

Dräger Polytron® 7000 Fixed Gas Detector

The Dräger Polytron® 7000 gas detector can satisfy all toxic gas and oxygen measurement applications on a single platform. It meets compliance requirements, as well as the high specification requirements of customized solutions.

Large Display

34 x 62 mm, 64 x 128 pixel 1.3" x 2.4"

Quick Lock mechanism

One half turn – locked

Simple 3 button operation and navigation

Graphics, icons and real text descriptions

Polytron Docking station

Durable GRP housing



Benefits

Intuitive operation

Dräger developed the simple and structured operation concept of the Polytron 7000 in collaboration with its customers. The big graphic display shows status information with the help of pictograms and plain text and guides the user through calibration and configuration.

Intelligent sensors

The Dräger Polytron 7000 can measure 100 different gases. The DrägerSensors that were specifically developed for year round, permanent use in a stationary gas detection systems are known for their long life time and the excellent measuring quality. The built-in sensor data memory contains all the relevant information. This allows for the use of pre-calibrated sensors so that the Dräger Polytron 7000 can be used as a virtually maintenance free transmitter.

Communication interfaces

If desired, a 4 to 20 mA signal, HART®, LON, PROFIBUS® or FOUNDATION Fieldbus™, can take over the link between the Dräger Polytron 7000 and the control system. The modular design allows for the subsequent retrofit onto one of the mentioned interfaces.

Software options

With three different software dongles, different functions can be built into the transmitter that adjust it to requirements specific to its use. With the sensor test dongle, the Dräger Polytron 7000 performs many different patented sensor tests that ensure the reliability and functionality of the sensor and the gas detection system. With the new sensor diagnosis function (including the sensor test), operational demands and the remaining sensor life time is estimated so that maintenance and exchange schedules can be created. A data and event saving option is integrated into the data dongle. This saves the measured values and events such as alarms and warnings. The data can be downloaded onto a PDA m515-Ex via an IR interface and evaluated on a PC with the Dräger GasVision software packet. At the push of a button, a 15 minute concentration history is shown on the transmitter display.

Robust enclosure

The design of the compact, impact-resistant, fiber-glass reinforced plastic enclosure is guarded against dust and splashing in accordance with (IP66/67). The transmitter has been approved according to the SIL 2 specification and it offers highest resistance to electromagnetic interferences.

Pump module

An internal pump that sends the gas mixture to the sensor is a further module option. The pump is an integral part of the Dräger Polytron 7000. Not to be used in hazardous areas.

Benefits

Relay module

The Dräger Polytron 7000 can be equipped with a relay module. It can thus be used as an independent gas detection system with two concentration alarms and one interference alarm. Not to be used in hazardous areas.

System Components



D-27777-2009

Dräger REGARD® 3900

The Dräger REGARD® 3900 is a standalone control system for the detection of toxic gases, oxygen levels, and Ex hazards. The control system is fully configurable between 1 and 16 channels, depending upon the type and quantity of input/output boards installed.



ST-3831-2003

Electrochemical (EC) DrägerSensors®

When you need to selectively measure the smallest concentrations of airborne toxic gases and oxygen under ambient conditions, Electrochemical DrägerSensors are your answer. These long-life EC sensors for Dräger transmitters offer fast response times, high accuracy, and unmatched stability.

System Components



ST-335-2004

Dräger REGARD®-1

The Dräger REGARD®-1 is a standalone single-channel control system for the detection of toxic and Ex hazards and oxygen levels. The control system is fully configurable for a single input from either a 4 to 20 mA transmitter or a Dräger Polytron® SE Ex measuring head.



D-6806-2016

Dräger REGARD® 7000

When you need to monitor and analyze a number of various gases and vapors, the Dräger REGARD® 7000 is a modular and highly expandable analysis tool. Suitable for gas warning systems with various levels of complexity and numbers of transmitters, the Dräger REGARD® 7000 is exceptionally reliable and efficient. An additional benefit is the system's backward compatibility with the REGARD®.

Accessories



ST-3809-2003

Docking station

For the easy and time-saving mounting and commissioning of the Dräger Polytron 3000 or 7000. It is required for each Polytron 3000 or 7000.
Order No.: 83 17 990

Accessories

ST-5621-2006



Dräger Remote Sensor

For the remote operation of the sensor at a distance of up to 30 m. Suitable for wall and duct mounting depending on the accessories used.

Order No.: 83 17 275

ST-5732-2006



Duct mount kit

Enables the mounting of the Dräger Polytron 7000 onto exhaust ducts or pipes. With 90° swings, the transmitter can be put into a user-friendly position.

