

## Dräger REGARD® 3900 Series Control System

The devices of the Dräger REGARD® 3900 series can be used as standalone controllers. You can configure up to 16 measuring channels. In addition, the modular setup enables you to customise the control units to the demands of your plant. You can also embed further features to existing alarms.



## Benefits

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### Input modules

You can connect up to four 4 to 20 mA transmitters with 2 or 3-core cables to an input module. Up to a total of four input modules per controller can be installed. Each module is populated with three relays. These relays offer common “Fault”, “Alarm 1” and “Alarm 2” SPOC outputs. In addition, the two alarm levels are fully configurable and can be set as rising or falling and latching or non-latching. A third alarm is possible by using the relay module.

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### Relay module

You can add two relay modules to the controller of the REGARD 3900 series. Each module is populated with eight relays. The first relay is dedicated as a “Fault” relay and cannot be reconfigured. The remaining seven relays can be configured as “Single”, “Common” or “Voting” alarms. An additional “Alarm 3” is offered by the relay module along with a second fault threshold. You acknowledge the alarm relays via the push buttons on the front panel. The relays work with open-circuit current or close current.

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### Output module (Repeater module)

Each 4 to 20 mA output repeats the signal of up to eight inputs. This allows indication or recording of gas levels by other control units. You can install up to two analogue output modules.

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### Configuration

You configure your control unit quickly and easily with the configuration software Config 3900 via laptop or PC. For new installations the configuration is prepared offline and uploaded during the commissioning. For maintenance you can download the system configuration for a check. You can get the necessary cable as an accessory. By using the push buttons on the front panel, the REGARD 3920 can be easily adjusted. The configuration menu is easy to understand.

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### Mounting and installation

The robust housing of REGARD 3900 and 3920 is dust-tight and protected against water jets (IP 65). Thus these control units can be installed in safe area. The REGARD 3910 is equipped with built-in display and backplane. You can easily mount it into a cabinet. The modules can be installed there as well.

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### Gateway solution

The REGARD 3900 Modbus Gateway is an interface that converts a CAN bus protocol into a Modbus RTU protocol. Due to this factor, the gateway allows the communication between the control unit of the REGARD 3900 series (CAN bus) with RVP 3900 (Remote Visualisation Panel) or other systems (Modbus RTU). Other possible gateways are: Modbus TCP/IP and PROFIBUS® Gateway. You can use these to transfer data to third party control systems.

