ETA Process Instrumentation
etapii.com
sales@etapii.com
tel: 978.532.1330
New England

Martech Controls
etapii.com
sales@martechcontrols.com
tel: 315.876.9120
Upstate New York

Dräger REGARD 3000 plus Controllers

The Dräger REGARD 3000 plus is a flexible control system that reliably monitors hazardous areas in your gas detection system and triggers alarms. Its modular design adapts to different system sizes and can be configured centrally or locally. A user-friendly dashboard and clear alarms provide transparency and safety.

Dräger

Technology for Life

Dräger REGARD 3000 plus

Benefits

Simple, modular and future-ready solutions for your safety

REGARD 3000 plus is a straightforward and efficient choice for gas detection. For systems with 10 or 12 input channels, you only need two base units, each fitted with one analogue input module and one relay module, plus two housing covers, one with and one without a dashboard. Your system is ready to go in no time, allowing you to focus on what matters most. REGARD 3000 plus also gives you the flexibility to expand your gas detection system at any time. There is no need to worry about future requirements: With additional components such as a base unit and a housing cover with light ring and sounder, you can easily scale up to 192 logical channels. The system is built to grow alongside your operations.

Tailored flexibility for maximum efficiency

Experience full flexibility for your specific application: REGARD 3000 plus lets you build a gas detection system tailored exactly to your needs. Whether you require 2-, 4- or 8-channel input modules, or 4- or 8-channel relay modules, the system can be configured accordingly. This setup gives you a customised solution with top-level efficiency and performance. Each input channel on the REGARD 3000 plus handles signal currents from 0 to 22 mA and lets you set alarm thresholds and special signals to match your application. You can supply up to 500 mA per channel, with a total of max. 2 A per input module. Relay modules add extra flexibility with multiple configuration options for precise alarm control.

By using Dräger-specific HART® information for transmitter monitoring, you gain valuable insights for maintenance and condition monitoring. This cuts down your workload and helps you keep optimising your gas detection system.

Safe planning and reliable operation

The Dräger REGARD 3000 plus Docking Station makes module installation easy, with three colour and shape-coded slots for fast and secure placement. Two digital inputs let you connect remote acknowledgment buttons and maintenance switches for optimal control. For smaller systems, four group relays are available for alarm thresholds 1 and 2 (A1, A2 - A8) and fault messages (SSR/SFR). Whether used as a Base Unit with integrated power supply or individually for wall and cabinet mounting, this flexible solution adapts to your requirements. With integrated visual and audible alarms you always receive all key information, whether you are looking at the dashboard or not. Different tone sequences for alarm thresholds help you tell alarm types apart with ease. If needed, you can switch off the visual and audible signals and adjust the alarms to your requirements.

Unlimited networking for maximum flexibility

Take advantage of unlimited interlinking and flexibility: Connect your gas detection systems easily via Ethernet, from Docking Station to Docking Station. Within a REGARD 3000 plus system you can integrate up to 12 docking stations in a multi-drop structure, with cable runs up to 100 metres. If required, fibre optic connections cover even longer distances. With two LAN ports per station you get a stable and scalable network integration that makes your system future proof. You can also connect your REGARD 3000 plus easily to the REGARD 7000. All channels display clearly on one dashboard and you configure them centrally, regardless of which system they come from. This enables seamless and equal use of all components.

