BA00072S/04/EN/07.15 Product Version 1.07.xx 71293275 Services

# Operating Instructions Fieldgate SFG500/SFM500 Operation as Asset Monitor





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## **Revision History**

Product version	Manual	Changes	Remarks
1.01.xx	BA00072S/04/EN/01.13	Original manual	
1.02.xx	BA00072S/04/EN/02.14	New function	Support of HART Remote IO
		General	Screenshots and texts updated
1.03.xx	BA00072S/04/EN/03.14	3.2.4 E-mail Settings	Options for e-mail messaging
		4.2 Assets	Grid view
1.04.xx	BA00072S/04/EN/04.14	4.2 Assets	Additionally supported HART Remote IOs
1.05.xx	BA00072S/04/EN/05.14	3.2.4 E-Mail setup 4.2 Assets 4.2.2 Asset library	Additionally supported HART Remote IOs Import, export, update of asset libraries and GSD files
1.06.xx	BA00072S/04/EN/06.15	4.2 Assets 4.2.2 Asset library	Additionally supported HART Remote IOs Filter Asset Library, Print Asset Descriptions
1.07.xx	BA00072S/04/EN/07.15	<ul> <li>3.1 Preliminaries</li> <li>3.2.1 Network Settings</li> <li>3.2.2 Date and Time</li> <li>3.2.3 Tag and Location</li> <li>3.2.4 E-Mail Settings</li> <li>3.2.5 Firmware Update</li> <li>4.1.1 PROFIBUS live list</li> <li>4.3.1 Event Logging</li> </ul>	Screenshots updated Screenshots and texts updated Screenshots and texts updated Screenshots updated Screenshots and texts updated Screenshots updated Screenshots and texts updated Screenshots and texts updated

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## 1 Safety

### 1.1 Designated use

Fieldgate SFG500 is a system component that provides an independent access route to a PROFIBUS network. It may be used in a variety of applications that are supported by specific operating modes. The operating modes are determined by an optional memory card (Fieldgate Module SFM500).

With Fieldgate Module "Asset Monitor", Fieldgate SFG500 listens to PROFIBUS traffic and presents the results in its web server. The user is able to check the status of devices according to Namur NE 107. Events on the network can also be logged, and e-mails sent if particular conditions are met. Apart from setting PROFIBUS device addresses, Asset Monitor cannot be used to configure devices. In this case Fieldgate SFG500 must be used together with FieldCare as described in Operating Instructions BA00071S/04/EN.

### 1.2 Installation, commissioning and operation

Fieldgate SFG500 has been designed to operate safely in accordance with current technical safety and EU directives. Field devices, links, junction boxes, cables and other hardware used in conjunction with the Fieldgate SFG500 module must also be designed to operate safely in accordance with current technical safety and EU directives.

If devices are installed incorrectly or used for applications for which they are not intended, or if the Fieldgate SFG500 module is not configured correctly, it is possible that dangers may arise. For this reason, the system must be installed, connected, configured, operated and maintained according to the instructions in this and the associated manuals: personnel must be authorised and suitably qualified.

### 1.3 Operational safety

When using Fieldgate SFG500 as an Asset Monitor, the instructions in Chapter 1.3 of BA0070S/04/EN, Fieldgate SFG500: Installation and Commissioning, shall be observed.

### 1.4 IT security

We only provide a warranty if the device is installed and used as described in the Operating Instructions. The device is equipped with security mechanisms to protect it against any inadvertent changes to the device settings.

IT security measures in line with operators' security standards and designed to provide additional protection for the device and device data transfer must be implemented by the operators themselves.

### 1.5 Supplementary documentation

Table 1-1 indicates the documents, planned and realized, containing safety relevant information, installation, commissioning and operating instructions for Fieldgate SFG500 and its web server.

The manual PROFIBUS guidelines contains information on how to design and install a PROFIBUS network, in particular on how to ground the network in order to avoid electromagnetic interference on the bus.

