

Dräger Pac 6x00 / 8x00 Approvals


Dräger

Approvals / Marking Pac 6000/8000/8500

Pac 8000 Type MOG 0010

I M1 Ex ia I Ma Cl. I, Zone 0, A/Ex ia IIC T4 Ga
 II 1G Ex ia IIC T4 Ga Cl. II, Div. 1, Gr. E, F, G
 0158 -40°C ≤ Ta ≤ +55°C

KIWA 19 ATEX 0031, IECEx KIWA 19.0017 IP 68
 CSA 16CA70055575
 WARNING: Read manual for safety precautions.
 AVERTISSEMENT: Lire le manuel pour les précautions sécurité.

FCC ID: X60-BT00X Dräger Safety
 IC: 5895F-BT00X DE-23560
 C US HVIN: BT00X Lübeck

Pac 8500 Type MOG 0015

I M1 Ex ia I Ma, Ex ia IIC T4 Ga
 II 1G Ex ia IIC T4 Ga -40°C ≤ Ta ≤ +55°C

KIWA 19 ATEX 0031, IECEx KIWA 19.0017
 Class I, Zone 0, A/Ex ia IIC T4 Ga
 C US Class II, Div. 1, Group E, F, G CSA 16CA70055575
 WARNING: Read manual for safety precautions. IP68
 AVERTISSEMENT: Lire le manuel pour les précautions sécurité.
 Dräger Safety AG & Co. KGaA, 23560 Lübeck, Germany

Pac 8500 Type MOG 0015

I M1 Ex ia I Ma Cl. I, Zone 0, A/Ex ia IIC T4 Ga
 II 1G Ex ia IIC T4 Ga Cl. II, Div. 1, Gr. E, F, G
 0158 -40°C ≤ Ta ≤ +55°C

KIWA 19 ATEX 0031, IECEx KIWA 19.0017 IP 68
 CSA 16CA70055575
 WARNING: Read manual for safety precautions.
 AVERTISSEMENT: Lire le manuel pour les précautions sécurité.

FCC ID: X60-BT00X Dräger Safety
 IC: 5895F-BT00X DE-23560
 C US HVIN: BT00X Lübeck

Serial No.

Serial Number key: The third letter of the serial number specifies the manufacturing year: M = 2019, N = 2020, P = 2021, R = 2022, S = 2023, T = 2024, U = 2025, W = 2026, X = 2027, Y = 2028,

Z = 2029, etc. (Letters G, I, O, Q are omitted)

Example: Serial Number ARMB-0001: the third letter is M, which means that the unit was manufactured in 2019.

Approvals / Marking Pac 6500

Pac 6500 Type MOG 0005

I M1 Ex ia I Ma, Ex ia IIC T4 Ga
 II 1G Ex ia IIC T4 Ga -40°C ≤ Ta ≤ +55°C
 0158 CSA 16CA70055575, FTZÜ 18 E 0008

KIWA 19 ATEX 0031, IECEx KIWA 19.0017
 Class I, Zone 0, A/Ex ia IIC T4 Ga only
 C US Class II, Div. 1, Group E, F, G O2
 WARNING: Read manual for safety precautions. IP68 0098-xxxx
 AVERTISSEMENT: Lire le manuel pour les précautions sécurité.
 Dräger Safety AG & Co. KGaA, 23560 Lübeck, Germany

Pac 6500 Type MOG 0005

I M1 Ex ia I Ma Cl. I, Zone 0, A/Ex ia IIC T4 Ga
 II 1G Ex ia IIC T4 Ga Cl. II, Div. 1, Gr. E, F, G
 0158 -40°C ≤ Ta ≤ +55°C

KIWA 19 ATEX 0031, IECEx KIWA 19.0017 IP 68
 CSA 16CA70055575, FTZÜ 18 E 0008
 WARNING: Read manual for safety precautions.
 AVERTISSEMENT: Lire le manuel pour les précautions sécurité.