Benefits

Intuitive operation and comprehensive overview

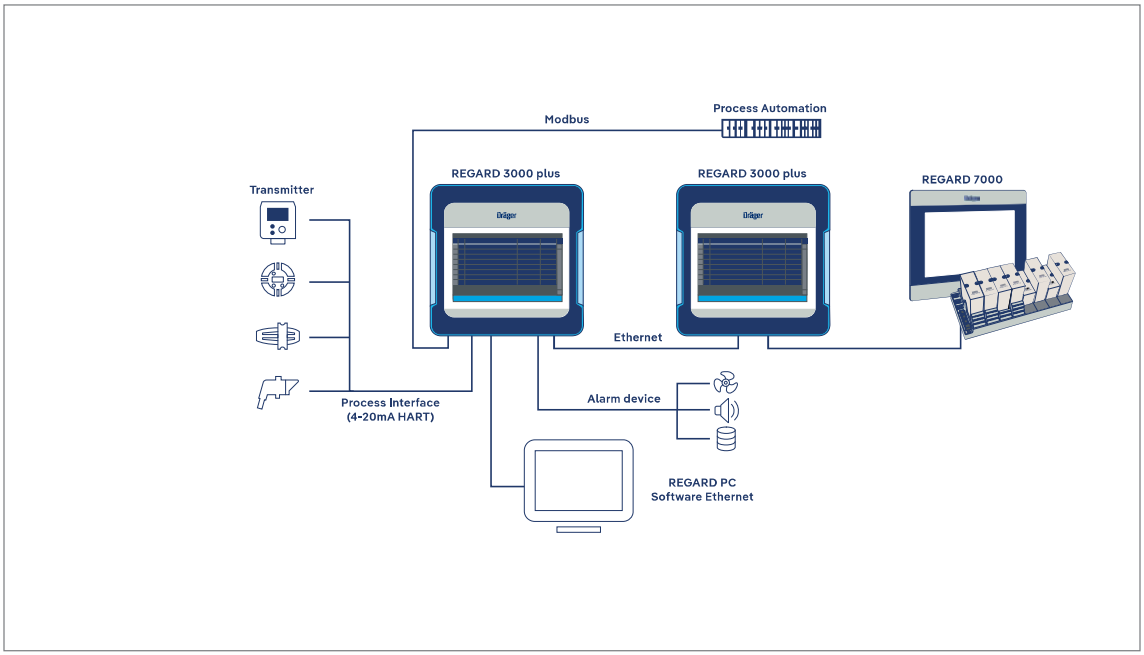
Enjoy easy operation with a large 10-inch dashboard, always clear to read and simple to use. The large touch fields make your inputs quick and safe. All measurements and status messages appear clearly, so you always keep track. With just a few clicks you add measuring points or block channels, always with password protection. You can manage up to 24 modules conveniently, either in Base Units or at cabinets. In addition to the dashboard inside the in Base Unit, the Dräger REGARD 3000 plus is also available with a Lid Unit without dashboard. The integrated light ring remains fully functional: It shows normal operation in blue or green and warns you of faults (yellow) or alarms (red), visible even from a distance, so you always stay informed and can react quickly.

Decentralised design lowers costs

Measuring points are often spread out and central installations can be expensive. With our system you build compact subsystems that connect easily via Ethernet to form one complete system. This gives you a central dashboard that bundles all information clearly and makes control easier. The integrated light ring and sounder replace additional local alarm systems, which lowers installation costs and increases efficiency. If needed, you can set up extra local dashboards, for example in areas with several access points. That way you always have key information exactly where you need it - for more safety and convenience.

Extended control with the Dräger Edge Device

Use the Dräger Edge Device as an additional option to the REGARD 3000 plus to turn your gas detection system into a modern IIoT solution. With seamless cloud access and the Gas Detection Connect software (GDC) you get real-time data and historical analysis that help you plan maintenance efficiently and keep full oversight of your system. You can access the data remotely from everywhere with any internet-enabled device without installation. This integration gives you maximum control and safety, so you always stay informed wherever you are.



The REGARD control system family enables full integration of all subsystems into one overall system, allowing central monitoring and direct countermeasures.

System Components

D-2947-2018

Dräger Polytron 8100 EC

The Polytron 8100 EC is Dräger's top of the line explosion-proof transmitter for the detection of toxic gases or oxygen. It uses a high performance plug and play electrochemical DrägerSensor to detect a specific gas. Besides having a 3-wire 4 to 20 mA analog output with relays, it also offers HART®, Modbus and Fieldbus protocol, making it compatible with most control systems.

ST-11659-2007

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.

D-20467-2020

Dräger Pulsar 7000 Series

The Dräger Pulsar 7000 Series are stationary open path gas detectors for the detection of explosive hydrocarbons in gases and vapours. The robust design and the extremely rapid response time make the Dräger Pulsar 7000 Series a dependable solution for your requirements in the oil and gas industry, as well as the chemical industry.

D-6469-2022

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.

System Components

D-16535-2024

Dräger Edge Device

Turn your REGARD gas detection system into a smart IIoT solution. The Dräger Edge Device and Dräger Gas Detection Connect give you live data on multiple devices, historical analysis and automatic alarm notifications via email. Plan maintenance efficiently from a distance, saving time and resources, and stay informed anytime, anywhere.

