Dräger X-zone® 5500
with Advanced 3D Communications

Dräger's X-zone® 5500 reinvented area monitoring gas detection. Now, with the addition of Dräger's X-zone® 5500 advanced 3D communications you have the ability to transmit key data to a workstation situated anywhere in the world. Especially designed to function in the harshest of operating environments, the Dräger X-zone® 5500 with advanced 3D communications is particularly suitable for use in Oil & Gas, Chemical and Emergency HazMat applications.

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GAS DETECTION DATA TRANSMITTED WHERE YOU NEED IT

The Dräger X-zone® 5500 with advanced 3D communications simply enables the data from a Dräger X-zone® 5500 unit to be transmitted via radio signal to a PC-based workstation up to 3 miles away. This distance can be easily extended by using strategically located radio signal repeaters. The data can then be transferred from the workstation to other PCs in a network, through cloud based technology, and can even be sent to a cellphone using SMS (text message).

ENHANCED RADIO SIGNAL PENETRATION

The Dräger X-zone® 5500 with advanced 3D communications transmits the data at a frequency of between 902 and 928 MHz, which has been tested in the field to provide an excellent level of signal penetration. This means that fewer transmitting radios need to be deployed in order to ensure stable and reliable cross-site coverage.

RAPID SENSOR RESPONSE TIME

At the heart of the Dräger X-zone® 5500 you will find a Dräger 5000 Series X-am multi-gas detection device which is a 1 to 6-gas detector that reliably measures combustible gases and vapors as well

as O_2 and harmful concentrations of Amines, Cl_2, CO, CO_2, $COCl_2$, H_2, H_2S, HCN, NH_3, NO, O_3, Odorants, NO_2, PH_3, SO_2 and organic vapors. This device exclusively uses Drägersensor® ensuring some of the fastest sensor reaction times on the market.[1]

SENSOR TIME COMPARISON

Sensor	Competitor T_{90} Specification [2]	Specified Drager T_{90} [3]
H_2S	< 30 s	15 s
LEL	< 30 s	20 s
CO	< 30 s	15 s
O_2	< 15 s	10 s
NH_3	< 90 s	20 s
Cl_2	< 30 s	30 s
SO_2	< 60 s	15 s

[1] Dräger gas detection technology offers one of the fastest sensor response times based upon published literature available in the market.

[2] One competitor's published data is used as an illustrative example.

[3] T_{90} Specification as of April 2016, refer to Dräger sensor data sheet for up to date information.

HIGHLY FLEXIBLE FENCELINE CONFIGURATIONS

Each Dräger X-zone® 5500 fenceline can consist of up to 15 connected devices. With only one of those devices fitted with the Dräger X-zone® 5500 with advanced

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Dräger X-zone® 5500
with advanced
3D communications
transmitting radio

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PC connected to receiving radio

3D communications, critical data about the entire fenceline, or specifically targeted Dräger X-zone® 5500 units, can be transmitted back to the PC workstation receiver radio. Each receiver radio can receive data from up to 24 individual receiver radios, each transmitting radio either able to transmit the data from the individual device to which it is attached or data concerning the entire fenceline of which it is a part of. To add to that, each workstation is able to have 256 receiving radios working from it, meaning that data from up to 6,144 Dräger X-zone® 5500 devices (or fencelines) can be managed from just one workstation.

PROPRIETARY PC-BASED WORKSTATION SOFTWARE AND DATA LOGGING

All of the data that is transmitted to the receiving radio can be clearly and easily viewed using a standard PC computer, thanks to Dräger's X-zone® 3D software. Such data as gas levels, X-zone battery levels, and gas alarm information can be monitored in real-time at a remote location. Additionally, the software automatically stores all of the measured values for review, export to other software systems, and analysis.