All documentation available at the time of release is included on the Fieldgate SFG500 CD-ROM and can be installed by default in **Start=>Programs=>Endress+Hauser=Fieldgate SFG500=>Manuals** from it.

Description	Document type	Designation	Order No.
Fieldgate SFG500; Installation and Commissioning	Operating manual	BA00070S/04/EN	71293271
Fieldgate SFG500; Operation as Access Point	Operating manual	BA00071S/04/EN	71293273
Fieldgate SFG500; Operation as Asset Monitor	Operating manual	BA00072S/04/EN	71293275
Fieldgate SFG500; Operation as Process Monitor	Operating manual	BA00074S/04/EN	-
Fieldgate SFG500; Getting Started	Operating manual	BA00073S/04/A2	71293265
PROFIBUS Guidelines	Operating manual	BA00034S/04/EN	56004242

on

### 1.6 Conventions and icons

In order to highlight safety relevant or alternative operating procedures in the manual, the following conventions have been used, each indicated by a corresponding icon in the margin.

Icon	Meaning
	DANGER! This symbol alerts you to a dangerous situation. Failure to avoid this situation will result in serious or fatal injury.
	WARNING! This symbol alerts you to a dangerous situation. Failure to avoid this situation can result in serious or fatal injury.
	CAUTION! This symbol alerts you to a dangerous situation. Failure to avoid this situation can result in minor or medium injury.
NOTICE	NOTE! This symbol contains information on procedures and other facts which do not result in personal injury.

### **Explosion protection**

Safety conventions

Icon	Meaning
(Ex)	<b>Device certified for use in explosion hazardous area</b> If the device has this symbol embossed on its name plate it can be installed in an explosion hazardous area in accordance with the specifications in the certificate or in a safe area
<u>Ex</u>	<b>Explosion hazardous area</b> Symbol used in drawings to indicate explosion hazardous areas. Devices located in and wiring entering areas with the designation "explosion hazardous areas" must conform with the stated type of protection
Ex	Safe area (non-explosion hazardous area) Symbol used in drawings to indicate, if necessary, non-explosion hazardous areas. Devices located in safe areas still require a certificate if their outputs run into explosion hazardous areas

### **Electrical symbols**

Icon	Meaning
	<b>Direct voltage</b> A terminal to which or from which a direct current or voltage may be applied or supplied
$\sim$	Alternating voltage A terminal to which or from which an alternating (sine-wave) current or voltage may be applied or supplied
<u> </u>	<b>Grounded terminal (FE)</b> A grounded terminal, which as far as the operator is concerned, is already grounded by means of an earth grounding system
	<b>Protective grounding (earth) terminal</b> A terminal which must be connected to earth ground prior to making any other connection to the equipment
$\bot$	Signal ground (GND) A terminal on to which the shield of a signal cable can be connected
$\bigtriangledown$	<b>Equipotential connection (earth bonding)</b> A connection made to the plant grounding system which may be of type e.g. neutral star or equipotential line according to national or company practice
$\widehat{\mathbf{A}}$	Electrostatic discharge A terminal or location at which an electrostatic discharge might cause damage to the module circuitry

## 2 Function and System Design

### 2.1 Function

The Asset Monitor functionality of Fieldgate SFG500 is obtained when a Fieldgate Module SFM500 with corresponding software is inserted in its memory card slot. In Asset Monitor mode, Fieldgate uses its parallel path to a PROFIBUS DP network to monitor traffic, build up a list of the bus participants and to monitor bus events. It offers the following functions:

- Live list of all device on the bus with status information to Namur NE 107
- Audit trail of device events with type of event and time stamp
- E-mail notification of device events

When Fieldgate SFG500 is operating in Asset Monitoring mode, it can still be used together with FieldCare. The additional functions are presented in the "Embedded Web Server" feature of the SFG500 DTM, see Operation Instructions BA00071S/04/EN, Fieldgate SFG500: Operation as Access Point.

