



GD Connect 12 Intelligent interconnected control

Programmer guide PROFIBUS module

Valid for the following software versions:

GD Connect 12: PROFIBUS module: GSD file:

2.0x 1.03 SAM_PB_046B_V103.GSD





(GB) (US) Id. Nr. ZS1060131 / 00



Attention !

This document is only valid for the software versions of

• the GD Connect 12

the PROFIBUS module

and the GSD file

that are listed on the cover page.

In the Annex A of this document is to find, where the software version of the GD Connect 12 and the PROFIBUS module can be read out.

Subject to revision that refers to technical progress.

Table of contents

1. GENERAL	4
1.1 Description	4
1.2 Scope of supply	4
2. COMMISSIONING	5
2.1 Installation of the PROFIBUS module into the cabinet of the GD Connect 12	5
2.2 Adjust the interface RS485-3 of the GD Connect 12	6
2.3 Adressing the PROFIBUS module	8
3. OPERATION	9
3.1 Advices for the PROFIBUS	9
3.2 Integration into the network configuration of the PROFIBUS DP master	10
3.3 Indication of the software version of the PROFIBUS module	10
3.4 Data exchange	10
ANNEX	11
Annex A Address list	11
Annex B Technical datas PROFIBUS module	30

1.1 Description

The GD Connect 12 PROFIBUS module provides an interface between the GD Connect 12 and a PROFIBUS network.

The GD Connect 12 is connected via its serial interface RS485-3 as a slave to the PROFIBUS module. On request of the PROFIBUS master the datas can, provided from the GD Connect 12, be viewed over the PROFIBUS module.

The PROFIBUS module is a slave at the PROFIBUS, i.e. it sends datas only after a request of a PROFIBUS DP master (e.g. PLC). That means, that trips oder faults that are listed in the GD Connect 12 only can be recognized after a request of the PROFIBUS DP master.



Fig.1 – PROFIBUS communication GD Connect 12

1.2 Scope of supply

Ident number:

ZS1060052 PROFIBUS module GD Connect 12

Consisting of:

- PROFIBUS module
- 7pole plug wired to the PROFIBUS module to connect it to the GD Connect 12
- PROFIBUS connector SUBCON-PLUS-PROFIB
- Documentation

2. Commissioning

2.1 Installation of the PROFIBUS module into the cabinet of the GD Connect 12

The PROFIBUS module will be installed directly into the cabinet of the GD Connect 12. Fig. 2 shows how to place the module into the cabinet.



Fig.2 – PROFIBUS module in the cabinet of the GD Connect 12

- The PROFIBUS module (A) has to be clicked onto the DIN rail The 7pole plug of the PROFIBUS module has to be put into the socket X4 (B).



Fig.3 – 7pole plug of the PROFIBUS module into socket X4 (B)

When the PROFIBUS module is installed into the GD Connect 12, the socket for the RS485-3 interface (C) can no longer be used.

2. Commissioning

2.2 Adjust the interface RS485-3 of the GD Connect 12

After installation, the RS485-3 interface of the GD Connect 12 has to be adjust. Therefore, just one menu item of the GD Connect 12 has to be adjust. The following series of figures shows, how to find this menu item.

1. Press key "Adjustments"



2. Press key "GD Connect 12"

10.0 bar	₹ 9.0bar £ 8.0bar	0.0 m³/min
	Adjustments	
	GD Connect 12	PON
	Compressors	
	Extension modules	
< Back		â Code

3. Press key "RS485 interface"

10.0 bar	Ţ	9.0bar 8.0bar	0.0 m ³ /min
Adjus	stme	nts GD (Connect 12
Regulatio	n		Events/Statistics
Timer Contr	~ol		Inputs/Outputs
Profiles			RS485 interface
			R
			▼
< Back			🔒 Code

4. Adjust menu item "Protocol / module" to "PROFIBUS module"



To be able to adjust the menu item "Protocol / module", the code must be unlocked. If the code is unlocked, the button "Code" is showing a green, open padlock (see fig above).

If the button "Code" is showing a red, closed padlock, the code has to be input to unlock the menu item:

- Press the button "Code"
- Input the code (printed in the manual of the GD Connect 12)
- Confirm the code with the OK button.



2.3 Adressing the PROFIBUS module

The address, on which the PROFIBUS module is defined at the PROFIBUS network, must be set by using the hexadecimal switches (see Fig. 4).

000	•••••• <mark>771</mark>	
<u>− 0 00</u> 0V/ 18V~/ PE	4 ιΩ ιΩ Γ ιΩ 4 ιΩ ιΩ Γ ιΩ	
00 200-	Power Profibus Serial Download St Terminatio	
	GD Connect 12 PROFIBUS	
	Profibus-ID x16 x1	

Switch "x1": Lower value part of the address

Fig.4 – Hexadecimal switches to adjust the address at the PROFIBUS network

Switch "x16" Higher value part of the address

Example Adress to be adjust: 18

⇒ 18 = 12hex

 $\Rightarrow Switch "x16": 1$ $\Rightarrow Switch "x1": 2$

The address may only be changed when the module has been switched off.

