

Dräger Polytron® 7000 Detector for toxic gases and oxygen

The Dräger Polytron® 7000 gas detector can satisfy many toxic and oxygen gas measurement applications on a single platform. With its innovative modular concept, the Dräger Polytron® 7000 offers the flexibility to configure the transmitter to fit your exact application.

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

Easy operation

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

Communication interfaces

The wide range of outputs, 4 to 20 mA, HART®, LON, PROFIBUS® or FOUNDATION Fieldbus™, enables the connect of the Polytron 7000 with a control system. The modular design allows for the subsequent retrofit onto any of the mentioned interfaces.

Remote Sensor

The remote sensor adapter can be easily mounted on a wall, or, in combination with the pipe adapter, on exhaust ducts or pipelines.

Relay module

The Dräger Polytron 7000 can be equipped with a relay module. This turns it into an independent gas warning system with two concentration alarms and one fault alarm.

Intelligent sensors

The Dräger Polytron 7000 can detect over 100 different gases. DrägerSensors are specifically designed for the demands of 24 hours per day, 365 days per year operation. The large DrägerSensor size gives them their renowned long life. The built-in sensor data memory containing all the relevant gas and calibration information, together with on board temperature and pressure compensation gives the DrägerSensor its unsurpassed measurement performance. This also allows the Polytron 7000 to accept pre-calibrated sensors, with minimal operator intervention, the Dräger Polytron 7000 is a virtually maintenance free transmitter.

Software options

With three different software dongles, a range of functions are incorporated into the transmitter adjusting it to user or application specific requirements. 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 gas detection system. With the 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 via an IR interface and evaluated on a PC with the Polysoft software. At the push of a button, a 15-minute concentration curve is shown on the transmitter display.

Benefits

Pump module

The inclusion of a pump module enables the Polytron 7000 to draw gas samples from difficult to reach areas, the gas sample is then passed across the DrägerSensor for detection. The pump unit, like all accessories in the Polytron 7000 range is modular, and can be retrofitted into existing transmitters. (Not suitable for use in hazardous areas)

System Components



D-6806-2016

Dräger REGARD® 7000

The Dräger REGARD® 7000 is a modular and therefore highly expandable control system for monitoring various gases and vapours. Suitable for gas warning systems with various levels of complexity and numbers of transmitters, the Dräger REGARD® 7000 also features exceptional reliability and efficiency. An additional benefit is the backward compatibility with the REGARD®.



D-19051-2016

Electrochemical DrägerSensor®

Fast response, high accuracy, great stability, long life. Electrochemical DrägerSensors offer all these benefits. You can use the robust and long-life sensors for the selective measurement of the smallest concentrations of toxic gases and oxygen in ambient air.

Accessories



ST-3805-2003

Docking station

For easy, time-saving mounting and commissioning of the Dräger Polytron® 3000 or 7000. One is required for each Polytron® 3000 or 7000.

Related Products



ST-3811-2003

Dräger Polytron® 3000

The Dräger Polytron® 3000 is an intrinsically safe gas detector for the continuous monitoring of toxic gases and oxygen in ambient air. It is the part of a new generation of gas detectors developed on a modular platform. Communication to the central control system is done via a 4 to 20 mA signal.



D-168-2016

Dräger Polytron® 5100 EC

The Dräger Polytron® 5100 EC is a cost-effective explosion-proof transmitter for the detection of toxic gases or oxygen in standard applications. It uses a high performance plug-and-play electrochemical DrägerSensor® to detect a specific gas. A 2- or 3-wire 4 to 20 mA output with relays makes it compatible with most control systems.

Technical Data

Dräger Polytron® 7000

Typ	Intrinsically safe transmitter for electrochemical sensors
Gases and Ranges	Toxic gases and oxygen, ranges user adjustable, see sensor data sheet
Pump Module*	Tubing up to 30 m / 100 ft. @ 0.5 l/min with 4 mm / 3/16" inner diameter
Relay Module*	Two alarm relays, one fault relay, SPDT, user programmable Rating 5 A 240 VAC, 5 A 24 VDC

Electrical Data

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 30 VDC 2-Wire, 3-Wire for Pump module* and relay module*

Housing

Material	GRP
Protection Class	IP 66/67
Dimensions (H x W x D)	166 x 135 x 129 mm
Weight	Approx. 900g/ 2 lbs.
Cable Gland	M20

Ambient Conditions

Temperature	-40 to +65 °C / -40 to +150 °F
Humidity	0 to 100 % RH, non condensing
Pressure	700 to 1,300 hPa / 23.6 to 32.5 inch Hg

Approvals

ATEX	II 1G Ex ia IIC Ga T4/T6 -40 °C to +65/+40 °C II 3G Ex ic IIC Gc T4/T6 -40 °C to +65/+40 °C II M1 Ex ia I Ma -40 °C to 65 °C
IECEx	Ex ia IIC Ga T4/T6 -40 °C to +65/+40 °C Ex ic IIC Gc T4/T6 -40 °C to +65/+40 °C I M1 Ex ia I Ma -40 °C to 65 °C In accordance with IEC 60079-27, FISCO
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 (2004/108/EEC) ATEX Directive (2014/34/EU) Low Voltage (Directive 2006/95/EC)
SIL Classification	SIL2 (Safety Integrity Level) IEC 61508-2/ IEC 61511-1

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™

Technical Data

*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 83 17 980

Diagnostic Dongle

Dräger Polytron® 7000 variations

4 to 20 mA	HART®	Relay	Pump		
x					83 17 610
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

Ordering Information

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
Process Adapter RS EC, Stainless Steel	83 23 404

Notes

Not all products, features, or services are for sale in all countries.
Mentioned Trademarks are only registered in certain countries and not necessarily in the country in which this material is released. Go to www.draeger.com/trademarks to find the current status.

CORPORATE HEADQUARTERS

Drägerwerk AG & Co. KGaA
Moislinger Allee 53–55
23558 Lübeck, Germany
www.draeger.com

REGION EUROPE

Dräger Safety AG & Co. KGaA
Revalstraße 1
23560 Lübeck, Germany
Tel +49 451 882 0
Fax +49 451 882 2080
info@draeger.com

REGION MIDDLE EAST, AFRICA

Dräger Safety AG & Co. KGaA
Branch Office
P.O. Box 505108
Dubai, United Arab Emirates
Tel +971 4 4294 600
Fax +971 4 4294 699
contactuae@draeger.com

REGION ASIA PACIFIC

Draeger Singapore Pte. Ltd.
61 Science Park Road
The Galen #04-01
Singapore 117525
Tel: +65 6872 9288
Fax: +65 6259 0398
asia.pacific@draeger.com

REGION CENTRAL AND SOUTH AMERICA

Draeger Panamá Comercial
S. de R.L.
59 East Street, Nuevo Paitilla,
House 31, San Francisco Town
Panama City, Panama
Tel +507 377-9100 / Fax -9130
servicioalcliente@draeger.com

REGION NORTH AMERICA

Draeger, Inc.
3135 Quarry Road
Telford, PA 18969
Tel +1 800 4DRAGER
(+1 800 437 2437)
Fax +1 215 723 5935
info.usa@draeger.com

Locate your Regional Sales
Representative at:
www.draeger.com/contact