FCC ID: X60-BT00X Dräger Safety
 IC: 5895F-BT00X DE-23560
 C US HVIN: BT00X Lübeck

Only for EU:

Radio

Max. radiated power:

Bluetooth®: < 10 dBm EIRP

Operating frequency: 2402-2480 MHz

Only for Canada:

CAN ICES-3 (B)/NMB-3(B)

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- 1.This device may not cause interference.
- 2.This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- 1.L'appareil ne doit pas produire de brouillage;
- 2.L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Only for USA:

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC responsible party:

Draeger Inc.

7256 S. Sam Houston W. Parkway

Suite 100

Houston, Tx 77085 USA

phone: +1 346-802-6111

e-mail: DIHouston.Approvals@draeger.com

Only for Japan:

Dräger Pac 6x00/8x00 取扱説明書 追記事項

1.1 基本的な安全上の注意」に関する追記事項

- 本製品の分解・改造は、絶対に行わないでください。
- 本製品の修理およびメンテナンスにあたっては、Dräger の純正部品およびアクセサリのみを使用してください。

1.2 防爆に関する安全上の注意」に関する追記事項

危険場所の定義 (日本)

Dräger Pac 6x00/8x00 ガス検知警報器は、ゾーン 0、ゾーン 1、ゾーン 2 に区分される危険場所で、かつ、周囲温度は - 40 ~ + 55 °C で、爆発等級が IIA、IIB、IIC で、温度等級が T1、T2、T3、T4 のガスが存在する可能性のある場所で使用できます。

2.1 警告表示について」に関する追記事項

警 告 この警告事項に従わない場合、使用者が死亡または重傷を負うおそれがあることを示します。

注意事項 この注意事項に従わない場合、人が傷害を負うおそれや製品が損傷するおそれ、物的損害が発生するおそれがあることを示します。

5.1 電池の交換」に関する追記事項

- 警告：リチウム電池 (LBT 0100) のみを使用してください。
- 電池パックの製造者：Dräger Safety AG & Co. KGaA

8.1 ガス検知警報器」に関する追記事項

定格電圧 3.6V

認証 労検第 TC 22445 号

Ex ia IIC T4 Ga

Ta = - 40 ~ +55 °C

適用基準：

工場電気設備防爆指針 (国際整合技術指針)

JNIOH-TR-46-1 及び 6: 2015

保護等級 IP68 (IECEX Test Report に基づくものです)

※TIIS の検定では評価していません (国内検定上は IP20)

Limited Manufacturer Guarantee

We are going paperless.

Scan the QR code and enter document number 9300255.



www.draeger.com/ifu

9300255

For details, see instructions for use/data sheets for the respective sensor.

The instructions for use, technical manual and data sheets for the utilized sensors can be downloaded from:
www.draeger.com/ifu and the PC software CC-Vision from: www.draeger.com/software

	XXS O ₂ 6810881	XXS CO-LC 6813210	XXS H ₂ S-LC 6811525
	Pac 6500 8326332	Pac 6500 8326331	Pac 6500 8326330
Measuring principle	Electrochemical	Electrochemical	Electrochemical
Time of response t _{0...90} ¹⁾	≤ 10 s	≤ 20 s	≤ 30 s
Time of response t _{0...50}	≤ 6 s	≤ 12 s	≤ 20 s
Time of recovery t _{0...10}	n/a	≤ 20 s	≤ 30 s
Time of recovery t _{0...50}	n/a	≤ 12 s	≤ 20 s
Indication range	0 to 25 vol %	0 to 2000 ppm	0 to 100 ppm
Measuring range (certified)	0 to 25 vol %	3 to 500 ppm	0.4 to 100 ppm
Capture range ²⁾	± 0.5 vol %	± 1 ppm	± 0.4 ppm
Drift of measured value/month	≤ ±1 %	≤ ±0.5 %	≤ ±0.5 %
Warm-up time	≤ 5 min	≤ 5 min	≤ 5 min
Linearity error	≤ 0.3 vol %	≤ ± 2 % of measured value	≤ ± 2 % of measured value
Standards certified measuring function for deficiency and toxic gases	EN 50104	EN 45544-1 EN 45544-2 EN 45544-3	EN 45544-1 EN 45544-2 EN 45544-3
Cross-sensitivities	Negatively affected by: C ₂ H ₆ , C ₂ H ₄ , C ₂ H ₂ , CO ₂ , H ₂ No O ₂ measurement in He	Additively affected by: C ₂ H ₂ , H ₂ , NO	Additively affected by: SO ₂ , NO ₂ , H ₂ Negatively affected by: Cl ₂

