Control unit
CGD50

Part no. Listed in Ordering Information

G005222

System: CGD50

General Description

CGD50 is a gas detection control system. It is designed for small stationary gas detection installations for the monitoring of explosive and/or toxic gases and oxygen.

The central is delivered complete with:

- 1 × Control panel, Internal

- 1 × Isolated serial interface RS485 (NMEA 0183, MODBUS RTU)

- 5-15 × Relay outputs (one for fault and one for gas A1, 3-13 pcs programmable relays)

- 4-12 × 4-20mA inputs for connection of gas detectors (Sink and Source)

- 1 × 4.2A Power supply, 100-240VAC / 24VDC output

Also included in the delivery for some types (see Ordering Information):

- 1 × Serial interface RS485/RS422

- 1 × Serial interface RS232

- 8 × Digital input channels for monitoring of input signals

- 8 × Digital output channels for cable monitoring and for control of power supply to units such as alarm devices

Applications

- Chemical industry

- Refineries

- Waste water treatment

- Boiler houses

- Laboratory / Universities

- Storage dangerous goods

- Food industry

For more information, please refer to the datasheets of the system modules and the CGD50/500 manuals.

Data

Nominal voltage	100-240VAC
Power consumption	~25W in normal condition
Ingress Protection	IP55
Cable terminals	2.5 mm^2, 1.5 mm^2 for terminal 1-5 on Buscon M Gas
Cable specification	2 or 3 core wire screened (min. 0.75 mm^2)
Measurement ranges	% LEL, ppm, ppb, VOL %
Temperature range	-5°C to +55°C
Colour, cabinet	RAL7035
Weight	11 kg ± 5%

System Modules

Part No.	System Module
5201049-00A	PSU M AC/DC 4.2A, 1 pc. Address N/A
5110002-00A	BusCon M Gas, 1 pc. Address N/A
5110003-20A	Analogue M 4-20, 1 pc. Address 11 (and 12, 13 where applicable)
5100080-20A	Relay M 8, 1 pc. Address 75. Where applicable.
5100001-20A	Control M X, 1 pc. Address 8. Where applicable.
5100074-20A	Digital input Address 99. Where applicable.
5100076-20A	Digital output Address 91. Where applicable.

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Ordering Information

Type	Item number	Analogue 4-20mA Inputs	Configurable Relay Outputs	Enclosure	RS485	RS485/ RS422	RS232	Digital inputs	Digital outputs
CGD50 I-1A	5101112-00A	4	3	Coated	1	-	-	-	-
CGD50 I-1A1C	5101113-00A	4	5	Coated	1	1	1	-	-
CGD50 I-1A1C1R	5101114-00A	4	13	Coated	1	1	1	-	-
CGD50 I-1A1C1R 1DI1DO	5101115-00A	4	13	Coated	1	1	1	8	8
CGD50 I-1A1R	5101116-00A	4	11	Coated	1	-	-	-	-
CGD50 I-2A	5101117-00A	8	3	Coated	1	-	-	-	-
CGD50 I-2A1C	5101118-00A	8	5	Coated	1	1	1	-	-
CGD50 I-2A1C1R	5101119-00A	8	13	Coated	1	1	1	-	-
CGD50 I-2A1C1R 1DI1DO	5101120-00A	8	13	Coated	1	1	1	8	8
CGD50 I-2A1R	5101121-00A	8	11	Coated	1	-	-	-	-
CGD50 I-3A	5101122-00A	12	3	Coated	1	-	-	-	-
CGD50 I-3A1C	5101123-00A	12	5	Coated	1	1	1	-	-
CGD50 I-3A1C1R	5101124-00A	12	13	Coated	1	1	1	-	-
CGD50 I-3A1R 1DI1DO	5101125-00A	12	13	Coated	1	-	-	8	8
CGD50 I-3A1R	5101126-00A	12	11	Coated	1	-	-	-	-
CGD50 I-1A	5101127-00A	4	3	Stainless steel	1	-	-	-	-
CGD50 I-1A1C	5101128-00A	4	5	Stainless steel	1	1	1	-	-
CGD50 I-1A1C1R	5101129-00A	4	13	Stainless steel	1	1	1	-	-
CGD50 I-1A1C1R 1DI1DO	5101130-00A	4	13	Stainless steel	1	1	1	8	8
CGD50 I-1A1R	5101131-00A	4	11	Stainless steel	1	-	-	-	-
CGD50 I-2A	5101132-00A	8	3	Stainless steel	1	-	-	-	-
CGD50 I-2A1C	5101133-00A	8	5	Stainless steel	1	1	1	-	-