Services

D-2331-2016

Product service

Our product service department is here to support you with a range of service packages – in our shops or on site at your facility. Care, servicing and maintenance are key factors when it comes to safety. Diligent maintenance and care are also absolutely necessary from an economic perspective. Preventive checks, service procedures and original replacement parts ensure your investment lasts longer.

D-2335-2016

Training:

The Dräger Academy has been sharing its sound, practical knowledge for over 40 years. With more than 110 authorised trainers and over 600 topics, we run more than 2,400 training sessions a year. We provide your staff with practical knowledge and ensure that what they learn can be applied effectively, both on a day-to-day basis and more importantly, in critical situations. We're also happy to develop a custom-made training programme just for you.

Technical Data

REGARD 3000 plus

Control system specifications

Control system type	Modular control unit for gas and fire detection systems for wall or cabinet mounting	
System limits	The display unit processes 192 logical channels or 24 modules, regardless of whether they are channels of REGARD 3000, REGARD 3000 plus or REGARD 7000. At the same time the display unit can communicate with up to 12 Docking Stations or base units in one system, regardless of whether they are Docking Stations or Base Units of REGARD 3000, REGARD 3000 plus or REGARD 7000.	
System response times	Transmission of measured values and status information within the REGARD 3000 plus	typically 1 s max. 3.3 s
	If the maximum transmission time for status information is exceeded, a special status is signalled	
	Measured value update time at the input: 4 – 20 mA Input Module / HART 2/4/8 Ch	50 ms
	Measured value update time at the input: Modbus RTU Gateway Module	max. 6 s
Setting times	t20	< 3 s
	t50	< 3 s
	t90	< 3 s
	The setting times are independent of the measured gas.	
Time until ready to measure	After switching on the REGARD 3000 plus	< 60 s

Electrical data

Base Unit	
Terminal block (power supply)	Plug contacts for wire cross sections from 0.5 mm^2 to 4.0 mm^2
Operating voltage	115 – 230 V AC / 50 – 60 Hz
Power consumption	3 A max. (typically 1 A) (depending on the number of installed modules and connected transmitters)
Power loss	Max. 25 W (power supply 10 W + Docking Station 15 W)
Docking Station	
Terminal blocks	Plug contacts for wire cross sections from 0.08 mm^2 to 2.5 mm^2
Operating voltage (without Base Unit)	24 V DC (18 - 30 V DC)
Power consumption (without Base Unit)	3 A max. (depending on the number of installed modules and connected transmitters)
Power loss (without Base Unit)	Max. 15 W at 24 V
Output SFR	Min. 5 V, 10 mA, max. 30 V, 2 A switching capacity; protect output against overload
Output SSR	Min. 5 V, 10 mA, max. 30 V, 2 A switching capacity; protect output against overload
Pre-alarm relay output	Min. 5 V, 10 mA, max. 30 V, 2 A switching capacity; protect output against overload
Main alarm relay output	Min. 5 V, 10 mA, max. 30 V, 2 A switching capacity; protect output against overload

Technical Data

Monitoring functions	Input voltage monitoring 18 – 30 V based on the Docking Station supply voltage. In case of undervoltage, the SFR is activated; in case of overvoltage, the supply is switched off and the SFR is activated, after which a restart is necessary. Total current monitoring switch-off at > 5.5 A (max. 6 A) at 18 – 30 V, after which a restart is necessary. Overtemperature monitoring switches off the docking station and activates the SFR, after which a restart is necessary.

4 – 20 mA Input Module / HART 2/4/8 Ch

Number of input channels	2, 4 or 8
Transmitter supply voltage	Typically 24 V, depending on the supply voltage of the docking station
Transmitter supply current	Max. 500 mA per channel
	Total max. 1 A per module (ambient temperature < 55 °C)
	Total max. 2 A per module (ambient temperature < 55 °C)
	If the total transmitter supply current is exceeded, the transmitters must be supplied externally.
Current range signal input	0 to 24 mA (short-circuit detection at 38 mA)
Input resistance	262 Ohm
Measurement accuracy	±0.05 mA ±0.002 mA/K [0 ... 4 mA]
	±1.25 % ±0.05 %/K [4 ... 24 mA]
Power consumption	Max. 2.1 A
Power loss	Max. 5 W at 24 V
Deviation of adjustable time parameters	Max. ±1%

