

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:

That the Fixed oxygen analysis and gas detection equipment

with type designation(s)

PEX 3000, PEX 3000 Remote, Polytron SE Ex PR M1/M2 DD/DQ

Issued to

Dräger Safety AG & Co. KGaA
Lübeck, Germany

is found to comply with the requirements in the following Regulations/Standards:

Regulation **(EU) 2019/1397,**

item No. MED/3.54. SOLAS 74 as amended, Regulation II-2/4 & VI/3 and FSS Code 15

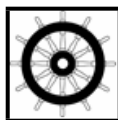
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2024-11-20**.

Issued at **Hamburg** on **2019-11-21**

DNV GL local station:
Hamburg

Approval Engineer:
Dariusz Lesniewski



Notified Body
No.: **0098**

for **DNV GL SE**

Gerhard Aulbert
Head of Notified Body

The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU. This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL SE of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled. Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.



Product description

Sensors/transmitters for detection of flammable gases and vapours 0...100% LEL

PEX 3000 - Gas transmitter consisting of:

- M1 Housing (type XTR 0000) or M2 housing (type XTR 0001)
- transmitter output 4-20mA
- sensing head PR M DD/DQ (XDS 0210)

PEX 3000 Remote - Gas transmitter consisting of:

- M1 Housing (type XTR 0090) or M2 housing (type XTR 0091)
- transmitter output 4-20mA
- combination sensing head PR M DD/DQ (XDS 0210) with housing

Polytron SE Ex PR M1/M2 DD/DQ – sensing head for connection to Dräger SE Ex card placed in Regard Controller consisting of:

- M1 Housing (type XTR 0210) or M2 housing (type XTR 0211)
- sensing head PR M DD/DQ (XDS 0210)

Power supply: 12 to 30 V d.c. (nominal 24V DC)

Signal output: nominal operation 4 to 20 mA, maintenance 3.4 mA, fault condition <1.2 mA

Degree of protection: IP 66

Software version: V 2.x (transmitter)

Application/Limitation

The equipment is found to comply with following location/application dependent requirements:

Category:	TEMPERATURE	VIBRATION	EMC	ENCLOSURE
Location class:	TMP-D	VIB-A	EMC-B	ECL-C

Location class (location or test parameter):

TMP-D : -25°C/+70°C (ref. IEC 60092-504 (2016) table 1 item 6-7)

VIB-A : Acceleration 0,7g (ref. IEC 60092-504 (2016) table 1 item 10)

EMC-B : Bridge and open deck zone (ref. IEC 60092-504 (2016) table 1 item 13-20)

ECL-C : IP66, open deck, masts (ref. IEC 60092-504 (2016) table 1 item 9 and 12)

Type Examination documentation

Tests carried out

Applicable test standards:

- IEC 60092-504:2016
- IEC 60533:2015
- EN 60079-0:2012 incl. A11:2013
- EN 60079-29-1:2016

Not applicable test standards:

- EN 50104 (2010)
- IMO MSC.1/Circ.1370

Marking of product

The products to be marked with:

- Manufacturer's name or trade mark
- Type designation
- Mark of Conformity (wheel mark), followed by



Job Id: **344.1-009324-1**
Certificate No: **MEDB00005C0**

- Identification number of the NoBo / the year the mark is affixed (example: 0098/2019)