



G005222

Control unit

CGD50

Part no. 5101112-00A to 5101116-00A,
5101127-00A to 5101141-00A, 5121117-00A
to 5121126-00A, 5131132-00A to
5131141-00A

System: CGD50/500

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 x Control panel, Internal
- 1 x Isolated serial interface RS485 (NMEA 0183, MODBUS RTU)
- 5-15 x Relay outputs (one for fault and one for gas A1, 3-13 pcs programmable relays)
- 4-12 x 4-20mA inputs for connection of gas detectors (Sink and Source)
- 1 x 4.2A Power supply, 100-240VAC / 24VDC output

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

- 1 x Serial interface RS485/RS422
- 1 x Serial interface RS232
- 8 x Digital input channels for monitoring of input signals
- 8 x 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
5110001-20A	Control M Gas Internal
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.

Ordering Information

Type All with terminal block	Item number	Analogue 4-20mA Inputs	Fixed Relay Outputs Gas Alarm + SF	Configurable Relay Outputs	Enclosure	RS485/ RS422/ RS232	Digital inputs	Digital outputs
CGD50 I-1A	5101112- 00A	4	1+1	3	Coated	-	-	-
CGD50-I- 1A1DO	5101113- 00A	4	1+1	3	Coated	-	-	8
CGD50-I- 1A1DO1DI	5101114- 00A	4	1+1	3	Coated	-	8	8
CGD50 I-1A1C1R 1DI1DO	5101115- 00A	4	1+1	13	Coated	1	8	8
CGD50 I-1A1R	5101116- 00A	4	1+1	11	Coated	-	-	-
CGD50 I-2A	512117- 00A	8	1+1	3	Coated	-	-	-
CGD50-I- 2A1DO	5121118- 00A	8	1+1	3	Coated	-	-	8
CGD50-I-2A 1DO1DI	5121119- 00A	8	1+1	3	Coated	-	8	8
CGD50 I-2A1C1R 1DI1DO	5121120- 00A	8	1+1	13	Coated	1	8	8
CGD50 I-2A1R	5121121- 00A	8	1+1	11	Coated	-	-	-
CGD50 I-3A	5121122- 00A	12	1+1	3	Coated	-	-	-
CGD50-I- 3A1DO	5121123- 00A	12	1+1	3	Coated	-	-	8
CGD50-I- 3A1DO1DI	5121124- 00A	12	1+1	3	Coated	-	8	8
CGD50 I- 3A1C1R1DI1 DO	5121125- 00A	12	1+1	13	Coated	1	8	8
CGD50 I-3A1R	5121126- 00A	12	1+1	11	Coated	-	-	-
CGD50 I-1A	5101127- 00A	4	1+1	3	Stainless steel	-	-	-
CGD50-I- 1A1DO	5101128- 00A	4	1+1	3	Stainless steel	-	-	8
CGD50-I- 1A1DO1DI	5101129- 00A	4	1+1	3	Stainless steel	-	8	8
CGD50 I-1A1C1R 1DI1DO	5101130- 00A	4	1+1	13	Stainless steel	1	8	8
CGD50 I-1A1R	5101131- 00A	4	1+1	11	Stainless steel	-	-	-
CGD50 I-2A	5131132- 00A	8	1+1	3	Stainless steel	-	-	-

