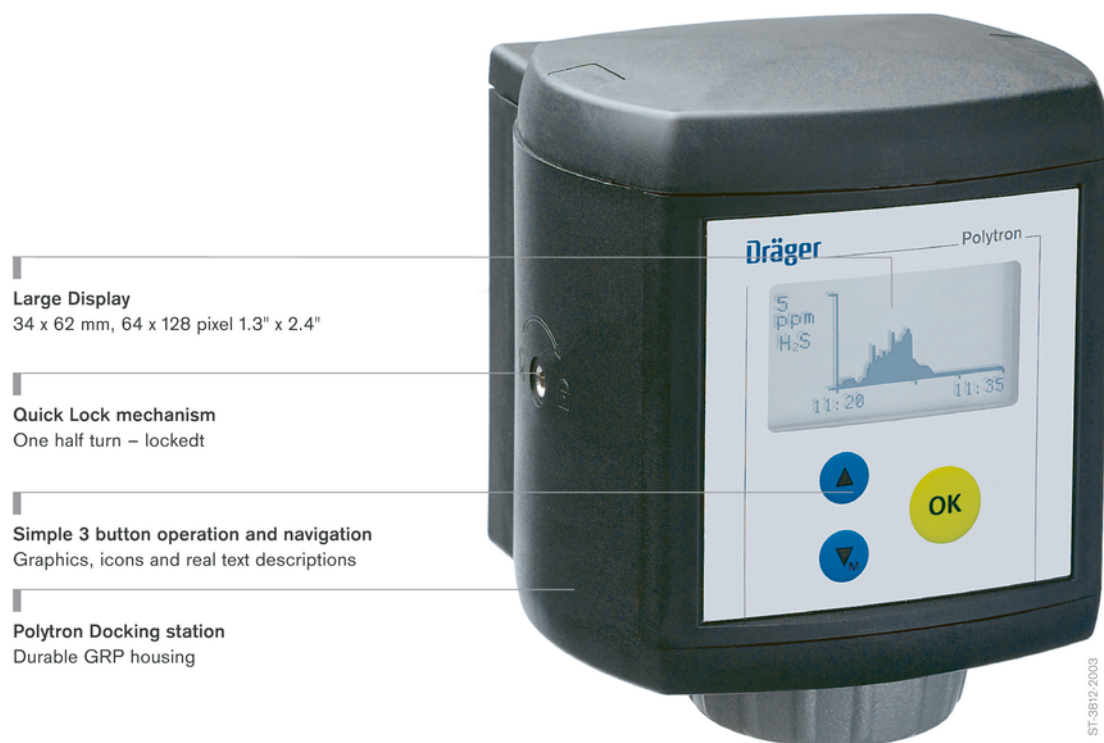# Dräger Polytron® 7000
Fixed Gas Detector

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 – lockedt

Simple 3 button operation and navigation
Graphics, icons and real text descriptions

Polytron Docking station
Durable GRP housing

ST-3812-2003

Dräger. Technology for Life®

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 legacy REGARD® controllers.

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-34525-2009

GasVision

Control software for Data dongle information (data logger)
Order No.: 83 14 034

ST-5634-2006

Palm/HHT recording

Simplifies work on the Dräger Polytron 7000 whenever the PALM or IR
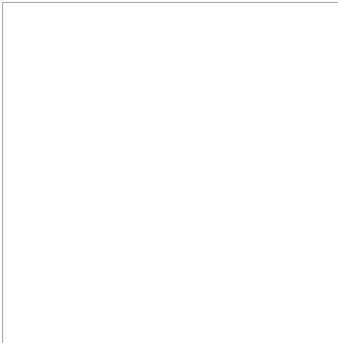Interface is used.
Order No.: 83 19 087

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 CO_2 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 CO_2 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
SO_2 10 ppm / 68 07 763
SO_2 50 ppm / 68 07 764
NO_2 10 ppm / 68 07 765
NO_2 50 ppm / 68 07 766
CO 100 ppm / 68 07 920
CO 300 ppm / 68 07 921
NH_3 300 ppm / 68 07 923
NH_3 50 ppm / 68 07 924
SO_2 1 ppm / 68 07 925
SO_2 4 ppm / 68 07 926
Cl_2 8 ppm / 68 07 928
HCN 10 ppm / 68 07 929
H_2S 10 ppm / 68 08 140
H_2S 20 ppm / 68 08 141
H_2S 40 ppm / 68 08 142
H_2S 100 ppm / 68 08 143

Accessories

D-34525-2009

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 to the central control system via a 4 to 20 mA signal.

ST-11660-2007

Dräger PIR 7200

When you are looking for a carbon dioxide monitor you can trust, consider the Drager 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

PROFIBUS® PA	FOUNDATION fieldbus™ H1	LON	Relay	Pump	
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*
		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

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