### 2.2 System design

Fig. 2.1 shows Fieldgate SFG500 operating as an Asset Monitor in a PROFIBUS network.



Fig. 2-1: System architecture for Fieldgate SFG500 operating as an asset monitor

The control network comprises one or more PLCs or DCSs and one or more PROFIBUS DP segments. Connected to the PROFIBUS DP segment are PROFIBUS DP slaves, Remote I/Os and segment couplers or links. Through its Ethernet port (LAN1), Fieldgate SFG500 allows a Web browser access to the information it has collected. If there is more than one segment in the PROFIBUS DP network, a separate Fieldgate SFG500 is required for each.

## 3 Commissioning

#### NOTE!

NOTICE

- This section describes the steps to physically commission Fieldgate SFG500 for use as a asset monitor only.
- General commissioning for use is described in BA00070S/04/EN, Fieldgate SFG500: Installation and Commissioning, commissioning for other modes in the associated manual, see Chapter 1.4.
- The manual assumes that the Fieldgate battery has been inserted and the network is up and running.

### 3.1 Preliminaries

Install and commission Fieldgate SFG500 as described in Operating Instructions BA00070/04/EN, Fieldgate SFG500: Installation and Commissioning.

- 1. Install/wire up Fieldgate SFG500 as described in Chapters 4/5 of the above manual
- 2. Commission Fieldgate SFG500 as described in Chapter 7.2 of the above manual
  - Ensure that Fieldgate Module SFM500 is correctly inserted into the card slot
- 3. Connect the laptop to the LAN2 port of Fieldgate SFG500
  - If appropriate disable the proxy server used by your internet browser as described in Chapter 7.1.2 of the above manual
  - Connect to Fieldgate using the address 192.168.253.1
  - Change the address of the LAN1 port of Fieldgate SFG500 to the one you require
- 4. Complete the commissioning of Fieldgate as described in Chapter 7.2.5 to 7.2.7.
- 5. When commissioning is complete, Fieldgate SFG500 can be accessed thorough its LAN1 using the address set up in Step 3



- 6. On the start page, press Login in the top right hand corner to disable write protection:
  Enter a User Name (default = admin) and Password (default = admin)
  - Write protection remains disabled until Logout is pressed or the Web browser is closed

Fieldgate SFG500 Asset Monitor Endress+Hauser							er 🖽			
Start Network Assets	Events Settin	ngs Informa	ation					12. J	an 2000 17.44.0	4 🔜 siter Login
Status	Asset Stat	us								
Asset Library	PROFIBUS									
	≣				Devices: 4	2	😢 0	💟 1 🛛 🔺 -	I 🗇 0	10
	#000	M001	M002	#003	#004	#005	#006	#007	#008	#009
	#010	#011	#012	#013	🐨 S014 🗹	#015	#016	#017	#018	#019
	#020	#021	#022	#023	#024	#025	#026	#027	#028	#029
	🔻 S030 🔽	#031	#032	#033	#034	#035	#036	#037	#038	#039
	#040	#041	#042	#043	#044	#045	#046	#047	#048	#049
	#050	#051	#052	#053	#054	#055	#056	#057	#058	#059
	#060	#061	#062	#063	#064	#065	#066	#067	#068	#069
	#070	S071 🥚	#072	#073	#074	#075	#076	#077	#078	#079
	#080	#081	#082	#083	#084	#085	#086	#087	#088	#089
	#090	#091	#092	#093	#094	#095	#096	#097	#098	#099
	#100	#101	#102	#103	#104	#105	#106	#107	#108	#109
	#110	#111	#112	#113	#114	#115	#116	#117	#118	#119
	🐨 S120 🔻	#121	#122	#123	#124	#125	#126			

7. You can now commission the asset monitor

### 3.2 Settings

### 3.2.1 Network Settings

#### NOTE!

NOTICE

 If you have commissioned Fieldgate SFG500 in accordance with Operating Instructions BA00070S/04/EN, Fieldgate SFG500: Installation and Commissioning, the IP address of the LAN1 will be already set.