## Details



D-27777-2009

Dräger REGARD® 3900



D-4258-2010

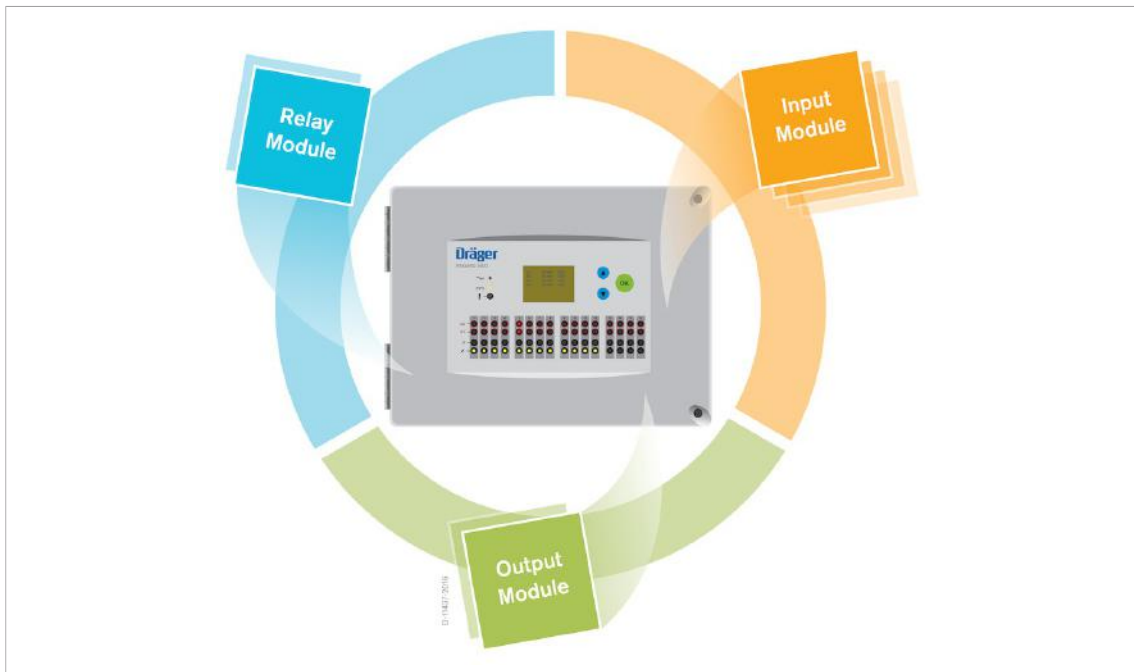
Dräger REGARD® 3910



D-1130-2010

Dräger REGARD® 3920

## Dräger REGARD 3900/3910/3920 – Modules



In a Dräger REGARD® 3900/3910/3920 you can use up to four input or relay modules. Up to additional two output modules are possible.

## System Components



ST-11859-2007

### 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.



ST-3812-2003

### Dräger Polytron® 7000

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



D-11188-2011

### 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.

## Related Products

ST-335-2004



### Dräger REGARD®-1

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.

ST-5647-2006



### Dräger REGARD® 2400 and REGARD® 2410

Dräger REGARD® 2400 and 2410 are flexible small control units for detection of toxic gases and oxygen as well as combustible gases and vapours. Combined with the Dräger transmitters or sensing heads Dräger REGARD® 2400 or 2410 forms a low-maintenance gas detection system for reliable protection.

D-6806-2016



### 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®.

## Technical Data

Type	Control unit for location in a non-hazardous area	
Gas and ranges	see transmitter type for gas name, measuring range and units	
Inputs	all configuration via PC or laptop	
	4 to 20 mA transmitter with 2- or 3-core cable	
Outputs	Alarm 1, Alarm 2 and Fault as standard	
	Warning and inhibit relays on optional relay module	
	Single, common or voted alarms on optional relay module	
	Acknowledgeable relays on optional relay module	
Display	Dräger REGARD® 3900 and	4 lines, 40 characters back-lit LCD
	Dräger REGARD® 3910	4 LEDs per channel (function, fault, Alarm 1 alarm 2) DC and AC power supply LEDs Inhibit-LED
	Dräger REGARD® 3920	Large graphic display (4 x 62 mm, 64 x 128 pixel) Menu structure and messages in real text 3 push button navigation
		4 LEDs per channel (function, fault, Alarm 1 alarm 2) DC and AC power supply LEDs Inhibit-LED
Power supply	External 24 VDC	
	Internal 110 / 240 VAC, 50 / 60 Hz	
Dimensions (W x H x D)	Dräger REGARD® 3900 and 3920	ca. 420 x 300 x 190 mm
	Dräger REGARD® 3910	ca. 300 x 225 x 20 mm
Weight	ca. 3 kg, depending upon type and installed power supply	
Ambient conditions	Temperature	0 to 55 °C
	Pressure	700 to 1,300 hPa
	Humidity	0 to 100 % r.F., non-condensating
Protection class	IP 65	
Housing material	ABS OV	
Approvals	ATEX	II (2) G, TRL 06 ATEX 21099X
	SIL	SIL 1
	CE-Zeichen	Electromagnetic Compability (Directive 89/336/EWG) Low Voltage Directive (72/23/EWG, 93/68/EWG)
	DNV/GL	only Dräger REGARD® 3910
	MED B+D	only Dräger REGARD® 3910