Furthermore the address FF_{Hex} must not be used since this address is used to activate the firmware download.

3.1 Advices for the PROFIBUS

Cable

The cable for the PROFIBUS network should be a special PROFIBUS cable. Herefore the following cable can be taken:

Manufacturer:	SIEMENS
Туре:	PROFIBUS-standard-cable
Order number:	6XV1830-0EH10

The maximum cable length for a PROFIBUS segment depends on the selected transfer speed:

9,6 93.75 kBaud	= max. '	1.200 m
187,5 kBaud	= max.	1.000 m
500 kBaud	= max.	400 m
1500 kBaud	= max.	200 m

Plug

The plug for the SubD interface of the PROFIBUS module should be a special PROFIBUS plug. The following plug is within the scope of supply of the PROFIBUS module:

Manufacturer:	Phoenix-Contact
Туре:	SUBCON-PLUS-PROFIB
Order number:	27 44 34 8

Bus terminal PROFIBUS

If the PROFIBUS module is used as the last subscriber in a bus segment, a bus terminal resistor must be used.

On the named PROFIBUS plug, the bus terminal resistor can be switched on by small DIP swtiches.

3.2 Integration into the network configuration of the PROFIBUS DP master

To integrate the PROFIBUS module into the PROFIBUS DP master's network, it is necessary to take into account the technical data for the PROFIBUS module.

To do this with maximum convenience, a GSD file is supplied with the module. This file is in ASCII format. It contains a series of keywords to which certain values are assigned. These keywords are defined in the EN 50 170 standard and are used to described the module.

Planning tools for a PROFIBUS DP network interpret these data. This means, that a parameter set is generated during the planning process, which allows the PROFIBUS module to be contacted by the DP master.

The GSD file must be integrated into the planning tool you use. Further details of this are in the description of the planning software used.

The name of the valid GSD file is listed on page 1 of this document.

Important ! Do not modify or supplement the GSD file.

3.3 Indication of the software version of the PROFIBUS module

If the power supply of the PROFIBUS module will be switched on, it indicates the software version by flashing of the LED "Download"

3x Flashing=Software version 1.034x Flashing=Software version 1.04etc.

3.4 Data exchange

The PROFIBUS module continuously updates the data of the GD Connect 12 and provides them automatically in its output data range.

Since the output data range of the PROFIBUS module is limited, not all data are made available simultaneously. Therefore, from the software versions

- 1.03 of the PROFIBUS module
- 1.30 of the GD Connect 12

several "pages" are implemented, i.e. by writing to a specific address of the PROFIBUS module (see Annex A.2), a specific data area of the GD Connect 12 can be read.

Therefore, always ensure that in the evaluation of the read data is always the currently selected page will be taken into account.

The address list, which dates the individual pages contain is to find in Annex A.1.

Annex A Address list

A.1 Address list for reading datas

Addresses of Page 0

GD Connect 12 status bytes

Byte:	0000h	(not used)			
	0001h	Status GD Connect 12	[Bitmask]		
		Bit 0:Regulation switched onBit 1:Collective warningBit 2:Collective faultBit 3:Regulation activeBit 4:(not used)Bit 5:(not used)Bit 6:(not used)Bit 7:(not used)			
		Bit 8-15: (not used)			

Explanations:

Bit 0	Indicates,	if the regulation of the GD Connect 12 is switched on.
	0 =	Regulation switched off The compressors are <u>not</u> controlled by the GD Connect 12 and operate with their internal adjustments.
	1 =	Regulation switched on The regulation of the GD Connect 12 is switched on.
Bit 1 Bit 2	Collective Collective	e signal of all warnings, that could be indicate in the installation. I signal of all faults, that could be indicate in the installation.
Bit 3	Indicates,	if the regulation of the GD Connect 12 is active.
	0 =	Regulation not active The compressors are <u>not</u> controlled by the GD Connect 12 and operate with their internal adjustments.
		Causes: • The regulation of the GD Connect 12 is switched off (Bit 0 = 0) • A fault of the GD Connect 12 is active (e.g. fault of the pressure sensor)
	1 =	Regulation active The regulation of the GD Connect 12 is switched on and active.