Relay Module 4/8 Ch

Number of output relays	4 or 8, each with one potential-free changeover contact
Switching voltage	100 to 240 V AC, 50 to 60 Hz
	5 to 50 V DC
Switching current	100 to 240 V AC up to 2 A; cosine Phi ≥ 0,4
	5 to 30 V DC, 10 mA to 2 A
	> 30 to 50 V DC, 10 mA to 1.2 A
Power consumption	Max. 100 mA (no relay activated) Max. 150 mA (4 relays activated)
Power loss	Max. 5 W at 24 V
Pollution level	2
Overvoltage category	II
Update rate of the switching outputs	0.5 s
Deviation with adjustable time parameters	Max. ±1%

Technical Data

Modbus RTU Gateway Module

Number of channels	1 channel, bidirectional. One gateway module always occupies one port in the overall system
Power consumption	Typ. 100 mA at 24 V
Power loss	Max. 4 W at 24 V
Transmission rate	Adjustable: 9,600 to 921,600 baud
Cable length fieldbus side	< 57,600 baud max. 1200 m
	< 230,400 baud max. 500 m
	< 921,600 baud max. 120 m
Resistance	Max. 120 Ohm

Modbus TCP Gateway Module

Number of channels	1 channel, bidirectional. One gateway module always occupies one port in the gas detection system
Power consumption	Typ. 100 mA at 24 V
Power loss	Max. 4 W at 24 V
Transmission rate	100 Mbit/s
Cable length fieldbus side	max. 100 m

Housing characteristics

Dimensions and weights	**[H x W x D] [mm] [g]**	**[g]**
Base Unit	300 × 305 × 100	2600
Display Unit	300 × 303 × 50	1700
Docking Station	185 x 200 x 50	680
Lid Unit	300 × 303 × 50	1400
4 – 20 mA Input Module / HART®2/4/8Ch	69 x 110 x 35	110/115
Relay Module 4/8 Ch	69 x 110 x 35	130/150
Modbus RTU Gateway Module	69 x 110 x 35	120
Slotcover	69 x 110 x 35	80
Modbus TCP Gateway Module	69 x 110 x 35	1400

Environmental conditions

Temperature (during operation)	-20 … +55 °C
Temperature (in storage)	-20 … +65 °C
Humidity (with Display Unit)	5 … 90% rH, non-condensing
Humidity (without Display Unit)	0 … 95% rH, non-condensing
Humidity (in storage)	5 … 90% rH, non-condensing
Pressure	700 … 1300 hPa
Height	Max. 2000 m above sea level

Technical Data

Approvals	
Approvals	
ATEX (metrological performance)	EN 60079-29-1, EN 50104, EN 50271, EN IEC 62990-1
SIL (functional safety)	EN 50402, IEC 61508
CE marking	2014/34/EU ATEX Directive
	2014/30/EU EMC Directive
	2014/35/EU Low Voltage Directive
	2011/65/EU RoHS Directive

Ordering Information

Dräger REGARD 3000 plus	
Dräger REGARD 3000 plus Display Unit	3715011
Dräger REGARD 3000 plus Lid Unit	3738916
Dräger REGARD 3000 plus Base Unit	3734916
Dräger REGARD 3000 plus Docking Station ET	3738952
Dräger REGARD 3000/5000 4-20mA Input Module 2Ch	3705680
Dräger REGARD 3000/5000 4-20mA Input Module 4Ch	3705681
Dräger REGARD 3000/5000 4-20mA Input Module 8Ch	3705682
Dräger REGARD 3000/5000 Relay Module 4Ch	3705687
Dräger REGARD 3000/5000 Relay Module 8Ch	3705688
Dräger REGARD 3000/5000 MB RTU Gateway Module	3705693
Dräger REGARD 3000/5000 MB TCP Gateway Module	3705694
Dräger REGARD 3000/5000 Slotcover	3705672
Dräger REGARD Add-On Event Logger	3707819
Dräger REGARD 3000 plus/7000 PC Software Key	8327253
Dräger REGARD 3000/5000 Mounting Clip	3720165
Dräger REGARD 3000 Cabinet Set ET	3738929
Dräger REGARD 3000/5000 plus Adapter pba SP	3739311
Dräger REGARD 3000/5000 EMC Cable Gland	3709674
Socket wrench for Cable Gland	3716411