Order No.: 83 17 150

D-344925-2009



GasVision

Control software for Data dongle information (data logger)

Order No.: 83 14 034

ST-5694-2006



Palm/HHT recording

Simplifies work on the Dräger Polytron 7000 whenever the PALM or IR Interface is used.

Order No.: 83 19 087

Accessories

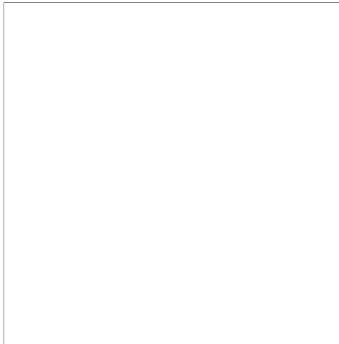


ST-5676-2006

Viton® Calibration Adapter

The Viton® adapter is designed for zero-point tests and the calibration of transmitters with electrochemical sensors (not type AC), catalytic sensors (pellistors) and Polytron IR CO₂ and Polytron IR Ex HC type transmitters.

Part number: 68 10 536



Gassing adapter

Adapter for permanent gassing and the calibration of transmitters with electrochemical sensors (not type AC), catalytic sensors (pellistors) and transmitters of type Polytron IR CO₂ and Polytron IR Ex HC. Also suitable for continual use in connection with the sampling unit.

Order No.: 68 06 978



ST-5637-2006

Pump adapter DrägerSensor AC

Special pump adapter for the DrägerSensor AC. Only use in combination with the calibration adapter AC (Part No.: 6809380).

Order No.: 8317976



ST-5628-2006

Calibration adapter DrägerSensor AC

Adapter for permanent gassing and the calibration of transmitters with electrochemical DrägerSensorAC. Also suitable for continual use in connection with the sampling unit.

Order No.: 6809380

Accessories



ST-5686-2006

Rain guard Dräger Sensor AC

Guards the DrägerSensor AC against rain water
Order No.: 6809379



ST-5687-2006

Splash guard DrägerSensor

Guards the DrägerSensors against splashing water. Not suitable for the DrägerSensor AC
Order No.: 6807549



ST-5695-2006

Test Gas Ampule

Designed for use with the calibration bottle, these test gas ampules are available for the following gases/concentrations:

Test gas ampule / Part number

SO₂ 10 ppm / 68 07 763

SO₂ 50 ppm / 68 07 764

NO₂ 10 ppm / 68 07 765

NO₂ 50 ppm / 68 07 766

CO 100 ppm / 68 07 920

CO 300 ppm / 68 07 921

NH₃ 300 ppm / 68 07 923

NH₃ 50 ppm / 68 07 924

SO₂ 1 ppm / 68 07 925

SO₂ 4 ppm / 68 07 926

Cl₂ 8 ppm / 68 07 928

HCN 10 ppm / 68 07 929

H₂S 10 ppm / 68 08 140

H₂S 20 ppm / 68 08 141

H₂S 40 ppm / 68 08 142

H₂S 100 ppm / 68 08 143

Accessories



D-344525-2009

Dräger CC-Vision GDS

Configuration and calibration software for the following stationary gas detection systems: PIR 7000, PIR 7200, Polytron 7000, including status and diagnosis functions.

Order number: 68 11 989

Accessories



ST-5653-2006

Calibration bottle

For the calibration of electrochemical sensors (not type L). Creates a defined gas concentration when using Dräger test gas ampoules.

Order No.: 68 03 407

Related Products



ST-3811-2003

Dräger Polytron® 3000

Continuous safety calls for nonstop gas monitoring. The Dräger Polytron® 3000 is an intrinsically safe gas detector for the continuous monitoring of more than 60 toxic gases and oxygen in ambient air. It is part of a new generation of gas detectors developed on a modular platform. The Polytron® 3000 communicates with the central control system via a 4 to 20 mA signal.



ST-3800-2005

Dräger Polytron® 7500

The Dräger Polytron 7500® transmitter provides continuous monitoring of NF₃ and PFCs (perfluoro compounds), such as C₄F₆, C₅F₈ in ambient air. This is the advanced version of the new modular Polytron Pyrolyzer family from Dräger. It can be extended with modules for additional functions and features such as local alarm relays, digital communication, and diagnostic functions.

Related Products



Dräger PIR 7200

When you are looking for a carbon dioxide monitor you can trust, consider the Dräger PIR 7200. This explosion-proof point gas detection transmitter uses the latest infrared (IR) technology to provide early detection of this toxic gas. Designed for a wide variety of industrial environments, the transmitter offers drift-free optics. Due to its robust design and engineering, the PIR 7200 can be operated even in harsh industrial environments.