GD Connect 12 warning and fault bytes (Address range 1)

Byte:	0002h	Warnir	igs byte 1	[Bitmask]
		Bit 0: Bit 1: Bit 2 Bit 3: Bit 4: Bit 5: Bit 6: Bit 7:	Warning Battery Warning Dew point ¹⁾ (not used) Warning SD card Warning External (not used) (not used) (not used)	
		¹⁾ Warn or an	ing, that was caused by a digital input of the G Extension module.	GD Connect 12
		The w will be	varnings "Dew point 18" (see Warning and fau e caused by an analog input of the GD Connec	ult registers (Address range 2)) t 12 or an Extension module.
Byte:	0003h	Warnir	igs byte 2	[Bitmask]
		Bit 0: Bit 1: Bit 2 Bit 3: Bit 4: Bit 5: Bit 5: Bit 6: Bit 7:	Warning Line pressure min. Warning Line pressure max. (not used) (not used) Warning Dryer 1 Warning Dryer 2 Warning Dryer 3 Warning Dryer 4	
Byte:	0004h	Warnir	igs byte 3	[Bitmask]
		Bit 0: Bit 1: Bit 2 Bit 3: Bit 4: Bit 5: Bit 6: Bit 7:	Warning Extension module 1 Warning Extension module 2 Warning Extension module 3 Warning Extension module 4 (not used) Warning "Signal at DI-1" ²⁾ Warning "Signal at DI-2" Warning "Signal at DI-3"	
		²⁾ The C a digi	GD Connect 12 can not assign a message that al input, because the input is programmed to t	was caused by closing he function "Free".
Byte:	0005h	Warnir	igs byte 4	[Bitmask]
		Bit 0: Bit 1: Bit 2 Bit 3: Bit 4: Bit 5: Bit 6: Bit 7:	Warning Filter 1 Warning Filter 2 Warning Filter 3 Warning Filter 4 Warning Bekomat 1 Warning Bekomat 2 Warning Bekomat 3 Warning Bekomat 4	

Annex

Addresses of Page 0 (cont.)

Byte:	0006h	Warnings byte 5	[Bitmask]	J
		Bit 0:Warning "Signal at IBit 1:Warning "Signal at IBit 2:Warning "Signal at IBit 3:Warning "Signal at IBit 4:Warning "Signal at IBit 5:Warning "Signal at IBit 6:Warning "Signal at IBit 7:Warning "Signal at I	DI-1 Ext.mod. 2" DI-2 Ext.mod. 2" DI-3 Ext.mod. 2" DI-4 Ext.mod. 2" DI-5 Ext.mod. 2" DI-6 Ext.mod. 2" DI-7 Ext.mod. 2" DI-8 Ext.mod. 2"	
Byte:	0007h	Warnings byte 6	[Bitmask]]
		Bit 0:Warning "Signal at IBit 1:Warning "Signal at IBit 2:Warning "Signal at IBit 3:Warning "Signal at IBit 4:Warning "Signal at IBit 5:Warning "Signal at IBit 6:Warning "Signal at IBit 7:Warning "Signal at I	DI-1 Ext.mod. 1" DI-2 Ext.mod. 1" DI-3 Ext.mod. 1" DI-4 Ext.mod. 1" DI-5 Ext.mod. 1" DI-6 Ext.mod. 1" DI-7 Ext.mod. 1" DI-8 Ext.mod. 1"	
Byte:	0008h	Warnings byte 7	[Bitmask]]
		Bit 0:Warning "Signal at IBit 1:Warning "Signal at IBit 2Warning "Signal at IBit 3:Warning "Signal at IBit 4:Warning "Signal at IBit 5:Warning "Signal at IBit 6:Warning "Signal at IBit 7:Warning "Signal at I	DI-1 Ext.mod. 4" DI-2 Ext.mod. 4" DI-3 Ext.mod. 4" DI-4 Ext.mod. 4" DI-5 Ext.mod. 4" DI-6 Ext.mod. 4" DI-7 Ext.mod. 4"	
Byte:	0009h	Warnings byte 8	[Bitmask]]
		Bit 0:Warning "Signal at IBit 1:Warning "Signal at IBit 2:Warning "Signal at IBit 3:Warning "Signal at IBit 4:Warning "Signal at IBit 5:Warning "Signal at IBit 6:Warning "Signal at IBit 7:Warning "Signal at I	DI-1 Ext.mod. 3" DI-2 Ext.mod. 3" DI-3 Ext.mod. 3" DI-4 Ext.mod. 3" DI-5 Ext.mod. 3" DI-6 Ext.mod. 3" DI-7 Ext.mod. 3" DI-8 Ext.mod. 3"	

Annex

Addresses of Page 0 (cont.)

Byte:	000Ah	aults byte 1	[Bitmask]
		it 0: Fault VSD module it 1: (not used) it 2 (not used) it 3: (not used) it 4: (not used) it 5: (not used) it 6: (not used) it 7: (not used)	
Byte:	000Bh	aults byte 2 it 0: Internal fault Analog input it 1: (not used) it 2 (not used) it 3: (not used) it 4: (not used) it 5: (not used) it 6: (not used) it 7: (not used)	[Bitmask]
Measured values GD	Connect 12		
Byte:	000Ch 000Eh 0010h	ine pressure 1(1/10 bitsine pressure 2(1/10 bitsvolume flow(1/10 mits)	ar)[Word] ar)[Word] ³/min)[Word]

Explanations:

Line pressure 1:	Line pressure at the analog input AI-1 of the GD Connect 12
Line pressure 2:	Line pressure at the analog input AI-2 of the GD Connect 12
Volume flow:	The volume flow which is used to regulate the compressors. This could be assigned to of the volume flow 18 or could be calculated on the basis of the line pressure gradient.