The specifications described herein are subject to change without notice. Data sheet no. Listed in Ordering Information_CGD50_I0_EN_2021_A

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Type	Item number	Analogue 4-20mA Inputs	Configurable Relay Outputs	Enclosure	RS485	RS485/ RS422	RS232	Digital inputs	Digital outputs
CGD50 I-2A1C1R	5101134-00A	8	13	Stainless steel	1	1	1	-	-
CGD50 I-2A1C1R 1DI1DO	5101135-00A	8	13	Stainless steel	1	1	1	8	8
CGD50 I-2A1R	5101136-00A	8	11	Stainless steel	1	-	-	-	-
CGD50 I-3A	5101137-00A	12	3	Stainless steel	1	-	-	-	-
CGD50 I-3A1C	5101138-00A	12	5	Stainless steel	1	1	1	-	-
CGD50 I-3A1C1R	5101139-00A	12	13	Stainless steel	1	1	1	-	-
CGD50 I-3A1R 1DI1DO	5101140-00A	12	13	Stainless steel	1	-	-	8	8
CGD50 I-3A1R	5101141-00A	12	11	Stainless steel	1	-	-	-	-

In addition to the configurable relay outputs all panels are equipped with one alarm relay (A1) & one fault relay.

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Accessories

Type	Part No.	Description
SVA, Alarm messenger	4000225	Alarm messenger (SMS / Email)
Signal tower	4000200	Multi LED Signal tower with 3 colours (green, orange & red), incl. buzzer (24VDC)
Sounder + Beacon	4000189	Combined Sounder (110dB) and beacon (Red flash light) 24VDC
Beacon	4000198	Beacon (Red flash light) 24VDC
Text sign	4000184e	Text sign ''GAS ALARM – LEAVE AREA''
	4000185e	Text sign ''GAS ALARM – DO NOT ENTER''
Cable gland PG13,5	4002432	PG13,5 for entry of sensor cable
Cable nut PG13,5	4002433	PG13,5 in combination with 4002432

Wall mounted cabinet dimensions (mm)
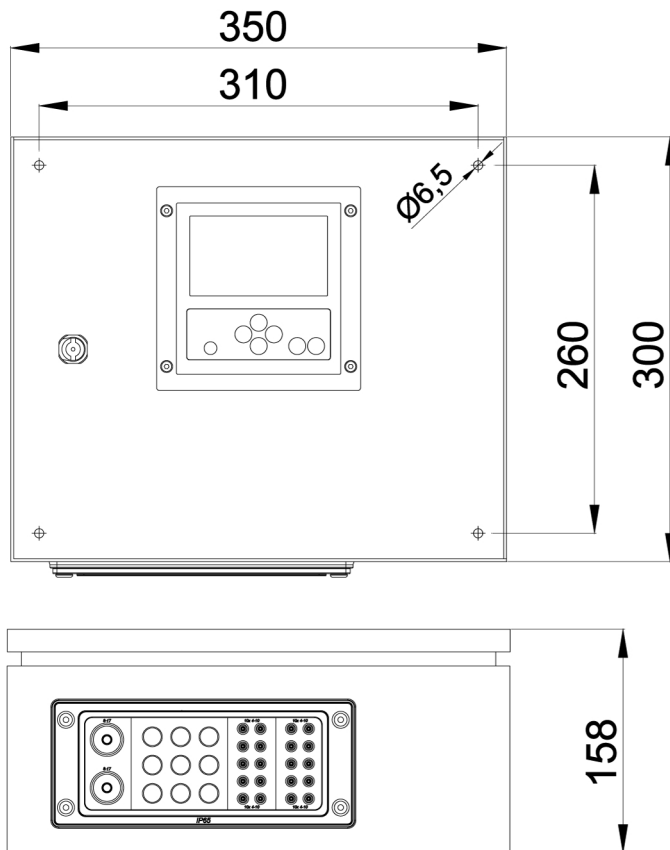
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Figure 1. Cabinet dimensions (mm)

