


FW 0751 102 - Modbus parameters

Project: 4CWM


Name: GASGARD XL

Revisions		Description					
Date	Description						
	Modbus parameters	GasGard XL- control unit FW 0751 102					
		Filled in		 MSA AUER Czech, Ltd			
		LV	January 24, 2008				
		Approved by					

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1 Overview

This document describe Modbus parameters implemented in the GasGard XL.

2 Holding area


Base = 40010 + (Measuring point - 1) * 10

Modbus - Holding area

Indx	Meaning
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<i>general</i>	
40001	Relay command : relay board 1 and 2
40002	Relay command : common relays
40003	Device status
40004	<i>reserve</i>
40005	<i>reserve</i>
40006	<i>reserve</i>
40007	<i>reserve</i>
40008	<i>reserve</i>
40009	<i>reserve</i>

<i>channel 1</i>	
40010	Measuring value
40011	Status
40012	Head
40013	Dimension(H-byte) + Measuring range(L-byte)
40014	Alarm 1 level
40015	Alarm 2 level
40016	STEL value
40017	STEL alarm level
40018	TWA value
40019	TWA alarm level


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channel 2	
40020	Measuring value
40021	Status
40022	Head
40023	Dimension(H-byte) + Measuring range(L-byte)
40024	Alarm 1 level
40025	Alarm 2 level
40026	STEL value
40027	STEL alarm level
40028	TWA value
40029	TWA alarm level

channel 3	
40030	Measuring value
40031	Status
40032	Head
40033	Dimension(H-byte) + Measuring range(L-byte)
40034	Alarm 1 level
40035	Alarm 2 level
40036	STEL value
40037	STEL alarm level
40038	TWA value
40039	TWA alarm level

channel 4	
40040	Measuring value
40041	Status
40042	Head
40043	Dimension(H-byte) + Measuring range(L-byte)
40044	Alarm 1 level
40045	Alarm 2 level
40046	STEL value
40047	STEL alarm level
40048	TWA value
40049	TWA alarm level


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channel 5	
40050	Measuring value
40051	Status
40052	Head
40053	Dimension(H-byte) + Measuring range(L-byte)
40054	Alarm 1 level
40055	Alarm 2 level
40056	STEL value
40057	STEL alarm level
40058	TWA value
40059	TWA alarm level


channel 6	
40060	Measuring value
40061	Status
40062	Head
40063	Dimension(H-byte) + Measuring range(L-byte)
40064	Alarm 1 level
40065	Alarm 2 level
40066	STEL value
40067	STEL alarm level
40068	TWA value
40069	TWA alarm level

channel 7	
40070	Measuring value
40071	Status
40072	Head
40073	Dimension(H-byte) + Measuring range(L-byte)
40074	Alarm 1 level
40075	Alarm 2 level
40076	STEL value
40077	STEL alarm level
40078	TWA value
40079	TWA alarm level

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<i>channel 8</i>	
40080	Measuring value
40081	Status
40082	Head
40083	Dimension(H-byte) + Measuring range(L-byte)
40084	Alarm 1 level
40085	Alarm 2 level
40086	STEL value
40087	STEL alarm level
40088	TWA value
40089	TWA alarm level

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2.1 General status parameter – Individual relay's status


Relay command : relay's boards		
Bit	Value	Meaning
0	0	relay 1 is not energized
	1	relay 1 is energized
1	0	relay 2 is not energized
	1	relay 2 is energized
2	0	relay 3 is not energized
	1	relay 3 is energized
3	0	relay 4 is not energized
	1	relay 4 is energized
4	0	relay 5 is not energized
	1	relay 5 is energized
5	0	relay 6 is not energized
	1	relay 6 is energized
6	0	relay 7 is not energized
	1	relay 7 is energized
7	0	relay 8 is not energized
	1	relay 8 is energized
8	0	relay 1 is not energized
	1	relay 1 is energized
9	0	relay 2 is not energized
	1	relay 2 is energized
10	0	relay 3 is not energized
	1	relay 3 is energized
11	0	relay 4 is not energized
	1	relay 4 is energized
12	0	relay 5 is not energized
	1	relay 5 is energized
13	0	relay 6 is not energized
	1	relay 6 is energized
14	0	relay 7 is not energized
	1	relay 7 is energized
15	0	relay 8 is not energized
	1	relay 8 is energized