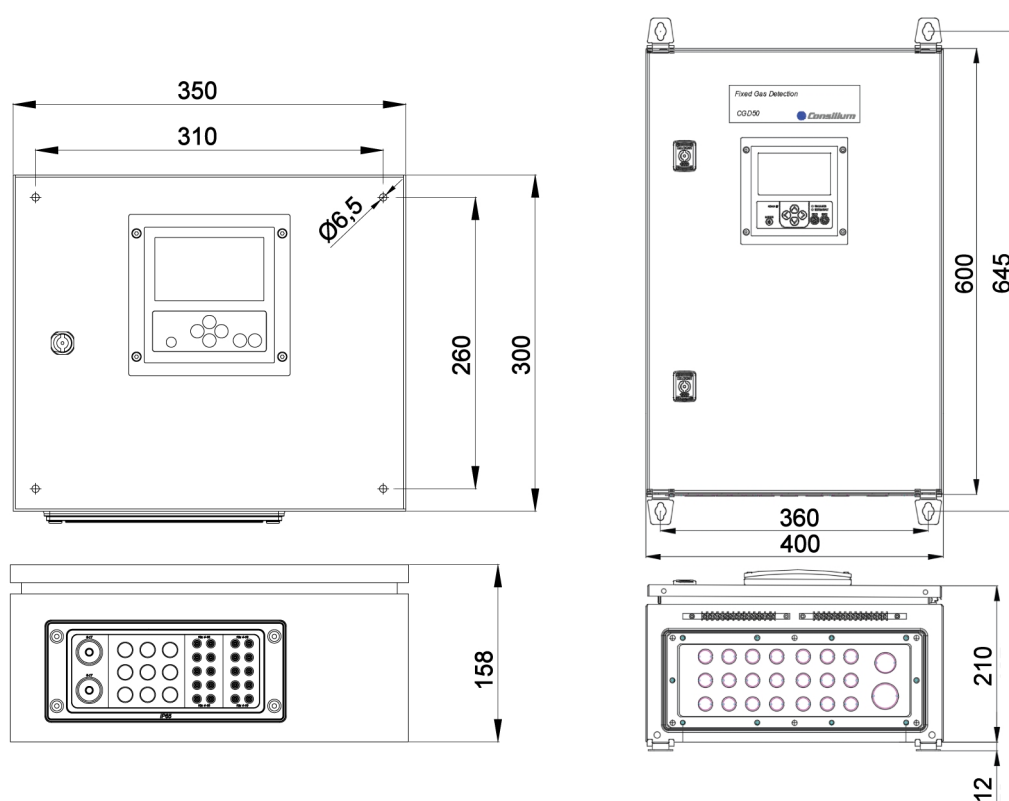
Type All with terminal block	Item number	Analogue 4-20mA Inputs	Fixed Relay Outputs Gas Alarm + SF	Configurable Relay Outputs	Enclosure	RS485/ RS422/ RS232	Digital inputs	Digital outputs
CGD50-I- 2A1DO	5131133- 00A	8	1+1	3	Stainless steel	-	-	8
CGD50-I- 2A1DO1DI	5131134- 00A	8	1+1	3	Stainless steel	-	8	8
CGD50 I-2A1C1R 1DI1DO	5131135- 00A	8	1+1	13	Stainless steel	1	8	8
CGD50 I-2A1R	5131136- 00A	8	1+1	11	Stainless steel	-	-	-
CGD50 I-3A	5131137- 00A	12	1+1	3	Stainless steel	-	-	-
CGD50-I- 3A1DO	5131138- 00A	12	1+1	3	Stainless steel	-	-	8
CGS50-I- 3A1DO1DI	5131139- 00A	12	1+1	3	Stainless steel	-	8	8
CGD50 I- 3A1C1R1DI1 DO	5131140- 00A	12	1+1	13	Stainless steel	1	8	8
CGD50 I-3A1R	5131141- 00A	12	1+1	11	Stainless steel	-	-	-

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

Accessories

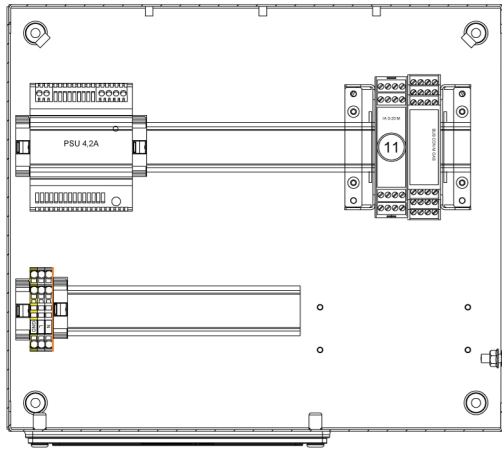
Type	Part No.	Description
SVA, Alarm messenger	4000225	Alarm messenger (SMS / Email)
Signal tower	4000200	Multi LED Signal tower with 3 colours (green, orange & red), incl. buzzer (24VDC)
Sounder + Beacon	4000189	Combined Sounder (110dB) and beacon (Red flash light) 24VDC
Beacon	4000198	Beacon (Red flash 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)