Technical Data

Typ	Intrinsically safe transmitter for electrochemical sensors	
Gases and Ranges	Toxic gases and oxygen, ranges user adjustable, see sensor data sheet	
Display	Large graphic display, 34 x 62 mm, 64 x 128 pixel 1.3" x 2.4" Menu structure and messages in real text, 3 button navigation	
Output	Analog	4 to 20 mA
	Digital	HART®, LONWORKS®, PROFIBUS PA, FOUNDATION fieldbus™
	Warning signal, configurable	default: warning signal every 10s for 1s
	Maintenance signal, configurable	3.4 mA constant or 4 mA ± 1 mA, 1 Hz modulation
	Fault signal	< 3.2 mA
Power Supply	16,5 to 30VDC 2-Wire, 3-Wire for Pump module* and relay module*	
Pump Module*	Tubing up to 30m / 100ft. @ 0.5 l/min with 4mm / 3/16" inner diameter	
Relay Module*	Two alarm relays, one fault relay, SPDT, user programmable Rating 5A 240VAC, 5A 24VDC	
Ambient Conditions	Transmitter only, for sensors see separate sensor data sheet	
	Temperature	- 40 to +65 °C / - 40 to +150 °F
	Pressure	700 to 1300 hPa / 23.6 to 32.5 inch Hg
	Humidity	0 to 100 %RH, non condensing
Enclosure	GRP, IP 66/67, NEMA 4, M20 cable gland	
Size (h x w x d)	166 x 135 x 129 mm, 6.54 "x 5.32" x 5.08" ft.	
Weight	Approx. 900 g / 2 lbs.	
SIL Level	SIL 2 verified	
Approvals	ATEX	II 1G EEx ia IIC T6/T4, - 40 to + 40 / + 65 °C /
		II 3G EEx nL IIC T6, - 25 to + 40 °C /
		II 3D IP6x T65°C
	EN50104:2002+A1:2004 O ₂ measuring function for explosion protection (inertization)	
	IEC	Ex ia IIC T6/T4, - 40 to + 40 / + 65 °C
	UL	Class I, Div 1, Group A, B, C, D, Class II, Div 1, Group E, F, G
	CSA	Class I, Div 1, Group A, B, C, D / Ex ia IIC T6/T4, - 40 to + 40 / + 65 °C
CE-mark	electromagnetic compatibility (directive 89/336/EEC) low voltage directive (72/23/EEC, 93/68/EEC)	

HART® is a registered trademark of the HART Communication Foundation LONWORKS® is a registered trademark of the Echelon Corporation FOUNDATION fieldbus™ is a registered trademark of the Fieldbus Foundation™

*General purpose use only. The transmitter does not have any approval, but the CE-mark when used with LON. a pump or relay module.

Ordering Information

Dräger Polytron® 7000 with 4 to 20 mA output and Sensor Diagnostic Dongle 83 17 980

Dräger Polytron® 7000 variations

4 to 20m A	HART®	Relay	Pump	
x				83 17 610

Ordering Information

x		x			83 17 636*
x			x		83 17 637*
x		x	x		83 17 638*
x	x				83 17 710
x	x	x			83 17 776*
x	x		x		83 17 777*
x	x	x	x		83 17 778*
PROFIBUS® PA	FOUNDATION fieldbus™ H1	LON	Relay	Pump	
		x			83 17 810*
		x	x		83 17 816*
		x		x	83 17 817*
		x	x	x	83 17 818*
x					83 19 430
x			x		83 19 427*
x				x	83 19 436*
x			x	x	83 19 438*
	x				83 19 440
	x		x		83 19 428*
	x			x	83 19 437*
	x		x	x	83 19 439*
Dräger Polytron Docking Station – one required per transmitter			83 17 990		
Modules					
Pump Module			83 17 350		
Relay Module			83 17 360		
Relay Connector			18 90 086		
Software Dongles					
Data Dongle			83 17 618		
Sensor Test Dongle			83 17 619		
Sensor Diagnostic Dongle			83 17 860		
Accessories					
Remote Sensor Adapter			83 17 275		
Remote Cable and plug 5 m / 16 ft.			83 17 270		
Remote Cable and plug 15 m / 49 ft.			83 17 998		
Remote Cable and plug 30 m / 100 ft.			83 17 999		
Remote duct adapter			83 17 617		
Duct Mounting Kit			83 17 150		
Cable Entry Set M20, with cable gland and connector for multi-drop			83 17 282		
Calibration Adapter, electrochemical sensors			68 06 978		
Pump Adapter for DrägerSensor AC L			83 17 976		
Calibration Adapter, DrägerSensor AC L			68 09 380		
Dräger GasVision, data display software			83 14 034		
Dräger CC-Vision GDS, calibration and configuration software			68 11 989		
IR data cable, USB DIRA			83 17 409		
PDA m515-Ex			83 17 995		

Notes