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2.2 General status parameter – Common relay’s status


Relay command : common relays		
Bit	Value	Meaning
0	0	relay Alarm 2 is not energized
	1	relay Alarm 2 is energized
1	0	relay Alarm 1 is not energized
	1	relay Alarm 1 is energized
2	0	relay Horn 1 is not energized
	1	relay Horn 1 is energized
3	0	relay Horn 2 is not energized
	1	relay Horn 2 is energized
4	0	relay Fault is not energized
	1	relay Fault is energized
5	0	reserve
	1	reserve
6	0	reserve
	1	reserve
7	0	reserve
	1	reserve
8	0	reserve
	1	reserve
9	0	reserve
	1	reserve
10	0	reserve
	1	reserve
11	0	reserve
	1	reserve
12	0	reserve
	1	reserve
13	0	reserve
	1	reserve
14	0	reserve
	1	reserve
15	0	reserve
	1	reserve

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2.3 General status parameter – Device status


Device status		
Bit	Value	Meaning
0	0	Battery Ok
	1	Battery Fault
1	0	Battery Full
	1	Battery Empty
2	0	Main power Ok
	1	Main power Off
3	0	Relay board 1 is not activated
	1	Relay board 1 is activated
4	0	Relay board 2 is not activated
	1	Relay board 2 is activated
5	0	Relay board 1 fault is not set
	1	Relay board 1 fault is set
6	0	Relay board 2 fault is not set
	1	Relay board 2 fault is set
7	0	Main board common relays fault is not set
	1	Main board common relays fault is set
8	0	Main board system fault is not set
	1	Main board system fault is set
9	0	Main board RTC fault is not set
	1	Main board RTC fault is set
10	0	Display board system fault is not set
	1	Display board system fault is set
11	0	Communication Main board-Display board fault is not set
	1	Communication Main board-Display board fault is set
12	0	reserve
	1	reserve
13	0	reserve
	1	reserve
14	0	reserve
	1	reserve
15	0	reserve
	1	reserve

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2.4 Channel status parameter – Channel status


Channel Status		
Bit	Value	Meaning
0	0	1. alarm not set
	1	1. alarm set
1	0	2. alarm not set
	1	2. alarm set
2	0	STEL alarm not set
	1	STEL alarm set
3	0	TWA alarm not set
	1	TWA alarm set
4	0	channel is not under service mode
	1	channel is under service mode
5	0	global fault not set
	1	global fault set
6	0	channel is not inhibited
	1	channel is inhibited
7	0	non ATEX version
	1	ATEX version
8	0	channel is not activated
	1	channel is activated
9	0	reserve
	1	reserve
10	0	reserve
	1	reserve
11	0	reserve
	1	reserve
12	0	reserve
	1	reserve
13	0	reserve
	1	reserve
14	0	reserve
	1	reserve
15	0	reserve
	1	reserve

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2.5 Channel status parameter – Channel head


Head			
Byte	Value		Meaning
Low	0	Active	4..20 mA
	1		BT-4
	2		DF-7010
	3		DF-7100
	4		DF-7500
	5		DF-8201
	6		DF8250
	7		DF-8510
	8		DF-8603
	9		DF-9200
	10		DF-9500
	11		DF-9500C
	12		GD10
	13		RG-3LCD
	14		SafEye
	15		Ultima X
	16		Ultima XE
	17		Ultima XIR
18	FlameGard		
	19	Passive	500S
	20		D-7010
	21		D-7100
	22		D-715 K
	23		D-7152 K
	24		D-7711 K
	25		Serie 47K-ST
	26		Serie 47K-HT
	27		Serie 47K-PRP
High			reserve

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2.6 Channel status parameter – Channel Dimension, Range

Dimension + Range			
Byte	Value		Meaning
High	0	Dimension	ppm
	1		ppm.m
	2		% LEL
	3		LEL m
	4		% vol.
	5		mg/m3
	6		user specified
Low	0	Range	0.10
	1		0.30
	2		0.50
	3		1.00
	4		2.00
	5		3.00
	6		5.00
	7		10.0
	8		20.0
	9		25.0
	10		30.0
	11		50.0
	12		100
	13		200
	14		300
	15		500
16	600		
17	1000		
18	2000		
19	3000		
20	4000		
21	5000		
22	8000		

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