Dräger X-zone® 5500 – Portable gas detection system for flexible area monitoring

State-of-the-art area monitoring – the Dräger X-zone® 5500 in combination with the Dräger X-am® 5000, 5100 or 5600 gas detection instruments can be used for the measurement of up to six gases and extends the portable gas detection technology to a unique system with many applications

D-27592-2009

INNOVATIVE AREA MONITORING

The Dräger X-Zone® 5500 transforms the Dräger personal gas detection instruments X-am® 5000, 5100 and 5600 into innovative area monitoring devices for a wide range of applications. A patented combination for increased safety – in addition to the personal air monitors carried on the body, these area monitors are positioned where gas hazards are expected.

CLEAR WARNING

Even from a distance, the illuminated green LED ring indicates that the air is free of toxic and combustible gases. Upon detection of gas hazards, the LED color changes from green to red, thus providing a clear visual warning that gas is present. Additionally, a loud and highly audible evacuation alarm is emitted. The Dräger X-zone 5500 gas entry is located that the gas can diffuse into the Dräger X-am 5000, 5100 or 5600 from all sides.

WIRELESS FENCELINE

Up to 25 Dräger X-Zone 5500 can be automatically interconnected to form a wireless fenceline. The interconnection of the area monitoring devices allows for rapid establishment of safety networks for larger areas. A Dräger X-zone 5500 detecting a gas alarm transmits the alarm signal to all interconnected units. A red flashing master alarm in the mother unit detecting gas contrasts with red/green flashing alarms of the connected daughter units providing simple recognition of alarm status and the actual location of the hazard.

With the corresponding configuration, the maximum gas concentration in the monitored area is shown on the display. Combined with the display of the X-zone ID a clear containment of the hazard area is possible.

CONTINUOUS OPERATION FOR UP TO 120 HOURS

The 24 Ah battery of the Dräger X-zone 5500 provides up to 120 hours of continuous operation – a complete working week.

D-4946-2014

Dräger X-zone® 5500
Front view

D-4943-2014

Dräger X-zone® 5500
Back view

DRÄGER X-ZONE 5500

360° Gas Entry

Dräger X-am 5000/X-am 5600/
X-am 5100

Carrying handle

Status LED lights

360° LED illuminated ring

Alarm amplifier with 360° alarms

Battery (24 Ah)

D-4946-2014

OTHER BENEFITS
– 360°- gas entry
– Approval for Ex-Zone 0 (with Switch On
  or Switch Off for Ex-Zone 1)
– daily function test and calibration not
  required after single on-site testing
– individually configurable with the
  Dräger CC-Vision PC software
  (e.g. alarm frequency)
– inductive charging station: easy and
  convenient non-contact charging

DATA INTERFACE MODBUS
– Integration in a control room system
– Connection to external displays, such
  as Dräger RVP 5000

OPTIONAL: DRÄGER SWITCHING STATION X-ZONE SWITCH ON OR SWITCH OFF
The accessory Switch On or Switch Off box provides a cost-effective, fast and
easy way of increasing safetyduring external work in Ex-zone 1. In the event
of an alarm, the Switch Off box automatically cuts off the power supply in just
seconds, for instance, to a welder. In the case of danger, the Switch On box
responds immediately by activating, for instance, a traffic light for access control
or a fan for ventilation. The corresponding switching station can be easily connected
to the Dräger X-zone 5500 via the potential-free alarm contact.

D-6704-2011

Dräger X-zone® Switch Off

D-6741-2011

Dräger X-zone® Switch On

SIMPLY CONNECTED – INFORMED EVERYWHERE

The new Dräger X-zone® 5500 with X-zone Com GSM module, sends all data and alarms to your location – by email, SMS and to the Cloud.

THE MORE SECURE TYPE OF AREA MONITORING

Time, place and gas concentration are the most important data in the event of a gas leak. In an emergency, every second counts. Therefore we have developed a more efficient and significantly safer type of area monitoring with the Dräger X-zone 5500, including X-zone Com. With these you can receive and view the measured data and alarms outside of the danger zone.