Compressor status bytes

Byte:	0012h	Status Compressor 1	[Byte]
	0013h	Status Compressor 2	[Byte]
		 Compressor is loaded Compressor is running Compressor is blowing down Compressor is in standby Compressor is switched off Compressor has a fault Compressor is set to maintenance The communication to the compressor has a fa Software update necessary 	ault
	0014h	Status Compressor 3	[Byte]
	0015h	Status Compressor 4	[Byte]
	0016h	Status Compressor 5	[Byte]
	0017h	Status Compressor 6	[Byte]
	0018h	Status Compressor 7	[Byte]
	0019h	Status Compressor 8	[Byte]
	001Ah	Status Compressor 9	[Byte]
	001Bh	Status Compressor 10	[Byte]
	001Ch	Status Compressor 11	[Byte]
	001Dh	Status Compressor 12	[Byte]

Compressor warning bytes

Byte:	001Eh	Warnings Compressor 2	[Bitmask]
	001Fh	Warnings Compressor 1	[Byte]
		Bit 0:Compressor warning or serviceBit 1:(not used)Bit 2Warning Remote loadBit 3:Warning Remote off-loadBit 47:(not used)	
	0020h	Warnings Compressor 4	[Byte]
	0021h	Warnings Compressor 3	[Byte]
	0022h	Warnings Compressor 6	[Byte]
	0023h	Warnings Compressor 5	[Byte]
	0024h	Warnings Compressor 8	[Byte]
	0025h	Warnings Compressor 7	[Byte]
	0026h	Warnings Compressor 10	[Byte]
	0027h	Warnings Compressor 9	[Byte]
	0028h	Warnings Compressor 12	[Byte]
	0029h	Warnings Compressor 11	[Byte]

Explanations:

"Warning Remote load"

The compressor was switched to load, but there is no appropriate feedback.

"Warning Remote off-load"

The compressor was switched to off-load, but there is no appropriate feedback.

Compressor percentage load

Byte:	002Ah	Percentage load compressor 1	(%)	[Byte]
	002Bh	Percentage load compressor 2	(%)	[Byte]
	002Ch	Percentage load compressor 3	(%)	[Byte]
	002Dh	Percentage load compressor 4	(%)	[Byte]
	002Eh	Percentage load compressor 5	(%)	[Byte]
	002Fh	Percentage load compressor 6	(%)	[Byte]
	0030h	Percentage load compressor 7	(%)	[Byte]
	0031h	Percentage load compressor 8	(%)	[Byte]
	0032h	Percentage load compressor 9	(%)	[Byte]
	0033h	Percentage load compressor 10	(%)	[Byte]
	0034h	Percentage load compressor 11	(%)	[Byte]
	0035h	Percentage load compressor 12	(%)	[Byte]

Current profile

Byte:	0036h	Activated by			[Byte]
		Bit 0:Activated by timeBit 1:Activated by digiBit 2:Activated by RS4Bit 37:(not used)	er control tal input 485 interface		
	0037h	Active profile (112) 0 = Air station off by timer	control		[Byte]
	0038h 0039h 003Ah 003Bh	Max. pressure warning Max. pressure Min. pressure Min. pressure warning		(1/10 bar) (1/10 bar) (1/10 bar) (1/10 bar)	[Byte] [Byte] [Byte] [Byte]
	003Ch	Receiver volume		(1/10 m ³)	[Word]
	003Eh	Priorities compressor 3 +	4		[Bitmask]
		Compressor 3 Bit 0: High Bit 1: Normal Bit 2: Low Bit 3: Off	Compressor 4 Bit 4: High Bit 5: Normal Bit 6: Low Bit 7: Off		
	003Fh	Priorities compressor 1 + Compressor 1 Bit 03	2 Compressor 2 Bit 47		[Bitmask]
	0040h	Priorities compressor 7 + Kompressor 7 Bit 03	8 Kompressor 8 Bit 47		[Bitmask]
	0041h	Priorities compressor 5 + Kompressor 5 Bit 03	6 Kompressor 6 Bit 47		[Bitmask]
	0042h	Priorities compressor 11 · Kompressor 11 Bit 03	+ 12 Kompressor 12 Bit 47		[Bitmask]
	0043h	Priorities compressor 9 + Kompressor 9 Bit 03	10 Kompressor 10 Bit 47		[Bitmask]

