Ui = 9.6...35 VDC Um = 253 VAC
Indicating and adjustment module circuit: Spring contacts in the electronics compartment	For connection to the indicating and adjustment module.



Schedule to EU-Type Examination Certificate No. TÜV 16 ATEX 169551 X issue 00

OPTIBAR DP 7060 C VGK7*AW/V E with electronics H (4...20 mA/HART®), A (4...20 mA/HART® with SIL qualification), Version with two-chamber housing D, W	
Supply and signal circuit: (Terminals 1 [+], 2 [-] in the electronic compartment Indicator and control circuit: (Terminals 5,6,7,8)	U <sub>i</sub> = 9.6...35 VDC U <sub>m</sub> = 253 VAC
Indicating and adjustment module circuit: Spring contacts in the electronics and connection compartment	For connection to the indicating and adjustment module.

OPTIBAR DP 7060 C VGK7*AW/V E with electronics P (Profibus PA), F (Foundation Fieldbus), Version with single chamber enclosure A, V	
Supply and signal circuit: (Terminals 1 [+], 2 [-] in the electronic compartment Indicator and control circuit: (Terminals 5,6,7,8)	U <sub>i</sub> = 9.6...32 VDC U <sub>m</sub> = 253 VAC
Indicating and adjustment module circuit: Spring contacts in the electronics compartment	For connection to the indicating and adjustment module.

OPTIBAR DP 7060 C VGK7*AW/V E with electronics P (Profibus PA), F (Foundation Fieldbus), Version with two-chamber housing D, W	
Supply and signal circuit: (Terminals 1 [+], 2 [-] in the electronic compartment Indicator and control circuit: (Terminals 5,6,7,8)	U <sub>i</sub> = 9.6...32 VDC U <sub>m</sub> = 253 VAC
Indicating and adjustment module circuit: Spring contacts in the electronics and connection compartment	For connection to the indicating and adjustment module.

OPTIBAR DP 7060 C VGK7*AW/V E with electronics H (4...20 mA/HART®), A (4...20 mA/HART® with SIL qualification), Version with two-chamber housing D, W and suppl. Electronics Z (2nd current output)	
Supply and signal circuit 1: (Terminals 1 [+], 2 [-] in the electronic compartment	U <sub>i</sub> = 9.6...32 VDC U <sub>m</sub> = 253 VAC
Supply and signal circuit 2: (Terminals 7 [+], 8 [-] in the electronic compartment	U <sub>i</sub> = 9.6...35 VDC U <sub>m</sub> = 253 VAC
Indicating and adjustment module circuit: Spring contacts in the electronics compartment	For connection to the indicating and adjustment module.



Schedule to EU-Type Examination Certificate No. TÜV 16 ATEX 169551 X issue 00

OPTIBAR DP 7060 C VGK7*AW/V E design with separate cable outlet (All electronics)	
Circuit between probe unit and external electronics Terminal 1- yellow, Terminal 2 - white, Terminal 3 - red, Terminal 4 - black	Type of protection Intrinsic Safety Ex ia IIC. For the OPTIBAR DP 7060 C VGK7 * AW/V E version with fixed cable on the probe unit and external electronics, the length of the supplied cable must be between the external housing and the probe unit do not exceed 180 m.

Ambient temperature range:

1/2G:

Temperature class	Process temperature measuring cell	Ambient temperature Enclosure and electronics
T4	-40 ... 55 °C (-40 ... 85 °C)	-40 ... 60 °C
	-40 ... 72 °C (-40 ... 85 °C)	-40 ... 50 °C
	-40 ... 85 °C (-40 ... 85 °C)	-40 ... 40 °C
T6	-40 ... 46 °C (-40 ... 55 °C)	-40 ... 46 °C

The values in brackets are only for the separate sensor unit.

2G:

Temperature class	Process temperature measuring cell	Ambient temperature Enclosure and electronics
T4	-40 ... 55 °C (-40 ... 85 °C)	-40 ... 60 °C
	-40 ... 72 °C (-40 ... 85 °C)	-40 ... 50 °C
	-40 ... 85 °C (-40 ... 85 °C)	-40 ... 40 °C
T6	-40 ... 46 °C (-40 ... 55 °C)	-40 ... 46 °C

The values in brackets are only for the separate sensor unit.



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(16) Drawings and documents are listed in the ATEX Assessment Report No. 17 203 169551

(17) Specific Conditions for Use

1. At the plastic parts of the difference pressure transmitter type OPTIBAR DP 7060 C VGK7\* there is a danger of ignition by electrostatic discharge. Observe manual of the manufacturer and warning label.
2. For EPL Ga resp. EPL Ga/Gb applications, at the metallic parts of the difference pressure transmitter type OPTIBAR DP 7060 C VGK7\* made of light metal there is a danger of ignition by impact or friction. Observe manual of the manufacturer.
3. For EPL Ga/Gb applications, the medium tangent materials of the difference pressure transmitter type OPTIBAR DP 7060 C VGK7\* have to be resistant to the media. Observe manual of the manufacturer.
4. For the execution with separate housing of the difference pressure transmitter type OPTIBAR DP 7060 C VGK7\* , potential equalization has to exist in the complete course of the erection of the connecting cable between the electronics housing and the measuring sensor enclosure.

(18) Essential Health and Safety Requirements

No additional ones

- End of Certificate -