THE NEW X-ZONE COM GSM-MODULE

This module allows you to access the Dräger X-zone 5500 data wirelessly over the GSM network. Be it status requests or alerts via SMS using a periodic delivery of data via e-mail to a FTP server or a cloud service – the X-zone Com GSM module sends all data directly to the device of your choice.

In combination with an X-zone Com up to 15 Dräger X-zone can automatically connect themselves to a wireless alarmchain to accurately and comprehensively monitor large areas. For this only a single X-zone Com is required to retransmit the data of the entire chain. All relevant information such as maximum values of the measured gas type will reach those responsible within seconds.

ADDITIONAL FUNCTIONS

On the laptop data of the Dräger X-zone 5500 group can also be displayed via Bluetooth®. With the integrated GPS module, the position of the X-zone Com and thus the location of the hazard source is transmitted. A data logger continuously stores the measured values. This ensures that no data is lost. Analysis of trends are simply in the cloud possible.
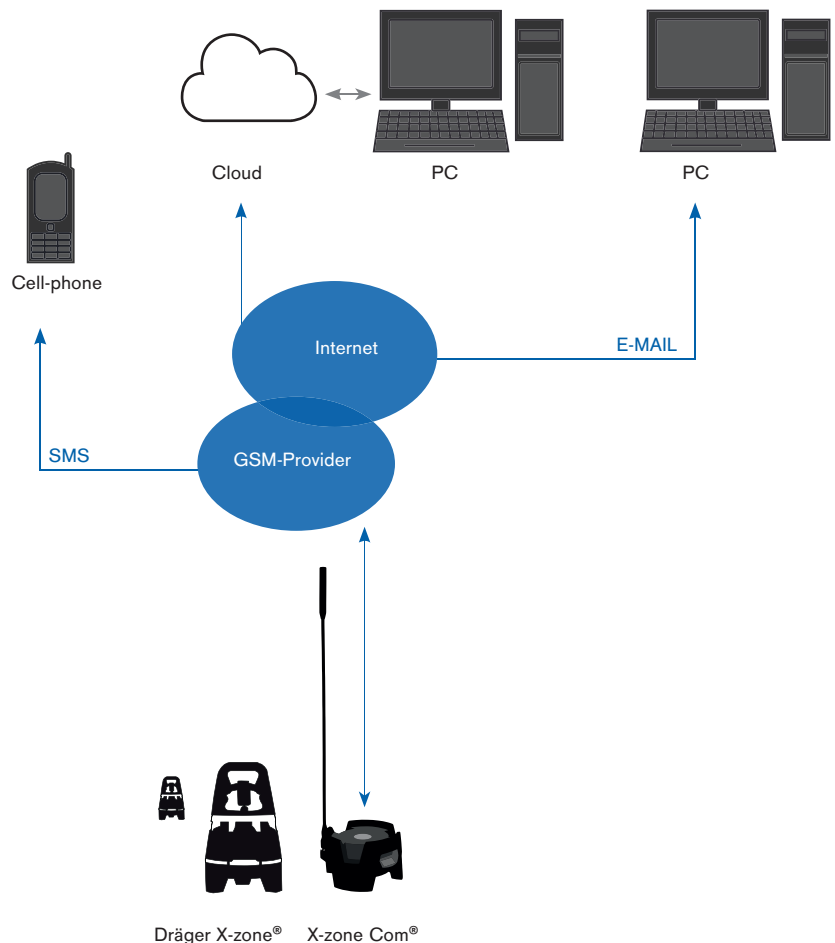
Thus, all important measures covering evacuation and protection as well as the elimination of the problem and the resumption of work can be implemented quickly, efficiently and, above all, safer.