Compressor relative hours

Byte:	0044h	Compressor 1 Relative total hours	[Word]
	0046h	Compressor 1 Relative load hours	[Word]
	0048h	Compressor 2 Relative total hours	[Word]
	004Ah	Compressor 2 Relative load hours	[Word]
	004Ch	Compressor 3 Relative total hours	[Word]
	004Eh	Compressor 3 Relative load hours	[Word]
	0050h	Compressor 4 Relative total hours	[Word]
	0052h	Compressor 4 Relative load hours	[Word]
	0054h	Compressor 5 Relative total hours	[Word]
	0056h	Compressor 5 Relative load hours	[Word]
	0058h	Compressor 6 Relative total hours	[Word]
	005Ah	Compressor 6 Relative load hours	[Word]
	005Ch	Compressor 7 Relative total hours	[Word]
	005Eh	Compressor 7 Relative load hours	[Word]
	0060h	Compressor 8 Relative total hours	[Word]
	0062h	Compressor 8 Relative load hours	[Word]
	0064h	Compressor 9 Relative total hours	[Word]
	0066h	Compressor 9 Relative load hours	[Word]
	0068h	Compressor 10 Relative total hours	[Word]
	006Ah	Compressor 10 Relative load hours	[Word]
	006Ch	Compressor 11 Relative total hours	[Word]
	006Eh	Compressor 11 Relative load hours	[Word]
	0070h	Compressor 12 Relative total hours	[Word]
	0072h	Compressor 12 Relative load hours	[Word]

Explanations:

These are the total and loaded hours since a user-specified time.

Thus it can be seen as the time since this newly added operating hours of the GD Connect 12 to individual compressors have been distributed.

The relative can be reseted at the panel of the GD Connect 12 or by the PROFIBUS communication (see chapter A.2).

Compressor absolute hours

Byte:	0074h	Compressor 1 Absolute total hours	[Word]
	0076h	Compressor 1 Absolute load hours	[Word]
	0078h	Compressor 2 Absolute total hours	[Word]
	007Ah	Compressor 2 Absolute load hours	[Word]
	007Ch	Compressor 3 Absolute total hours	[Word]
	007Eh	Compressor 3 Absolute load hours	[Word]
	0080h	Compressor 4 Absolute total hours	[Word]
	0082h	Compressor 4 Absolute load hours	[Word]
	0084h	Compressor 5 Absolute total hours	[Word]
	0086h	Compressor 5 Absolute load hours	[Word]
	0088h	Compressor 6 Absolute total hours	[Word]
	008Ah	Compressor 6 Absolute load hours	[Word]
	008Ch	Compressor 7 Absolute total hours	[Word]
	008Eh	Compressor 7 Absolute load hours	[Word]
	0090h	Compressor 8 Absolute total hours	[Word]
	0092h	Compressor 8 Absolute load hours	[Word]
	0094h	Compressor 9 Absolute total hours	[Word]
	0096h	Compressor 9 Absolute load hours	[Word]
	0098h	Compressor 10 Absolute total hours	[Word]
	009Ah	Compressor 10 Absolute load hours	[Word]
	009Ch	Compressor 11 Absolute total hours	[Word]
	009Eh	Compressor 11 Absolute load hours	[Word]
	00A0h	Compressor 12 Absolute total hours	[Word]
	00A2h	Compressor 12 Absolute load hours	[Word]

Explanations:

These are the total and loaded hours as they are listed in the compressor controls.

Statistics

Byte:	00A4h	Total delivered volume	(m³)	[LongInt]
	00A8h 00AAh	Line pressure* max. Line pressure* min. * Line pressure, on which the GD Connect 12 is regulating to.	(1/10 bar) (1/10 bar)	[Word] [Word]
	00ACh 00AEh	Volume flow max. Volume flow min.	(1/10 m³/min) (1/10 m³/min)	[Word] [Word]

The statistics can be reseted at the panel of the GD Connect 12 or by the PROFIBUS communication (see chapter A.2).

GD Connect 12 software version

Byte:	00B0h	ASCII character	"S"	[Byte]
	00B1h	ASCII character	"A"	[Byte]
	00B2h	ASCII character	"M"	[Byte]
	00B3h	ASCII character	"_"	[Byte]
	00B4h	ASCII character	"V"	[Byte]
	00B5h	Version	(e.g. <u>1</u> .00)	[Byte]
	00B7h	Revision	(e.g. 1. <u>00</u>)	[Byte]

PROFIBUS module software version

Byte:	00BEh	Version/Revision (e.g.	102 = Version 1.02)	[Byte]
-------	-------	------------------------	---------------------	--------

Addresses of Page 1

Compressor informations

Byte:	0000h	Compressor 1: Control	[Word]
		1 = Compressor module (STD) 2 = Compressor module (VSD) 3 = DELCOS 1000 4 = DELCOS 3100-L 5 = DELCOS 3100-LSR 6 = DELCOS 3100-LRS 7 = DELCOS 3100-DH 8 = DELCOS 3100-DHSR 9 = DELCOS 3100-DHRS 10 = DELCOS 3100-DHRS 11 = DELCOS 9ro-L 12 = DELCOS Pro-LSR 13 = DELCOS Pro-LRS 14 = DELCOS XL-L 16 = DELCOS 3100-LRS (V2)	24 = GD Pilot MK (ESM) 31 = GD Pilot (ESM) 33 = GD Pilot (VS) 41 = GD Pilot MK (VS)
	0002h 0004h 0006h	Compressor 1: Volume flow max. Compressor 1: Volume flow min. Compressor 1: Volume flow current	(1/10 m³/min) [Word] (1/10 m³/min) [Word] (1/10 m³/min) [Word]
	0008h 0010h 0018h 0020h 0028h 0030h 0038h 0040h 0048h 0050h	000Eh Compressor 2 0016h Compressor 3 001Eh Compressor 4 0026h Compressor 5 002Eh Compressor 6 0036h Compressor 7 003Eh Compressor 8 0046h Compressor 9 004Eh Compressor 10 0056h Compressor 11	

Byte:

Addresses of Page 1 (cont.)