For all operating modes, the IP address of LAN1 must be set to one reachable by the other system components

Open the Settings menu by clicking on the Settings tab of the Web Server

 Select Network Settings

Fieldgate	s Events Settings	Asset Monitor	Endress + Hauser 💷 22. Apr 2015 07:55:42 💷 🔛 Login
Network Settings	Network Set	tings	
Date and Time	LAN1 Settings		
E-mail Settings	IP Address LAN1	10.126.100.54	
Firmware Update	Netmask LAN1	255.255.255.0	
	Default Gateway	10.126.100.1	
	<b>VDNS Setting</b>	s	
	Preferred DNS	10.126.16.21	
	Alternate DNS		
	Apply		

- 2. Enter the desired IP Address, Network Mask and Default Gateway
  - Press **Apply** to apply the changes to Fieldgate SFG500

Parameter	Description
IP Address LAN1	IP address to be used for Fieldgate SFG500 LAN1 port
Network Mask	IP address of the sub network in which the Fieldgate is integrated
Default Gateway	IP address of the default gateway of the sub network in which the Fieldgate is integrated
Preferred DNS	IP address of the preferred name server
Alternative DNS	IP address of the alternative name server
Button	
Apply	Press to apply the changes to Fieldgate SFG500

Network Setting parameters

### 3.2.2 Date and Time

#### NOTE!

NOTICE

- If you have commissioned Fieldgate SFG500 in accordance with Operating Instructions BA00070S/04/EN, Fieldgate SFG500: Installation and Commissioning, the time and date will be already set.
- It is recommended to initially adjust the system time manually, e.g. via implementation of PC settings. Subsequently activate the automatic time synchronization.

The date and time stored in the Fieldgate can also be changed in the **Settings** tab

Open the Settings menu by clicking on the Settings tab of the Web Server

 Select Date and Time

Fieldgate	SFG500	Asset Monitor	Endress+Hauser 🖽
Start Network Assets	Events Settings Info	prmation	22. Apr 2015 07:58:52 🥅 🚟 Login
Network Settings	Date and Time	Settings	
Date and Time Tag and Location	Quick Setup		
E-mail Settings	Use client PC settings:	Apply	
Firmware Update	Advanced Setup		
	Date: Time: Timezone: Apply manual settings:	22/04/2015 07:56:19 (+01:00) Amsterdam, Berlin, Rome, Vienna, Prague, Brussels Apply	×
	Time synchroni	zation Settings	
	Time synchronization o	n/off 🗹	
	Preferred NTP Server	192.168.240.1	
	Alternate NTP Server	1.2.3.4	
		Apply	

2. Either in **Quick Setup**, press **Apply** to apply the settings of the connected computer to Fieldgate SFG500 or

in **Advanced Setup**, enter a **Time, Date** and **Timezone** and press **Apply** to apply the changes to Fieldgate SFG500

Date and Time parameters	Parameter	Description			
Dute una rime parametero	1 arameter	Description			
	Quick Setup				
	Apply	Press Apply to apply the settings of the connected computer to Fieldgate SFG500			
	Advanced Setup				
	Date	Enter the date in the format dd/mm/yyyy			
		<ul> <li>The icon next to the entry field opens a calendar from which a date can be selected with a double click</li> </ul>			
	Time	Enter the current time			
	Timezone	Enter the time zone in which the Fieldgate is located			
	Button				
	Apply	Press to apply the changes to Fieldgate SFG500			
	Extended Configurat	on			
	Time synchronization	Activation/Deactivation of the time synchronization service			
	Preferred NTP	IP address of the preferred time server			
	Alternative NTP	IP address of the alternative time server			

### 3.2.3 Tag and Location

Tag and Location displays the Fieldgate Device Tag and allows user information on its location etc. to be stored in the Fieldgate