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Figure 2. I-1A

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Figure 3. I-1A1C

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Figure 4. I-1A1C1R

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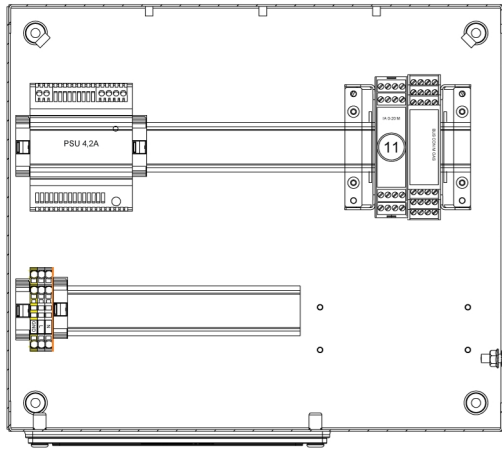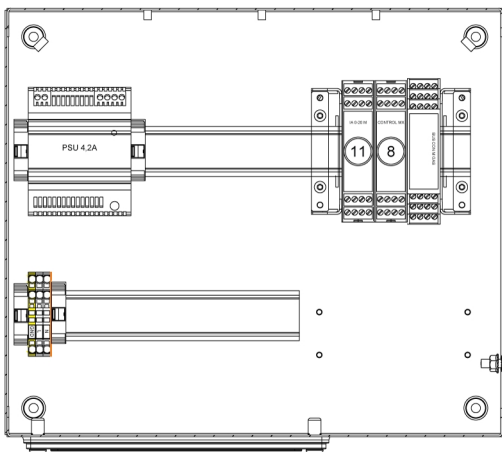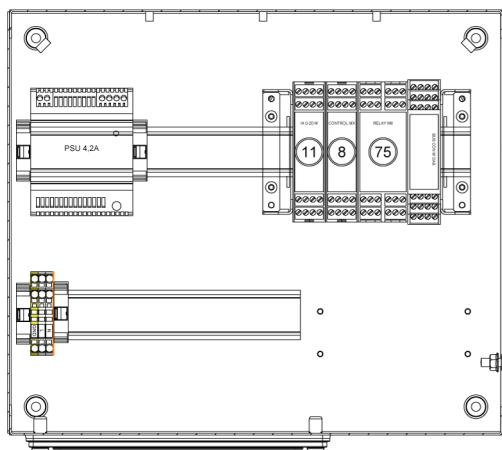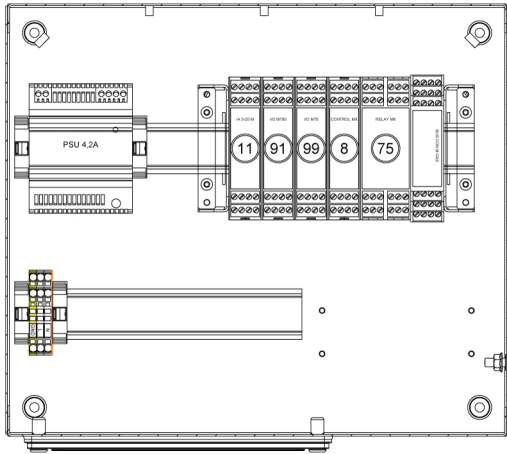
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Figure 5. I-1A1C1R1DI1DO

