

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB0000411
Revision No:
1

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: category 3: (explosive gas atmospheres)

with type designation(s)
Polytron 8xxx Series, ITR 0xxx, XTR 0xxx, ETR 0xxx

Issued to

Dräger Safety AG & Co. KGaA
Lübeck, Germany

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

Regulation (EU) 2023/1667,

item No. MED/3.54b. SOLAS 74 as amended, Regulation II-2/4 & VI/3 and FSS Code 15, IMO MSC.1/Circ.1370

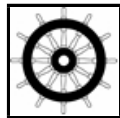
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2029-02-14**.

Issued at **Hamburg** on **2024-02-15**

DNV local unit:
Hamburg – CMC North/East

Approval Engineer:
Dariusz Lesniewski



Notified Body
No.: **0098**

for **DNV GL SE**

Digitally Signed By:
Christine Mydlak-Röder
Location: **DNV Hamburg,**
Germany

Mydlak-Röder, Christine
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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

Gas transmitter for monitoring concentrations of combustible gases and vapours and oxygen

Technical Data Polytron 8xx0:

Supply voltage: 3-wire shielded cable, 10 to 30 VDC

Output: 4 to 20 mA analogue current (normal condition)

3x relay outputs (Alarm, Fault, Maintenance) - optional

Display: Resolution 128x64, back-lit

3x LEDs (Alarm, Fault, Maintenance)

Degree of protection: IP 65/66/67

Software Version: 4.x.x

Transmitter types, coding of type:

(1)TR 0(2)(3)(4)

(1) Sensor

I, X or E : infrared (I), catalytic (X) or electro-chemical (E)

(2) Material of housing

4 or 5 : aluminium (4), stainless steel (5)

(3) Internal sensor (ITR 0xxx)

1 : IDS 0101 (PIR 7000, 334) P8700

2 : IDS 0102 (PIR 7000, 340) P8700

Internal sensor (XTR 0xxx)

0 : IDS 0002 (DrägerSensor IR) P8310

1 : XDS 020X (Dräger DQ / DQ S) P8200

Internal sensor (ETR 0xxx)

0 : O₂, O₂LS P8100

(4) Interface

0 : XP or "d", 4-20mA

1 : XP or "d", 4-20mA w/Relays

I : "e", 4-20mA

J : "e", 4-20mA w/Relays

Application/Limitation

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

Category	TEMPERATURE	VIBRATION	ENCLOSURE	EMC
Location class	TMP-D	VIB-B	ECL-B/C*	EMC-B

*ECL-C: C

- XTR 05**
- ITR 05**
- ETR 05** (excepted ETR 052*)
- EAC 011*
- ERH 00**
- ERA 00**
- only with stainless steel or nickel plated blind plugs

EMC-B:

- Type approved power supply required

Location class: Location or test parameter

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

VIB-B: Acceleration 4g (ref. IEC 60092-504 (2016) table 1 item 10)

ECL-B (IP65): Engine room (ref. IEC 60092-504 (2016) table 1 12)

ECL-C (IP66/67): Open deck, masts (ref. IEC 60092-504 (2016) table 1 item 9 and 12)

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

Type Examination documentation

Test Reports (Environmental, EMC):

Test Report No. 422.193.2 Rev. 0, dated 2022-11-24 (EMC, P8100 SensorAlive)

Test Report No. 423.134.1 Rev. 0, dated 2023-09-22 (EMC, P8200)

Test Report No. 423.134.2 Rev. 0, dated 2023-09-22 (EMC, P8700)

Test Report No. 423.134.3 Rev. 0, dated 2023-10-10 (vibration, P8200)

Test Report No. 423.134.4 Rev. 0, dated 2023-10-10 (vibration, P8700)
Test Report No. 423.134.5 Rev. 0, dated 2023-10-12 (clime, P8200)
Test Report No. 423.134.6 Rev. 0, dated 2023-10-12 (clime, P8700)
Test Report No. 423.134.7 Rev. 0, dated 2023-10-13 (IP, P8200)
Test Report No. 423.134.8 Rev. 0, dated 2023-10-13 (IP, P8700)

Explosion Protection:

PTB 11 ATEX 1005 X, Issue 04, dated 2022-12-14

Test Report No. Ex 22-21212, dated 2022-12-14

Measuring Performance, Software:

BVS 13 ATEX G 001 X, Issue 02, dated 2023-10-23

PFG 14 G 001 X, Supplement 8, dated 2023-10-31

Test Report No. 41300313P N12, dated 2023-10-31

Test Report No. 41300313P N14, dated 2023-10-17

Test Report No. 41300313P N15, dated 2023-10-23

Z10053474 0023 Rev. 02, dated 2020-07-30

Test Report No. DL76801aC, dated 203-11-24

Other:

IFU_ 9033826 (P8900) Edition 07, dated 2023-03

11258338 DNV Test Plan Polytron 8xx0

Tests carried out

IEC 60092-504:2016

IEC 60533:2015

EN 50104:2019

EN 60079-0:2018 incl. AC:2020

EN 60079-29-1:2016

Marking of product

- Manufacturer's name or trade mark
- Type designation
- Mark of Conformity (wheel mark), followed by
- Identification number of the NoBo / the year the mark is affixed (example: 0098/2023)