- 1. Open the Settings menu by clicking on the  ${\bf Settings}$  tab of the Web Server
  - Select Tag and Location

Fieldgate	SFG50	0 Asset Monitor	Endress+Hauser 🖾			
Start Network Assets	Events Setting	Is Information	5. Jun 2015 10:08:01 💻 💥 Logout			
Network Settings	Tag and L	ocation Settings				
Date and Time	SFG500 Identification					
E-mail Settings	Device Tag: SFG500_NewTagName					
Firmware Update	Additional	Information				
	Location:		^			
	Contact:		~			
			^			
			~			
	Description:		^			
			~			
	Apply					

- 2. Enter a Fieldgate **Location**, **Contact** and **Description** as required
- 3. Press **Apply** to apply the changes to Fieldgate SFG500

Parameter	Description		
SFG500 Identificati	SFG500 Identification		
Device tag	Displays the Device Tag stored in Fieldgate SFG500		
Additional Informa	tion		
Location	User information on the location of the Fieldgate Note! The following characters are permitted for the Fieldgate identification (= name of Fieldgate). - Letters "a " "z " and "A " "Z " (without taking case into account) - Numbers "0 " "9 " - Special characters e.g ". " (= period) and "- " (= minus), but not as the first character All other characters are not permitted. These include German umlauts, symbols such as "&" etc.		
Contact	User data on the person responsible for Fieldgate SFG500, e.g. name, e-mail address		
Description	User description of the Fieldgate SFG500, e.g. position in network		
Button	·		
Apply	Press to apply the changes to Fieldgate SFG500		

# Tag and Location parameters

### 3.2.4 E-mail Settings

E-mail Settings allows setting the messaging services for device and bus incidences.

Open the Settings menu by clicking on the Settings tab of the Web Server

 Select E-mail Settings

Fieldgate SFG500 Asset Monitor		Endress+Hauser 🖾
Start Network Asset	s Events Settings Information	5. Jun 2015 10:09:27 🥅 🚟 Logout
Network Settings Date and Time Tag and Location E-mail Settings Firmware Update	E-mail Settings  E-mail service SMTP Server Settings E-mail addresses and subject Apply Send testmail	

2. Enter the data for **E-mail service**.

E-mail service		
E-mail service On/Off:	V	
E-Mail send trigger	event l	ased based
E-mail interval:	10 -	Minutes -
Check e-mail On/Off:		
E-mail check interval:	1	Dav(s)

Parameter	Description	
E-mail service On/Off	Choose if e-mails are to be sent	
E-mail trigger	Specify when an E-mail is to be sent	
	time based: E-mail is sent at a defined time	
	event based: E-mail is sent at a defined event	

#### 2.1 Options for time based e-mail messaging

Parameter	Description
E-Mail Interval	Specify the interval for E-mails to be sent. The input is optionally in minutes, hours or days.
Check E-Mail On/Off	Choose if a Check E-Mail should be sent in case of no event triggering Emails at defined intervals.
E-Mail Check interval	See in which intervals a Check E-mail is sent. The interval depends on the interval defined, but is never less than one day.

#### 2.2 Options for event based E-Mail messaging

E-mail Settings				
▼E-mail service				
E-mail service On/Off:	1			
E-mail send trigger	©t ⊚e	me based vent based		
Check E-mail On/Off:	1			
E-mail check interval:	1	Day(s)		
EventFilter				
Event Filter options			(	
Network			[	V
Device appeared		1		
Device disappeared				
▼ Asset				
Diagnosis chan	ged		1	
▼ User				
Logging starte	Logging started			
Logging stopped		1		
Logging cleared				
Asset Library Update done			V	
Time and/or date were changed				
▼ System			1	
Corrupted even	ntlog	file detected and deleted		V

Parameter	Description	
EventFilter	Define events triggering the dispatch of E-Mails	
Check E-Mail On/Off	Choose if a Check E-Mail should be sent in case of no event triggering E-mails at defined intervals	
E-Mail Check interval	See in which intervals a Check E-mail is sent. The interval depends on the interval defined, but is never less than one day	

