

# Dräger Pac® 8000 Single-Gas Detector

With the robust Dräger Pac® 8000, you'll be well equipped for tough conditions: this non-disposable, personal single-gas detection device is a reliable and precise instrument, which detects hazardous concentrations of twenty nine different gases, including special gases like NO<sub>2</sub>, O<sub>3</sub> or COCl<sub>2</sub>.



# **Benefits**

#### Strong performance for maximum safety

You can count on the Dräger Pac 8000 to give you reliable, precise readings at any time even in extreme conditions. Our powerful sensors with a low t-90 response time ensure quick reactions. In addition to the standard alarms, you can define extra alarm thresholds for TLV\*\* and STEL\*.

\* TLV® = Threshold Limit Values, STEL = Short Term Exposure Limit

#### Sensors for special gases

The Dräger Pac 8000 performs especially well when detecting a variety of special gases. The Pac 8000 can be fitted with sensors for carbon dioxide (CO<sub>2</sub>), chlorine gas (Cl<sub>2</sub>), hydrogen cyanide (HCN), ammonia (NH<sub>3</sub>), nitrogen dioxide (NO<sub>2</sub>), phosphine (PH<sub>3</sub>) and organic vapors (OV or OV-A).

Further demonstrating the capabilities of Dräger gas detectors is that the Dräger Pac 8000 performs especially well when detecting other gases as well. It can detect ozone (O<sub>3</sub>) from concentrations as low as 0.02 ppm and phosgene (COCl<sub>2</sub>) from 0.01 ppm. The Pac 8000 detects nitrogen dioxide (NO<sub>2</sub>) from concentrations as low as 0.04 ppm.

#### Robust design - even for the toughest conditions

The Pac 8000 can easily handle even extreme conditions. The sensors can tolerate air pressures between 700 and 1,300 mbar. A membrane filter protects the sensor from foreign matter such as dust and liquids. The shock-proof, chemical-resistant housing meets the requirements specified by the IP68 standard rating.

#### Easy handling thanks to clear user guidance

The D-Light indicates whether the functionality of the device has been tested and that it is ready to use. The housing is also designed with your safety in mind: each sensor variant of the Dräger Pac 8000 features clear, easily visible color coding, thereby minimizing the chance of mistakes.

# User-friendly display with all important information

The large display clearly indicates the respective gas concentration. Other important information, such as the unit of concentration and battery capacity, is also displayed. The bright backlighting ensures that all values can be clearly read in the dark.

# **Benefits**

#### 360° alarm with various functions

If the Dräger Pac 8000 measures hazardous gas concentrations, it sets off an audible, visual and noticeable vibrating alarm. Two bright, flashing LEDs on the top and bottom of the device ensure that the alarm is easily visible from all sides. The acoustic signal reaches a volume of 90 dB. The display can show the peak concentration measured at any given moment. Earlier alarms registered can also be retrieved at a later time, even if acknowledged.

### Data logger and event logger for analyses and reports

The Pac 8000 logs concentrations and events along with date and time. The data can be downloaded to a PC via an interface and processed further there.

#### **Economical operational costs**

All of the versions of the Dräger Pac 8000 are equipped with extremely durable Dräger sensors and a powerful battery.

The Pac 8000 is protected against water, dust and other foreign bodies by a special membrane filter. When the filter becomes heavily soiled in use, you can quickly and easily replace it yourself. The device is then ready to use again in no time.

#### Fast function test saves time and money

Function tests and calibrations can be carried out especially efficiently in the Dräger X-dock® calibration station. The automatic bump tests in the X-dock are a cost-efficient and convenient solution thanks to short test duration and the extremely low test gas consumption. The Pac 8000 is simply placed in the bump test station and automatically selects the correct setting.