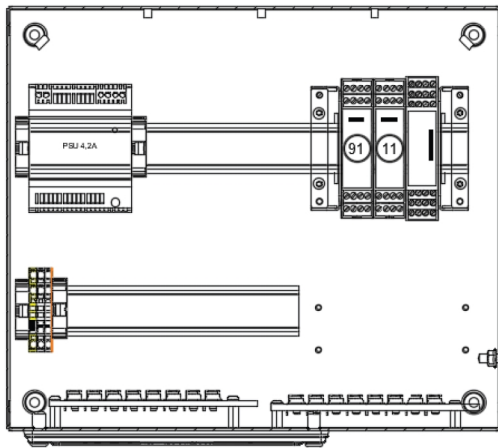
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Figure 1. Cabinet dimensions (mm)



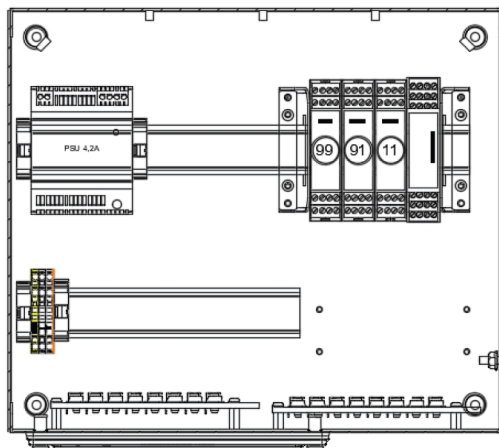
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Figure 2. I-1A



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Figure 3. I-1A1D0



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Figure 4. I-1A1D01DI

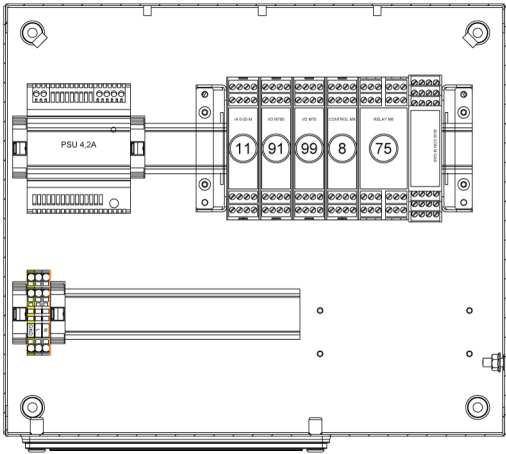


Figure 5. I-1A1C1R1DI1DO

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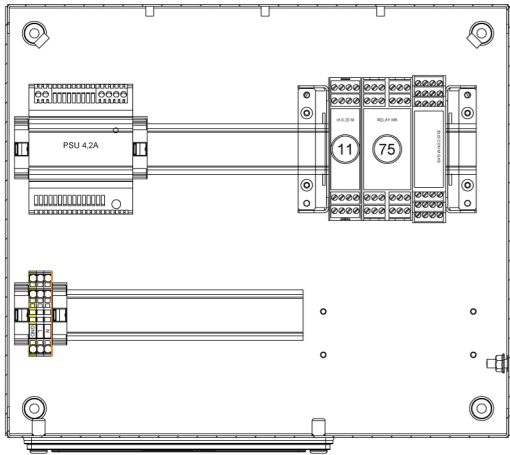


Figure 6. I-1A1R

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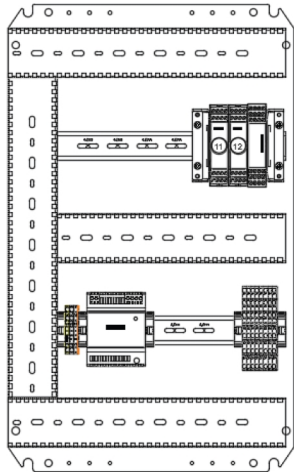


Figure 7. I-2A

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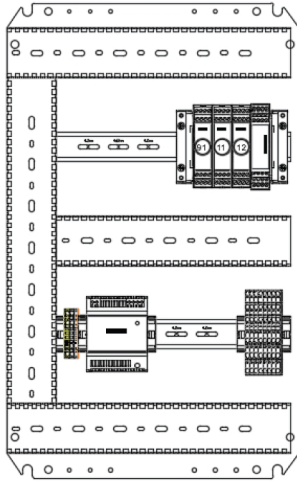