### 3. Enter the SMTP Server Settings and the E-mail addresses and subject, see below

Fieldgate	SFG500 Asset Monitor	Endress+Hauser 🖾
Start Network Assets	Events Settings Information	5. Jun 2015 10:43:55 🥅 🚟 Logo
Network Settings	E-mail Settings	
Date and Time	► E-mail service	
Tag and Location	▼SMTP Server Settings	
Firmware Update	Server:         10.126.100.109           Port:         25           Authentication:	
	Sender:     stgsou0gyourCompany.com       Recipient 1:     tom.jones@yourCompany.com       Recipient 2:	×

- 4. Press **Apply** to apply the changes to Fieldgate SFG500
- 5. Press Send testmail to check whether the settings are correct
  If necessary change the settings and confirm with Apply

E-mail Setting parameters	Parameter	Description	
	STMP Server Settings		
	Address	Enter the e-mail server url or the IP address of the SMTP server (e-mail server)	
		here	
	Port	Enter the number of the port used to access the e-mail server	

Parameter	Description	
Authentication	Check the box if authentication is required by your e-mail server	
User Name	If authentication is required for the specified SMTP Gateway, enter the user name	
	here:	
	<ul> <li>Leave blank if no authentication is requested or no SMTP Gateway is used</li> </ul>	
Password	If authentication is required for the specified SMTP Gateway, enter the password	
	here:	
	<ul> <li>Leave blank if no authentication is requested or no SMTP Gateway is used</li> </ul>	
E-mail addresses and subje	ct	
Sender	Enter the sender address of the Fieldgate here, e.g. fieldgate@company.com.	
	With some providers, the e-mail address of the account holder must be specified as	
	the sender address. No mails will be accepted from other sender addresses.	
	Where the sender address is freely selectable, choose a serious address to avoid	
	trouble with spam filters.	
Recipient 1 Recipient 5	Enter the recipients of the mail here, e.g. name@company.com	
Subject	Enter the subject which will appear in the subject box of the e-mail	
Button		
Apply	Press to apply the changes to Fieldgate SFG500	
Send testmail	Press to send a mail to all recipients in order to test the setup	

### 3.2.5 Firmware Update

The latest firmware version can be supplied as a file must be downloaded through the Web browser as follows.

1. Open the **Settings** menu by clicking on the **Settings** tab of the Web Server – Select **Firmware Update.** 

Fieldgate	SFG500 Asset Monitor	Endress+Hauser 🖽
Start Netzwerk Assets	Events Einstellungen Informationen	5. Jun 2015 10:12:30 🥅 🚟 Logout
Netzwerk Einstellungen	Firmware Update	C
Datum und Zeit	Installierte Version	
E-Mail Einstellungen Firmware Update	Version: 01.07.00-02303	
	Update	
	Firmware Datei: Browse Start	

- Press Browse and navigate to the folder where the firmware file has been saved
   Select the file then press Open to place it in the entry field.
- 3. Press **Start** to download the firmware to Fieldgate SFG500.
- 4. After download Fieldgate SFG500 will automatically shut down and reboot with the new firmware.

Grid View

### 4 Asset Monitor

### 4.1 Network

### 4.1.1 PROFIBUS live list

The PROFIBUS live list shows all devices that can be seen by the selected Fieldgate SFG500 when it is listening to the bus. If the listener was active during the initialization of the slaves, the slave ID is shown.