Measured values GD Connect 12 / Extension modules

0060h 0062h 0064h 0066h 0068h 006Ah	Line pressure 3 Line pressure 4 Line pressure 5 Line pressure 6 Line pressure 7 Line pressure 8	(1/10 bar) (1/10 bar)	[Word] [Word] [Word] [Word] [Word] [Word]
006Ch 006Eh 0070h 0072h 0074h 0076h 0078h	Volume flow 1 Volume flow 2 Volume flow 3 Volume flow 4 Volume flow 5 Volume flow 6 Volume flow 7 Volume flow 8	(1/10 m³/min) (1/10 m³/min)	[Word] [Word] [Word] [Word] [Word] [Word] [Word]
007Ch 007Eh 0080h 0082h 0084h 0086h 0088h 008Ah	Temperature 1 Temperature 2 Temperature 3 Temperature 4 Temperature 5 Temperature 6 Temperature 7 Temperature 8	(°C) (°C) (°C) (°C) (°C) (°C) (°C) (°C)	[Word] [Word] [Word] [Word] [Word] [Word] [Word]
008Ch 008Eh 0090h 0092h 0094h 0096h 0098h 009Ah	Dew point 1 Dew point 2 Dew point 3 Dew point 4 Dew point 5 Dew point 6 Dew point 7 Dew point 8	(℃) (℃) (℃) (℃) (℃) (℃) (℃)	[Word] [Word] [Word] [Word] [Word] [Word] [Word]

Addresses of Page 2

Menu "Regulation"

Byte:	0000h	Suppre	ss warning Pmin		(min)	[Word]
	0002h 0003h	Cut-in c Cut-out	lelay delay		(s) (s)	[Byte] [Byte]
	0005h	Compe 0 = A 1 = R	ns. total bsolute elative	hours		[Byte]
	0006h	Regula 0 = Li 1 = Li 2 = H 3 = Li	te pressu ne press ne press ighest Li owest Lir	ure to ure 1 sure 2 ne pressure ne pressure		[Byte]
	0007h	Determ 0 = Li 1 = V 2 = V 3 = V 4 = V 5 = V 6 = V 7 = V 8 = V	inate vol ne press olume flo olume flo olume flo olume flo olume flo olume flo olume flo	ume flow ure ow 1 ow 2 ow 3 ow 4 ow 5 ow 6 ow 7 ow 8		[Byte]
Menu "Tim	er control"					
Byte:	0008h		Channe	el 1: Profile		[Byte]
	0009h		Channe	el 1: Day of week		[Bitmask]
			Bit 0: Bit 1: Bit 2: Bit 3: Bit 4: Bit 5: Bit 6: Bit 7:	Monday Tuesday Wednesday Thursday Friday Saturday Sunday (not used)		
	000Ah 000Bh		Channe Channe	el 1: Switch on (hour) el 1: Switch on (minute)		[Byte] [Byte]
	000Ch 000Dh		Channe Channe	el 1: Switch off (hour) el 1: Switch off (minute)		[Byte] [Byte]
	000Eh. 0014h. 001Ah. 0020h. 002Ch. 0032h. 0038h. 003Eh. 003Eh. 0044h.	.0013h 0019h .001Fh 0025h 002Bh .0031h 0037h 003Dh .0043h 0049h .004Fh	Channe Channe Channe Channe Channe Channe Channe Channe Channe Channe Channe	el 2 el 3 el 4 el 5 el 6 el 7 el 8 el 9 el 10 el 11 el 12		