Figure 8. I-2A1DO

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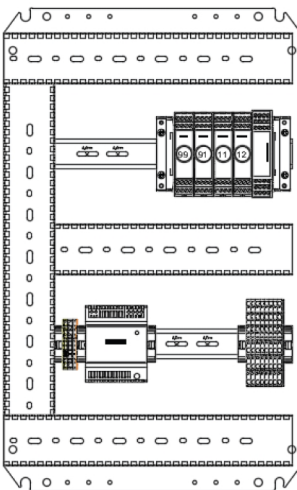


Figure 9. I-2A1DO1DI

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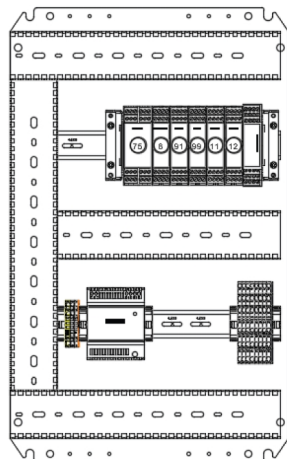


Figure 10. I-2A1C1R1DI1DO

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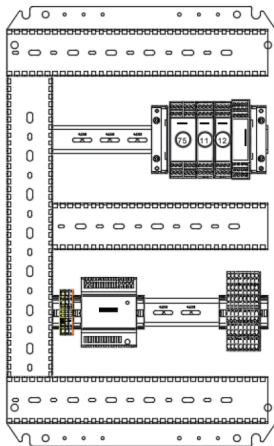


Figure 11. I-2A1R

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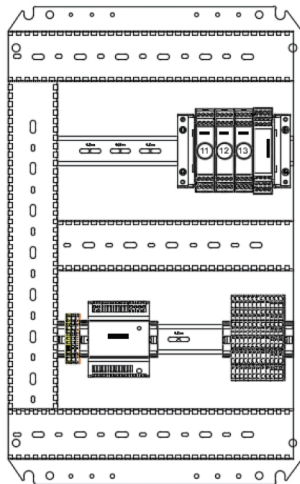


Figure 12. I-3A

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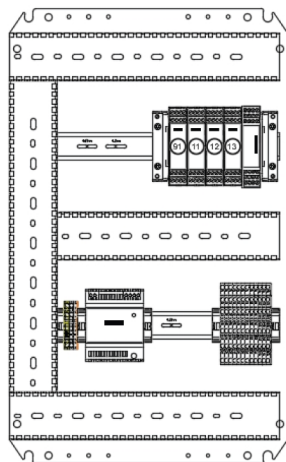


Figure 13. I-3A1DO

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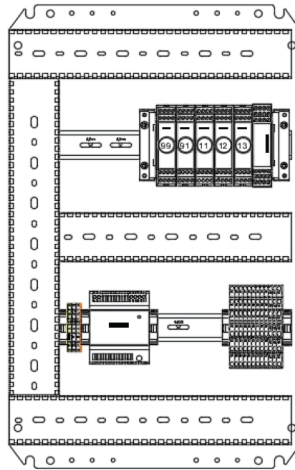


Figure 14. I-3A1DO1DI

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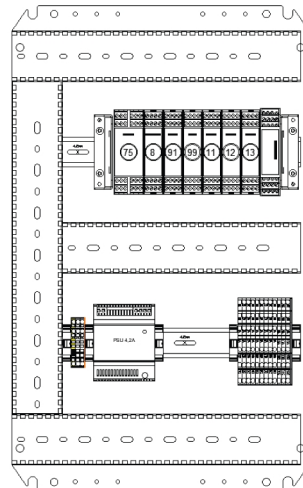


Figure 15. I-3A1C1R1DI1DO

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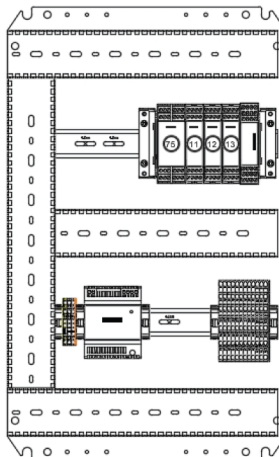


Figure 16. I-3A1R

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