

# Dräger REGARD®-1 Control System

The Dräger REGARD®-1 is a standalone, self contained single channel control system for the detection of Toxic, Oxygen and Ex hazards. 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.



### **Benefits**

#### **High flexibility**

The Regard-1 can either be connected to a 4-20-mA transmitter or to Polytron-SE-Ex mV sensing heads. There are three fully configurable alarm relays: rising or falling, latching or non-latching. The alarm status is displayed via three LEDs. They will flash with a new alarm, light up continuously to display an acknowledged alarm situation or extinguish if there is no alarm. The gas concentration is displayed continually on a large LC display. If the alarm thresholds are exceeded or if a fault occurs, the integrated audible alarm will sound. To indicate a transmitter or system fault, a fault relay is provided, a separate fault led is provided on the panel which will flash under new fault condition, light continuously under acknowledged fault condition or will be extinguished under normal or healthy conditions. During maintenance, the maintenance or inhibit relay can be used to report this special status via a remote display.

#### **Useful additions**

The Regard-1 can be equipped with an optional TWA control module. This module enables the output of a TWA alarm as well as the repeat of a 4 to 20mA signal and the alarm states via a digital interface. To ensure the operation of the Regard-1 during a power failure, two batteries of 1.2 Ah each can be inserted into the integrated battery compartment. Depending on the transmitter used, they will enable an operating time from 30 minutes up to two hours. The batteries are re-charged by the Regard-1.

#### Robust enclosure

The robust IP65 enclosure enables the installation of the control system at virtually any location within safe areas.

### Certifications

In accordance with the ATEX directive, the system is certified to EN 61779-1/4/5 and EN 50104 for explosion monitoring and oxygen measuring and, therefore, also suitable for applications which require the measuring function for explosion protection (primary measure in accordance with EN 1127-1, paragraph 6). In addition, the system was also tested independently to EN 45544 for the monitoring of toxic gases.

### System Components



### Dräger PIR 7000

The Dräger PIR 7000 is an explosion proof point infrared gas detector for continuous monitoring of flammable gases and vapours. With its stainless steel SS 316L enclosure and drift-free optics this detector is built for the harshest industrial environments, e.g. offshore installations.



### Dräger PEX 3000

The transmitter Dräger PEX 3000 detects flammable gases and vapours in concentrations below their lower explosive limit. Its DD-sensor provides a long-term stable measuring signal and responds to gas within a few seconds.



### Dräger Flame 5000

The Dräger Flame 5000 is an imaging based explosion proof flame detector. This visual flame detection system uses digital image processing and advanced algorithms to process and interpret flame characteristics. This principle offers an extended field of view and fewer false alarms. Each detector is equipped with a colour CCTV camera.



### Dräger Polytron® Pulsar 2

The Dräger Polytron Pulsar 2 is the latest infrared technology in open path gas detection. Equipped with all the same functions as the standard Dräger Pulsar, Pulsar 2 is fitted with an ABS moulded cover and is supplied with either a junction box or certified connector to provide complete flexibility during installation.

### System Components



### Dräger Polytron® 7000

The Dräger Polytron® 7000 is a gas detector that can satisfy many toxic and oxygen gas measurement applications on a single platform. It meets the requirements of the compliance market as well as the high specification requirements of customised solutions.



### Dräger Polytron® 3000

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 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.

### Related Products



### Dräger REGARD® 7000

The Dräger REGARD® 7000 is a modular and therefore highly expandable analysis 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®.

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### **Related Products**



### Dräger REGARD® 3900

The Dräger REGARD® 3900 is a standalone, self contained control system for the detection of Toxic, Oxygen 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.

## Technical Data

Single channel controller, housed in a rugged ABS enclosure for in- and outdoor applications

Power supply	110/240 VAC, 50/60 Hz		
Input	2/3-wire 4 to 20 mA transmitter or Dräger Polytron SE Ex measuring head		
Output	3 gas alarm relays, fault relay, inhibit relay		
	Remote acknowledgement		
	4 to 20 mA (optional), RS 232 (optional)		
Operation	One-button operation		
	Large LC-display, status LED's		
	Built-in buzzer		
Battery buffer	2 x 12 VDC, 1.2 Ah (optional)		
Ingress protection	IP 65, NEMA 4		
Dimensions	270 x 270 x 90 mm; 10.7" x 10.7" x 3.6" (H x W x D)		
Weight	2.5 kg; 5.5 lbs.		
Wiring	0.5 to 2.5 mm <sup>2</sup> ; AWG 20 to 14		
Ambient conditions	Temperature	0 to 55 °C; 32 to 130 °F	
	Pressure	700 to 1300 hPa; 20.7 to 38.4 inch Hg	
	Humidity	0 to 100 % RH, non-condensing	
Approvals	CE	Electromagnetic compatibility (directive	
		89/336/EEC)	
		Low voltage directive (directive 73/23/	
		EEC)	
	ATEX	II (2) G	

# Ordering Information

Dräger REGARD-1	4 to 20 mA	42 08 585
Dräger REGARD-1	SE Ex	42 08 600
Rechargeable battery kit		42 08 586
Options board	(4 to 20 mA repeater, RS 232, TWA alarm relays)	42 08 583
Display board with datalogger		42 08 636

Notes

### Notes

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