GD Connect	12 warning and fa	ult regist	ers (Address range 2)	
Byte:	0050h	Warnin	gs byte 9	[Bitmask]
		Bit 0: Bit 1: Bit 2: Bit 3: Bit 4: Bit 5: Bit 6: Bit 7:	Warning Temperature 1 max. Warning Temperature 2 max. Warning Temperature 3 max. Warning Temperature 4 max. Warning Temperature 5 max. Warning Temperature 6 max. Warning Temperature 7 max. Warning Temperature 8 max.	
	0051h	Warnin	gs byte 10	[Bitmask]
		Bit 0: Bit 1: Bit 2: Bit 3: Bit 3: Bit 4: Bit 5: Bit 6: Bit 7:	Warning Temperature 1 min. Warning Temperature 2 min. Warning Temperature 3 min. Warning Temperature 4 min. Warning Temperature 5 min. Warning Temperature 6 min. Warning Temperature 7 min. Warning Temperature 8 min.	
	0052h	Warnin Bit 0-7:	gs byte 11 (not used)	[Bitmask]
	0053h	Warnin	gs byte 12	[Bitmask]
		Bit 0: Bit 1: Bit 2: Bit 3: Bit 4: Bit 5: Bit 6: Bit 7:	Warning Dew point 1 Warning Dew point 2 Warning Dew point 3 Warning Dew point 4 Warning Dew point 5 Warning Dew point 6 Warning Dew point 7 Warning Dew point 8	
	0054h	Warnin	gs byte 13	[Bitmask]
		Bit 0: Bit 1: Bit 2: Bit 3: Bit 4: Bit 5: Bit 6: Bit 7:	Warning Line pressure 1 max. Warning Line pressure 2 max. Warning Line pressure 3 max. Warning Line pressure 4 max. Warning Line pressure 5 max. Warning Line pressure 6 max. Warning Line pressure 7 max. Warning Line pressure 8 max.	
	0055h	Warnin	gs byte 14	[Bitmask]
		Bit 0: Bit 1: Bit 2: Bit 3: Bit 4: Bit 5: Bit 6:	Warning Line pressure 1 min. Warning Line pressure 2 min. Warning Line pressure 3 min. Warning Line pressure 4 min. Warning Line pressure 5 min. Warning Line pressure 6 min. Warning Line pressure 7 min.	

Annex

Addresses of Page 2 (cont.)

Byte:	0056h	Warning	gs byte 15	[Bitmask]
		Bit 0: Bit 1: Bit 2: Bit 3: Bit 4: Bit 5: Bit 6: Bit 7:	Warning Sensor Volume flow 1 Warning Sensor Volume flow 2 Warning Sensor Volume flow 3 Warning Sensor Volume flow 4 Warning Sensor Volume flow 5 Warning Sensor Volume flow 7 Warning Sensor Volume flow 8	
	0057h	Warning	gs byte 16	[Bitmask]
		Bit 0: Bit 1: Bit 2: Bit 3: Bit 4: Bit 5: Bit 6: Bit 7:	Warning Sensor Line pressure 1 Warning Sensor Line pressure 2 Warning Sensor Line pressure 3 Warning Sensor Line pressure 4 Warning Sensor Line pressure 5 Warning Sensor Line pressure 6 Warning Sensor Line pressure 7 Warning Sensor Line pressure 8	
	0058h	Warning	gs byte 17	[Bitmask]
		Bit 0: Bit 1: Bit 2: Bit 3: Bit 4: Bit 5: Bit 6: Bit 7:	Warning Sensor Dew point 1 Warning Sensor Dew point 2 Warning Sensor Dew point 3 Warning Sensor Dew point 4 Warning Sensor Dew point 5 Warning Sensor Dew point 6 Warning Sensor Dew point 7 Warning Sensor Dew point 8	
	0059h	Warning	gs byte 18	[Bitmask]
		Bit 0: Bit 1: Bit 2: Bit 3: Bit 4: Bit 5: Bit 6: Bit 7:	Warning Sensor Temperature 1 Warning Sensor Temperature 2 Warning Sensor Temperature 3 Warning Sensor Temperature 4 Warning Sensor Temperature 5 Warning Sensor Temperature 6 Warning Sensor Temperature 7 Warning Sensor Temperature 8	
	005A5Dh	Warning	gs byte 1922	[Bitmask]

Bit 0-7: (not used)

Annex

Addresses of Page 2 (cont.)

005	Ξh	Faults b	yte 3	[Bitmask]
		Bit 0: Bit 1: Bit 2: Bit 3: Bit 4: Bit 5: Bit 5: Bit 6: Bit 7:	Fault Sensor Volume flow 1 Fault Sensor Volume flow 2 Fault Sensor Volume flow 3 Fault Sensor Volume flow 4 Fault Sensor Volume flow 5 Fault Sensor Volume flow 6 Fault Sensor Volume flow 7 Fault Sensor Volume flow 8	
005H	-	Faults b	yte 4	[Bitmask]
		Bit 0: Bit 1: Bit 2: Bit 3: Bit 4: Bit 5: Bit 6: Bit 7:	Fault Sensor Line pressure 1 Fault Sensor Line pressure 2 (not used) (not used) (not used) (not used) (not used) (not used)	

Explanations:

Warning Sensor:

The failure of the sensor has not caused a deactivation of the regulation of the compressors by the GD Connect 12, i.e. the compressors will continue to be regulated by the GD Connect 12.

Fault Sensor:

The failure of the sensor has caused a deactivation of the regulation of the compressors by the GD Connect 12, i.e. the compressors will run with their internal settings.