# Dräger Pac® product range at a glance

|                                  | Dräger Pac® 6000 | Dräger Pac® 6500 | Dräger Pac® 8000 | Dräger Pac® 8500   |
|----------------------------------|------------------|------------------|------------------|--------------------|
| Limited operating time (2 years) | •                |                  |                  |                    |
| Unlimited operating time         |                  | •                | •                | •                  |
| Service life indicator           | •                | ( • )¹           | (•) <sup>1</sup> | ( • ) <sup>1</sup> |
| Temperature to -40°C             | •                | •                |                  |                    |
| Battery capacity indicator       | •                | •                |                  | •                  |
| Replaceable sensor grid          |                  | •                | • 2              | •                  |
| Peak                             | •                |                  | •                | •                  |
| TWA-TLV® <sup>3</sup>            |                  | •                | •                | •                  |
| STEL <sup>4</sup>                |                  | •                | •                | •                  |
| Event logger                     | •                | •                | •                | •                  |
| Data logger                      | •                | •                | •                | •                  |
| Standard gases                   |                  |                  |                  |                    |
| Special gases                    |                  |                  | •                |                    |
| Dual sensor                      |                  |                  |                  | •                  |

# System Components



# DrägerSensor® XXS

Dräger has developed miniature electrochemical sensors specially for the Dräger Pac® and X-am® 1/2/5 generation gas detectors. The sensors detect many different gases and vapors. They are also very reliable and stable over the long-term, thereby reducing your operating costs.

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# System Components



## Dräger X-dock® 5300/6300/6600

Automatic bump tests, calibration, reduced test gas consumption, short testing times, and comprehensive documentation come standard in this new device from Dräger, the experts in gas detection.



## **Dräger Bump Test Station**

The Bump Test Station is easy to use, stand-alone and flexible. In this regard, function tests of gas detection and warning devices can be carried out easily and independently of the location.

# Accessories



## **Dräger Configuration and Evaluation Software**

Tailor-made Dräger software makes saving measurement results, professionally configuring gas detection instruments, and viewing performance data possible.

# Accessories



### Calibration gas and accessories

For the safe operation of devices, applicable regulations and statutory provisions are to be met and complied with. Therefore, regular calibrations and function tests are necessary. Different systems are available so that products meet a wide range of calibration requirements.



# **Calibration Adapter**

The communication module (including USB cable) is used to connect the equipment to the configuration and evaluation software. The module is also used for the manual bump test or manual calibration. The test gas is introduced to the Pac device through the gas inlet or outlet.

# Services



### **Dräger Service**

When your operation's safety equipment is backed by over 125 years of experience and supported by the same team that engineered it, you can rely on service and rental solutions that are tailored to meet your unique needs. With Dräger's safety solutions, you get complete peace of mind, budget security, and full-service support that you can count on every step of the way. That's the Dräger Service Advantage.

# Related Products



## Dräger Pac® 6000

The Dräger Pac® 6000 disposable personal gas detector measures CO,  $H_2S$ ,  $SO_2$  or  $O_2$  reliably and precisely, even in the toughest conditions. The robust design, quick sensor response times, and a powerful battery ensure maximum safety for up to two years with virtually no maintenance required.



#### Dräger Pac® 6500

The robust Dräger Pac® 6500 is your reliable companion under tough conditions. The personal single-gas detection device measures CO,  $H_2S$ ,  $SO_2$  or  $O_2$  quickly and precisely. Quick sensor response times and a replaceable battery also ensure safety.



# Dräger Pac® 8500

The Dräger Pac® 8500 single-gas detection device is a reliable and precise instrument even under the toughest of conditions. The detector can be equipped with a hydrogen-compensated CO sensor or a Dräger dual sensor. The dual sensors provide the option of measuring two gases at once: either  $H_2S$  with CO or  $O_2$  with CO.