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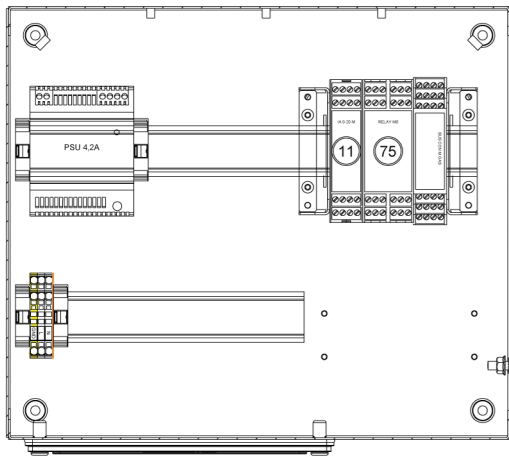
Figure 6. I-1A1R
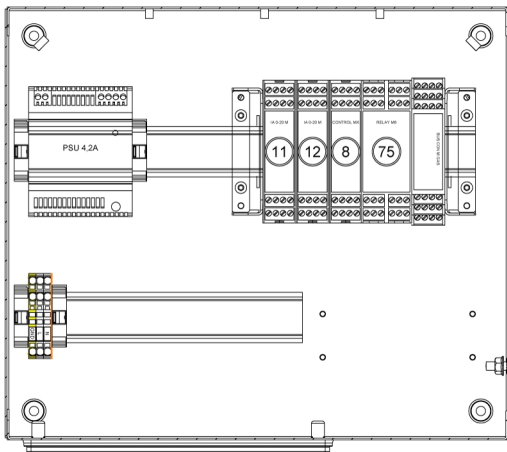

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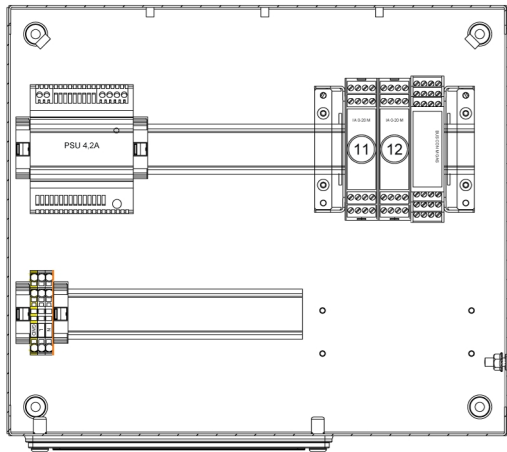
Figure 7. I-2A

G023561
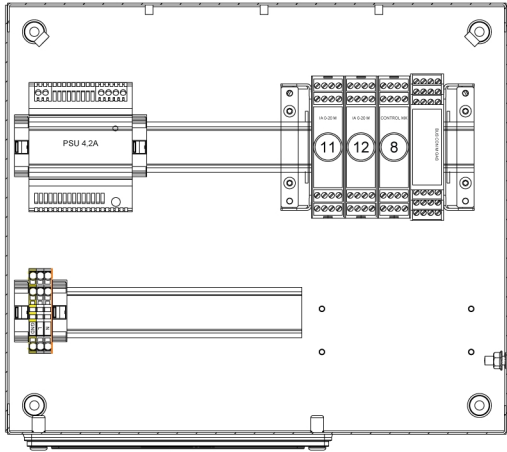
Figure 8. I-2A1C

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Figure 9. I-2A1C1R

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Figure 10. I-2A1C1R1DI1DO

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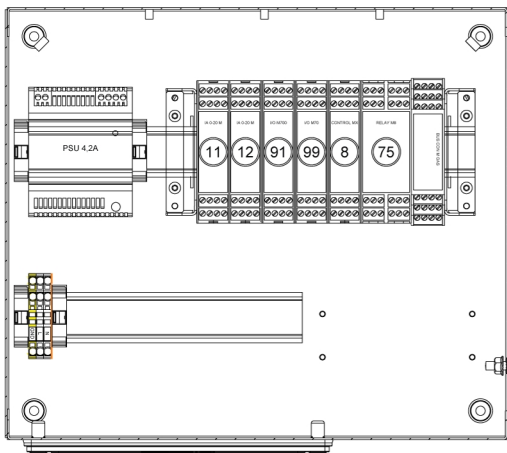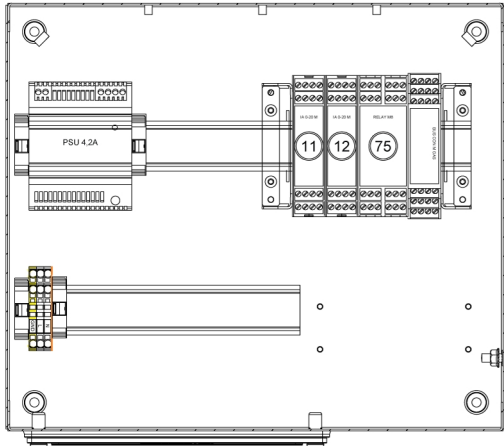
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Figure 11. I-2A1R