Addresses of Page 3

Menu "Profiles"

Byte:	0000h 0001h 0002h 0003h	Profile 1: N Profile 1: N Profile 1: N Profile 1: N	Max. pressure warning Max. pressure Min. pressure Min. pressure warning		(1/10 bar) (1/10 bar) (1/10 bar) (1/10 bar)	[Byte] [Byte] [Byte] [Byte]
	0004h	Profile 1: F	Receiver volume		(1/10 m³)	[Word]
	0006h	Priorities of	compressor 34			[Bitmask]
		Bit 0: P Bit 1: P Bit 2: P Bit 3: P	Priority compressor 3 Priority compressor 3 Priority compressor 3 Priority compressor 3	= High = Norma = Low = Off	al	
		Bit 4: P Bit 5: P Bit 6: P Bit 7: P	Priority compressor 4 Priority compressor 4 Priority compressor 4 Priority compressor 4	= High = Norma = Low = Off	al	
	0007h	Priorities c	compressor 12			[Bitmask]
		Bit 0: P Bit 1: P Bit 2: P Bit 3: P	riority compressor 1 riority compressor 1 riority compressor 1 riority compressor 1	= High = Norma = Low = Off	al	
		Bit 4: P Bit 5: P Bit 6: P Bit 7: P	riority compressor 2 riority compressor 2 riority compressor 2 riority compressor 2	= High = Norma = Low = Off	al	
	0008h 0009h 000Ah 000Bh	Priorities of Priorities of Priorities of Priorities of	compressor 78 compressor 56 compressor 1112 compressor 910			[Bitmask] [Bitmask] [Bitmask] [Bitmask]
	000Ch0016h 0018h0022h 0024h002Eh 0030h003Ah 003Ch0046h 0048h0052h 0054h005Eh 0060h006Ah 006Ch0076h 0078h0082h 0084h008Eh	Profile 2 Profile 3 Profile 4 Profile 5 Profile 6 Profile 7 Profile 8 Profile 9 Profile 10 Profile 11 Profile 12				

Current system time

Byte:	00B0h	Day of week (0 = Monday 6 = Sunday)	[Byte]
	00B1h	Day	[Byte]
	00B2h	Month	[Byte]
	00B3h	Year	[Byte]
	00B4h	Hour	[Byte]
	00B5h	Minute	[Byte]
	00B6h	Second	[Word]

Addresses of Page 4

Reset time relative operating hours

Byte:	0000h	Day	[Byte]
	0001h	Month	[Byte]
	0002h	Year	[Byte]
	0003h	Hour	[Byte]
	0005h	Minute	[Word]

Reset time statistics

Byte:	0006h 0007h 0008h 0009h 000Bb	Day Month Year Hour Minute	[Byte] [Byte] [Byte] [Word]
	000Bh	Minute	[Word]

A.2 Address list for writing datas

Activate profile

Byte:	e: 0000h Profile			[Byte]
		112 13 14	Profile 112 Air station off Activate timer control	
		This Byt	e must be updated latest all 60 seconds.	
Reset datas				
Byte:	0001h	Reset st	atistic datas	[Byte]
		F0h	Reset statistic datas	
		Attention After res to the va	n ! set with command "F0h", this byte has to be reset alue "00h".	
	0002h	Reset re	lative hours	[Byte]
		F0h	Reset relative hours	
		Attention After res to the va	n ! et with command "F0h", this byte has to be reset alue "00h".	
	0003h	Reset w	arning and fault messages	[Byte]
		F0h	Reset relative hours	
		Attention After res to the va	n ! et with command "F0h", this byte has to be reset Ilue "00h".	

Switching Pages

Byte:	0004h	Page		[Byte]
-------	-------	------	--	--------

Annex B Technical datas PROFIBUS module



Power supply

Rated voltage:18 VAC +10/-15% or 24 VDC +/-15%Power consumption:approx. 2.5W

Transfer technologies

to the GD Connect 12 RS485 with 9.6 kBaud ModBus-RTU protocol to the PROFIBUS RS485 with 9.6..1500 kBaud PROFIBUS addressing using two hexadecimal switches PROFIBUS version DP-V0

• LED

- LED 1 = Power indicator
- LED 2 = PROFIBUS active
- LED 3 = Serial communication to GD Connect 12 active
- LED 4 = Download firmware

Connection assignment

Terminal st	rip	SubD-jack			
(Connection	to the GD Connect 12)	(Connection to the PROFIBUS)			
Terminal 1	0V	Pin 1	-		
Terminal 2	18 VAC or 24 VDC	Pin 2	-		
Terminal 3	PE	Pin 3	PROFIBUS signal B (-)		
Terminal 4	PE	Pin 4	-		
Terminal 5	12 VDC	Pin 5	GND		
Terminal 6	RS485+ (A)	Pin 6	-		
Terminal 7	RS485- (B)	Pin 7	-		
Terminal 8	GND	Pin 8	PROFIBUS signal A (+)		
		Pin 9	-		

Dimensions

(HxWxD) 105 x 70 x 60 mm

Gardner Denver Deutschland GmbH Argenthaler Str. 11 55459 Simmern Deutschland

Tel. +49 (0) 6761 832-0

www.gardnerdenverproducts.com e-mail: info.tampere@gardnerdenver.com