SECURE NETWORKING

Communication between the receiving and transmitting radios is secured with proprietory protocols thereby reducing the opportunity for computer viruses to invade your network.
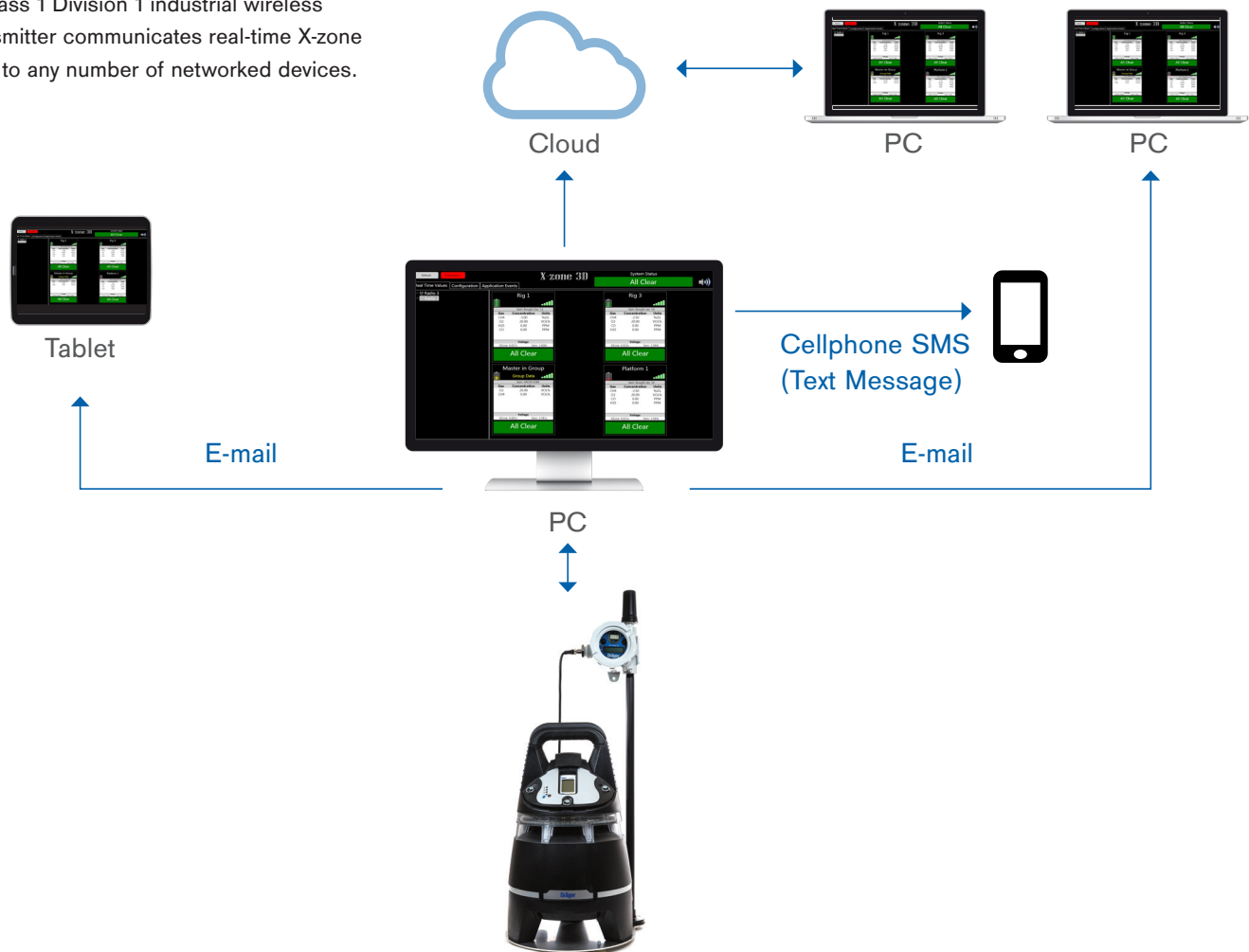
INTUITIVE DEPLOYMENT

The Dräger X-zone® 5500 units are easy to set up and deploy and require minimal training, thereby allowing your workforce to continue with the job at hand confidently knowing that their safety and well-being are protected. The system is IP67 rated and can easily face the challenges posed by the inclement weather conditions.

COMPREHENSIVE PORTFOLIO OF SERVICING OPTIONS

Total peace of mind can be assured by choosing from one of Dräger's warranty, service and maintenance packages.

THE COMMUNICATION PRINCIPLE OF THE DRÄGER X-ZONE® WITH ADVANCED 3D TECHNOLOGY

A Class 1 Division 1 industrial wireless transmitter communicates real-time X-zone data to any number of networked devices.