Dräger X-zone® 5500 with X-zone Com®

THE COMMUNICATION PRINCIPLE OF THE X-ZONE COM

Cloud   PC   PC

Cell-phone

Internet

E-MAIL

SMS   GSM-Provider

Dräger X-zone®   X-zone Com®

TECHNICAL DATA

Dräger X-zone® 5500

Dimensions (W × H × D)	490 × 300 × 300 mm 20 × 12 × 12 in.
Weight	10 kg (22 lbs.) (24 Ah battery)
Ambient conditions	Temperature max. +40 °C; max. 104 °F Pressure 700 to 1,300 hPa Humidity 10 to 95 % r.h.
Ingress Protection	IP 67
Alarm	Visual 360° LED (illuminated ring) Audible 360°; > 108 dB in a distance of 1 m (30 ft.), 120 dB in a distance of 30 cm (1 ft.) Configurable alarm patterns, frequencies and volumes
Life signal	Green status display (360°), illuminated ring (LED)
Operating time	Approx. 120 h (24 Ah battery) Depending on sensor equipment / configuration of the life signal
Charging time	Approx. 14 h Flexible power supply: External 100 – 240 V charger (worldwide) or inductive wireless charger
Pump operation	Maximum hose length: 45 m (150 ft.)
Alarm output	Potential-free alarm contact for intrinsically safe circuits (6-pole); < 20 V to 0.25 A (0.15 A constant current); Resisting load
Radio transmission	Worldwide license-free ISM frequencies Digital radio, robust and interference-free transmission up to 100 m (656 ft.)
RF approvals	868 MHz (EU, Norway, Switzerland)

Approvals	ATEX I M1 Ex ia I Ma
	           II 1G Ex ia IIC T3 Ga
	           II 2G Ex ia d IIC T4 Gb
	IECEx Ex ia IIC T3 Ga
	           Ex ia d IIC T4 Gb
	           Ex ia I Ma
	CSA/US Class I, zone 0, AEx ia IIC T3 Ga (Approval pending)
	           Class I, zone 1, AEx ia d IIC T4 Gb

X-zone Com®

Dimensions (W × H × D)	360 × 360 × 240 mm (mit X-zone® 360 × 360 × 610 mm)
Weight	7 kg
Protection class	IP67 (with closed ports)
ATEX-Label	ATEX II 2G Ex ib [ia IIC Ga] IIB T4 Gb
Temperature range	battery operation: -10 °C – +40 °C charging/line operated: 0 °C – +30 °C
Battery	13,5 Ah NiMh, 12 V DC
Data storage	8 MB, 270.000 data sets
Communication	Bluetooth® class 1 GSM/GPRS Telit Modem antenna dual band 900/1800 MHz
Interfaces	RS485 connection to X-zone® RS232 connection to PC Connection to Dräger Switch On/Switch Off
GPS receiver	

ORDER INFORMATIONEN

Dräger X-zone® 5500	Part-No.
Dräger X-zone® 5500, 868 MHz, 24 Ah battery with diffusion cap	83 24 819
Dräger X-zone® 5500 with integrated pump, 868 MHz, 24 Ah battery with diffusion and pump cap	83 24 821
Gas supply adapter	83 23 314
Alarm damper	83 20 110
Socket, 25 cm high (12 in.)	83 20 645
Set: cap for Dräger X-am® 5100; for X-zone® with pump	83 23 938

Charging accessories	
Inductive charger	83 22 080
Plug-in charger	83 20 749

Pump accessories	
Float probe with 5 m or 16.4 ft. FKM hose	83 18 371
Hose set (consisting of water trap, dust and water filter)	83 21 527
Hose, electronically conductive	11 80 681
FKM hose, solvent-resistant	12 03 150
Tygon® hose	83 20 395

Communication accessories	
Dräger CC-Vision	www.draeger.com
USB DIRA with USB cable	83 17 409

Optional equipment	
Dräger X-zone® Switch Off	83 22 260
Dräger X-zone® Switch On	83 22 270

X-zone Com® GSM-Module	
X-zone Com®	83 24 383
Cloud license 1 year	83 25 346
Cloud license 3 years	83 25 347

External Display	
Dräger RVP 5000	SC 00 090
Dräger RVP 5000 with data logger	SC 00 091
Dräger RVP 5000 with web server and data logger	SC 00 092

Socket
For measurements of light gases

Float probe
with 5 m viton hose

X-zone Com®

RVP 5000