- 1) Response times can be quicker if calibration adapter or docking station is used.
- 2) This range of measured values is known as capture range where minor measured value fluctuations (e.g. signal noise, concentration fluctuations) does not result in a changing display. Measured values outside the capture range are displayed using their actual measured values. By using Dräger CC-Vision the set capture range can be read out and activated/deactivated. The capture range is continuously activated in measuring mode and is disabled in calibration mode.

Environmental conditions (operation and storage) of DrägerSensors XXS:

Temperature: -30 °C to +55 °C (short time -40 °C)
Pressure: 700 hPa to 1300 hPa
Humidity: 10 % RH to 90 % RH, non-condensing

Environmental conditions (operation and storage) of Pac 6500: -
30 °C to +55 °C (operation -10 °C to +40 °C is covered by
EN 45544).

If H₂S sensor is used for general gas detection in scope of
standard EN 45544-3 (for safety warning, leakage detections)
during longer term exposure (more than 10 minutes) the deviation
can be higher as the limits specified in the standard.



EU-Konformitätserklärung
EU-Declaration of Conformity



Dokument Nr. / Document No. SE23949-02

Wir / we Dräger Safety AG & Co. KGaA, Revalstraße 1, 23560 Lübeck, Germany

erklären in alleiniger Verantwortung, dass das Produkt
declare under our sole responsibility that the product

Gasmessgerät Typ MOG 00** (Pac 6*00 / 8*00)
Gas Detection Instrument type MOG 00** (Pac 6*00 / 8*00)

mit der EU-Baumusterprüfbescheinigung / Expertise
is in conformity with the EU-Type Examination Certificate /
Expertise

KIWA 19 ATEX 0031
DNV GL MEDB00004SA ¹⁾

ausgestellt von der notifizierten
Stelle mit der Kenn-Nr.
issued by the Notified Body
with Identification No.

Kiwa Nederland B.V.
Wilmerdorf 50
7300 AC Apeldoorn
Netherlands
0620

DNV GL SE
Brooktorkai 18
D-20457 Hamburg
0098

und mit den folgenden Richtlinien unter Anwendung der aufgeführten Normen übereinstimmt
and is in compliance with the following directives by application of the listed standards

Bestimmungen der Richtlinie provisions of directive		Nummer sowie Ausgabedatum der Norm Number and date of issue of standard
2014/34/EU	ATEX-Richtlinie ATEX Directive	EN IEC 60079-0:2018, EN 60079-11:2012
2014/90/EU ¹⁾	Schiffsausrüstungs-Richtlinie Marine Equipment Directive	EN 60079-0:2012+A11:2013, EN 60079-11:2012, EN 50104:2010, IEC 60092-504:2016, IEC 60945:2002+A1:2008, IEC 60533:2015
2014/30/EU	EMV-Richtlinie EMC Directive	EN 50270:2015+AC:2016 (susceptibility: type 2, emission: type 1)
2011/65/EU	RoHS-Richtlinie RoHS Directive	EN 50581:2012

¹⁾ gilt nur für Pac 6500 mit O₂-Sensor / only applicable to Pac 6500 with O₂-Sensor.

Überwachung der Qualitäts-
sicherung Produktion durch
Surveillance of Quality Assurance
Production by

DEKRA Testing and
Certification GmbH
Handwerkstr.15
D-70565 Stuttgart
0168

DNV GL SE
Brooktorkai 18
D-20457 Hamburg
0098

Zertifikat-Nr.:
Certificat No.:

MEDD00000TF

Lübeck, 2019-10-24

Ort und Datum (jjjj-mm-tt)
Place and date (yyyy-mm-dd)

Dr. Marcus Rombe
Head of Electronic Engineering
Head of Product Qualification
Safety Products
Connect & Develop

Muss aktualisiert werden