Cloud

PC

PC

Tablet

E-mail

Cellphone SMS (Text Message)

E-mail

PC

DRÄGER X-ZONE 3D®

Dräger X-zone 3D®
wireless transmitter

Dräger X-am® 5000/X-am® 5100/
X-am® 5600

360° LED illuminated ring

Battery (24 Ah)

360° Gas Entry

Carrying handle

Status LED lights

Alarm amplifier with 360° alarms

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	-20°C to +50°C (-4°F to 122°F) Pressure 700 to 1,300 hPa Humidity 10 to 95% r.h.
Ingress Protection	IP67
Alarm	Visual 360° LED (illuminated ring) Audible 360°; > 108 dB in a distance of 1 m (39 in.), 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 (328 ft.)
RF approvals	915 MHz (USA, Canada)

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
	            Class I, zone 1, AEx ia d IIC T4 Gb

Dräger X-zone® 5500 with advanced 3D communication transmitting radio module

Dimensions (W × H × D)	145 × 125.5 × 127 mm 5.7 × 4.9 × 5 in.
Weight	2.1 kg (4.6 lbs.)
Protection class	IP68 (with closed ports)
Approvals	Class I, Div 1, Group A, B, C, D Class II, Div 1, Group E, F, G
Temperature range	-40°C to +70°C (-40F to 158F)
Battery	19 Ah D-cell Li-SOCl2, 3.6 V
Radio transmission	902–928 MHz license free ISM frequencies FHSS modulation, up to 4.8 kilometers (3 miles)
Transmit Power	21 dBm (150 mW) conducted
Interface	RS485 connection to X-zone®

For more in depth technical descriptions concerning the X-am series of portable gas detection and the X-zone area monitoring devices, please refer to their respective product information datasheets.

Minimum PC requirements for use with X-zone 3D®

Operating system	Windows 7 Professional, Windows 8.x, Windows 10
CPU	Intel® or AMD dual-core processor @ 2.0 GHz
Memory	4 GB RAM
Storage	500 GB hard drive
USB	One available USB 2.0 port (for wireless receiving radio)
Display	1,280 × 1,024 minimum display resolution
Sound	Speaker required for local alarm notifications
Peripherals	Mouse or touch-capable display
Connectivity	Wired Ethernet or 802.11 wireless, Internet connectivity required to utilize email and text messaging features

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Intel is a registered trademark of Intel, Inc.

AMD is a registered trademark of AMD, Inc.

ORDER INFORMATION

Dräger X-zone® 5500	Part-No.
Dräger X-zone® 5500, 915 MHz, 24 Ah battery with diffusion cap	83 24 823
Dräger X-zone® 5500 with integrated pump, 915 MHz, 24 Ah battery with diffusion and pump cap	83 24 825
X-zone® 5500 bump test adapter	83 23 314
Alarm damper	83 20 110
Leg extender stand, 25 cm high (10 in.)	83 20 645
Set: cap for Dräger X-am® 5100; for X-zone® with pump	83 23 938
Electrolube, contact protectant, 2 ml	83 24 826
Set pin block	83 25 323

Charging accessories	
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
FKM black hose, solvent-resistant (per foot)	12 03 150
Float probe	68 02 337
Sampling hose, clear Tygon® (per foot)	45 94 707
Tubing connector, X-am® 1/2/5000 pump	45 94 588
Filter replacement, X-am® 1/2/5000 pump	45 43 759

Communication accessories	
Dräger CC-Vision	www.draeger.com
USB DIRA with USB cable	83 17 409
Starter Kit (Consisting of Receiving Radio, Transmitting Radio, Mounting Kit, 2 m Cordset, USB Com Cable)	SC27500
Transmitting Radio Add on Kit w/ Mounting Bracket (includes mounting kit and 2 m cordset)	SC27501
Transmitting Radio Add on Kit w/o Mounting Bracket (includes 2m cordset)	SC27502
Receiving Radio Add/on Kit (includes USB Com Cable)	SC27503
Receiving radio, 900 MHz	SC27504
Transmitting Radio, 900MHz	SC27505
Cordset between Radio and X-Zone. 2 meter (6.6 ft)	SC27506
Cordset between Radio and X-Zone. 8 meter (26.3 ft)	SC27507
Cordset between Radio and X-Zone. 15 meter (49.2 ft)	SC27508
Adapter cable from Master Receiving Radio to USB	SC27509
Spare Battery for Transmitting Radio	SC27510
Mounting Kit to mount Transmitting Radio to X-Zone Base	SC27511

Tygon is a registered trademark of Saint-Gobain.

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