# **Technical Data**

# Dräger Pac® 8000

| Dimensions (without clip) (W x H x D) | 2.5 x 3.3 x 0.8 in, 64 x 84 x 20 mm                             |  |  |
|---------------------------------------|---|--|--|
| Weight                                | Approx. 3.7 ounces, 106 g (4.0 ounces,113 g with clip)          |  |  |
| Battery service life                  | Min. 2 years (O <sub>2</sub> and dual sensors min. 12 months)   |  |  |
| Degree of protection                  | IP68  |  |  |
| Air pressure                          | 700 to 1,300 hPa  |  |  |
| Air humidity                          | 10 to 90% relative humidity, non-condensing                     |  |  |
| Temperature                           | -22 °F to 131 °F, -30 °C to +55 °C                              |  |  |
|                                       | (briefly down to -40 °F / -40 °C for 1 hr, depending on sensor) |  |  |
| Approvals                             | cCSA <sub>us</sub> , IECEx, ATEX, CE                            |  |  |

# Ordering Information

## Dräger Pac® 8000

| Description  | Measuring range                     | Alarm thresholds<br>A1/A2 | Order number |  |
|--|-------------------------------------|---------------------------|--------------|--|
| Dräger Pac® 8000 NO  | 0 – 50 ppm                          | 25 / 50 ppm               | 83 26 350    |  |
| Dräger Pac® 8000 CO <sub>2</sub>                               | 0 – 5 Vol.%                         | 0.5 / 1 Vol.%             | 83 26 351    |  |
| Dräger Pac® 8000 Cl <sub>2</sub>                               | 0 – 20 ppm                          | 0.5 / 1 ppm               | 83 26 352    |  |
| Dräger Pac® 8000 HCN   | 0 – 50 ppm                          | 2.5 / 4.5 ppm             | 83 28 276    |  |
| Dräger Pac® 8000 NH <sub>3</sub>                               | 0 – 300 ppm                         | 25 / 50 ppm               | 83 28 277    |  |
| Dräger Pac® 8000 PH <sub>3</sub>                               | 0 – 20 ppm                          | 0.1 / 0.2 ppm             | 83 26 355    |  |
| Dräger Pac® 8000 OV  | 0 – 200 ppm                         | 10 / 20 ppm               | 83 26 356    |  |
| Dräger Pac® 8000 OV-A  | 0 – 200 ppm                         | 10 / 20 ppm               | 83 26 357    |  |
| Dräger Pac® 8000 NO <sub>2</sub>                               | 0 – 50 ppm                          | 2.5 / 5 ppm               | 83 28 275    |  |
| Dräger Pac® 8000 Ozone   | 0 – 10 ppm                          | 0.1 / 0.2 ppm             | 83 26 359    |  |
| Dräger Pac® 8000 Phosgene                                      | 0 – 10 ppm                          | 0.1 / 0.2 ppm             | 83 26 360    |  |
| Dräger Pac® 8000/8500  | As per customer request             | As per customer request   | 83 26 342    |  |
| Calibration accessories  |                                     |                           |              |  |
| Calibration adapter  |                                     | 83 18 588                 |              |  |
| Dräger X-dock® 5300 Pac  |                                     | 83 21 881                 |              |  |
| Dräger Bump Test Station for Dräger Pac®, without gas cylinder |                                     | 83 17 410                 |              |  |
| Dräger Bump Test Station for Dräger Pac®,                      |                                     | 83 18 586                 |              |  |
| including one test gas cylinder                                | (gas and concentration selectable)  |                           |              |  |
| Communication accessories                                      |                                     |                           |              |  |
| Dräger CC-Vision Basic, availab                                | ole free of charge at www.draeger.c | com                       |              |  |
| Communication module, including USB cable                      |                                     | 83 18 587                 |              |  |
| Replacement parts  |                                     |                           |              |  |
| Battery  |                                     | 83 26 856                 |              |  |
| Sensor grid (silver)   |                                     | 83 26 852                 |              |  |
| Crocodile clip set   |                                     | 83 19 186                 |              |  |
| TLV® is a registered trademark of                              | of ACGIH®.                          |                           |              |  |

Notes

Notes

# 91 05 294 | 18.02-2 | HQ | PP | Subject to modifications | © 2018 Drägerwerk AG & Co. KGaA

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