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Figure 12. I-3A

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Figure 13. I-3A1C

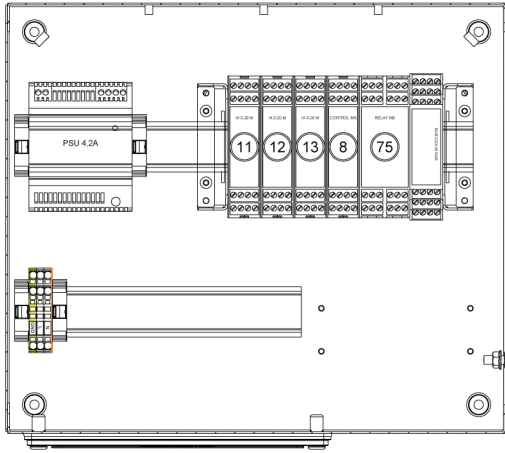Data sheet no. Listed in Ordering Information_CGD50_I0_EN_2021_A
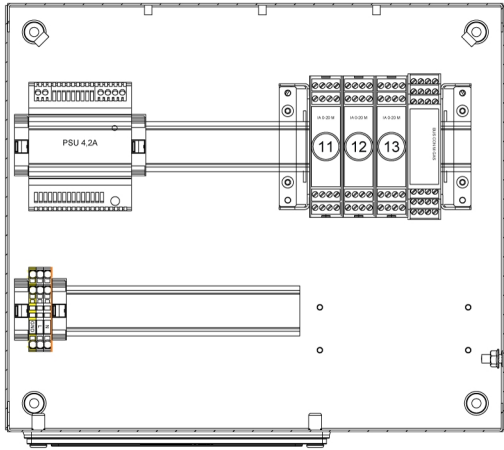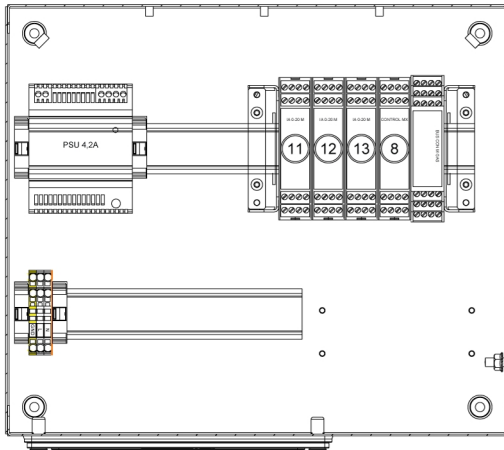
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Figure 14. I-3A1C1R

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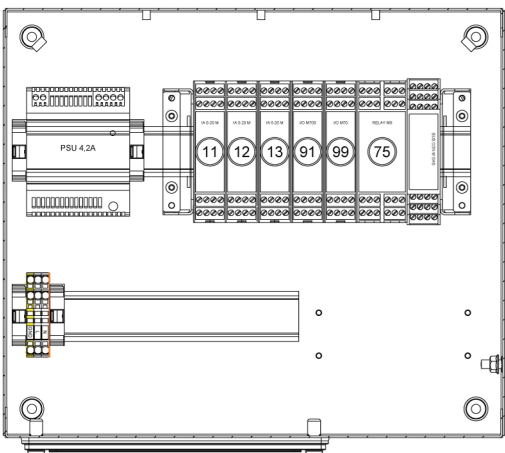*Figure 15. I-3A1R1DI1DO*

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Figure 16. I-3A1R

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