## Ordering Information

### Dräger REGARD® 3900

Dräger REGARD® 3900 Basic Unit	42 08 780
Dräger REGARD® 3900 (1x 4 to 20 mA Input Module + 1x Relay Module)	42 08 810
Dräger REGARD® 3900 (1x 4 to 20 mA Input Module + 2x Relay Module)	42 08 811
Dräger REGARD® 3900 (2x 4 to 20 mA Input Module + 0x Relay Module)	42 08 812
Dräger REGARD® 3900 (2x 4 to 20 mA Input Module + 1x Relay Module)	42 08 813
Dräger REGARD® 3900 (2x 4 to 20 mA Input Module + 2x Relay Module)	42 08 814
Dräger REGARD® 3900 (3x 4 to 20 mA Input Module + 0x Relay Module)	42 08 815
Dräger REGARD® 3900 (3x 4 to 20 mA Input Module + 1x Relay Module)	42 08 816

## Ordering Information

Dräger REGARD® 3900 (4x 4 to 20 mA Input Module + 0x Relay Module)	42 08 817
<b>Dräger REGARD® 3910</b>	
Dräger REGARD® 3910 Display Board	42 08 830
Dräger REGARD® 3910 Mounting Plate for Modules	42 08 831
<b>Dräger REGARD® 3920</b>	
Dräger REGARD® 3920 Basic Unit	42 08 850
<b>Dräger REGARD® 3900/3910/3920 Module</b>	
Dräger REGARD® 3900/3910/3920 4 to 20 mA Input Module	42 08 782
Dräger REGARD® 3900/3910/3920 Relay Module	42 08 784
Dräger REGARD® 3900/3910/3920 4 to 20 mA Output/Repeater Module	42 08 797
<b>Dräger REGARD® 3900/3910/3920 Accessories</b>	
Dräger REGARD® 3900/3910/3920 Modbus Gateway	SC 00 083
Dräger REGARD® 3900/3910/3920 PROFIBUS® DP Gateway	AG 01 100
Dräger REGARD® 3900/3910/3920 Modbus TCP/IP Gateway	SD 13 037
Dräger REGARD® 3900/3910/3920 PSU 2,5 A	42 08 745
Dräger REGARD® 3900/3910/3920 PSU 5 A	42 08 746
Dräger REGARD® 3900/3910/3920 PSU 10 A	42 08 747
Dräger REGARD® 3900/3910/3920 CAN Interface	42 08 785
Dräger REGARD® 3900/3910/3920 Modbus RTU	SC 00 083
Dräger REGARD® 3900/3920 Gateway Cable	SC 00 084
Dräger REGARD® 3910 Gateway Cable	SC 00 085
Dräger Config 3900	on request
PROFIBUS® is a registered trademark of PROFIBUS and PROFINET International (PI)	

## Notes

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### **CORPORATE HEADQUARTERS**

Drägerwerk AG & Co. KGaA  
Moislinger Allee 53–55  
23558 Lübeck, Germany  
[www.draeger.com](http://www.draeger.com)

### **REGION DACH**

Dräger Safety AG & Co. KGaA  
Revalstraße 1  
23560 Lübeck, Germany  
Tel +49 451 882 0  
Fax +49 451 882 2080  
[info@draeger.com](mailto:info@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](mailto: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](mailto:contactuae@draeger.com)

### **REGION ASIA PACIFIC**

Draeger Safety Asia Pte Ltd  
25 International Business Park  
#04-20/21 German Centre  
Singapore 609916  
Tel +65 6308 9400  
Fax +65 6308 9401  
[asia.pacific@draeger.com](mailto:asia.pacific@draeger.com)

### **REGION CENTRAL AND SOUTH AMERICA**

Dräger Panama S. de R.L.  
Complejo Business Park,  
V tower, 10th floor  
Panama City  
Tel +507 377 9100  
Fax +507 377 9130  
[contactcsa@draeger.com](mailto:contactcsa@draeger.com)

Locate your Regional Sales  
Representative at:  
[www.draeger.com/contact](http://www.draeger.com/contact)