#### 1. Open the Network menu by clicking on the **Network** tab.

#### 2. Click on **PROFIBUS live list**

- The SFG500 PROFIBUS Live List window opens:

Fieldgate	SFG50	<b>)0</b> As	set Monito	or			E	ndress	+Haus	er 🖽
Start Network Asset	tart Network Assets Events Settings Information							28.	May 2015 14:29	:09 📕 👬 Logi
PROFIBUS Live List	PROFIBU	S Live Lis	t				2 Mast	er (Maace) 0 Ol	C O Diag O Fail	1.0ff 1.5EG
PROFIBUS Settings	🗮 Scanning i	n progress: 7 of	13 devices scar	nned.			13 Slav	es (Sxxx) 0 01	C O Diag 1 Fail	12 Off 112 Free
Slave Settings	M000	M001	S002	#003	#004	S005	#006	#007	S008	#009
	#010	#011	#012	#013	#014	#015	#016	#017	#018	#019
	#020	#021	#022	#023	#024	#025	#026	#027	#028	#029
	#030	#031	#032	#033	#034	#035	#036	#037	#038	#039
	#040	#041	#042	#043	#044	#045	#046	#047	#048	#049
	#050	#051	#052	#053	#054	#055	#056	#057	#058	#059
	#060	#061	#062	#063	#064	#065	#066	#067	#068	#069
	#070	S071	S072	S073	S074	S075	S076	S077	S078	S079
	#080	#081	#082	#083	#084	#085	#086	#087	#088	#089
	#090	#091	#092	#093	#094	#095	#096	#097	#098	#099
	#100	#101	#102	#103	#104	#105	#106	#107	#108	#109
	#110	#111	#112	#113	#114	#115	#116	#117	#118	#119
	#120	#121	#122	#123	S124	#125	#126			

Element	Meaning
Overview table	<ul> <li>Indicates the number of devices on the bus, together with their type and status</li> <li>Green: Device in cyclic data exchange, status OK</li> <li>Yellow: Device in cyclic data exchange, has diagnostic message</li> <li>Orange: Device failed to enter into cyclic data exchange</li> <li>Grey: Device is present, but not in cyclic data exchange</li> <li>Blue: Fieldgate SFG500</li> </ul>
<b>:</b>	Shows the connected devices in a list view
	Shows the connected devices in a table view
Scanning state	Shows the number of devices the extended information (tag, diagnosis, etc.) has been read from. If all devices have been scanned "scanning completed" will be displayed. In case of connecting new devices later on, only these additional devices will be displayed in the scanning state.
Live list matrix	Indicates the type and PROFIBUS address of the slave Mxxx: master with PROFIBUS address xxx Syyy: slave with PROFIBUS address yyy Colour code: as in overview

#### List View

- 4. Click the button List View to display a list of connected devices
  Click on a device to show its details
  Click the button Table View to return to the view above

Fieldgate	SFG5	00	Asset Monitor			Endress+H	lauser 🕻	
Start Network Assets	Events Se	ttings Info	rmation			19. Mar 2	014 09:27:53 💻 👬	Login
PROFIBUS Live List	PROFIBI	JS Live L	ist			3 Master (Myyy) 1 OK 0	Diag 0 Fail 1 Off	1 SEG
PROFIBUS Settings						15 Slaves (Sxxx) 6 OK 4	Diag 0 Fail 5 Off 10	09 Free
Slave Settings	Slave T	Ident 🔻	Device Type	Vendor	Тап		X Status X	
	5008	0x8754	berice type - x	Unknown	A rug		OFF	-
	5021	0x05D3		Unknown			OFF	E
	5022	0x152C	PROSONIC M	Endress+Hauser	ProSoni	cM 22	OK	
	S030	0x071D	3730-4	SAMSON AG	-/-		OFF	
	S035	0x8052	DP/PA-Link (IM157)	SIEMENS AG			OFF	
	S037	0x1503	FEB 24	Endress+Hauser	TSR125		OFF	
	S057	0x1523	TMT184	Endress+Hauser	_TR8T1		ОК	
	S064	0x1522	FMR 2XX	Endress+Hauser	Micropile	otM_2	ОК	
	S065	0x152C	PROSONIC M	Endress+Hauser	Prosonio	cM_1	ОК	
	S066	0x152D	LEVELFLEX M	Endress+Hauser	Levelfle:	xM_2	DIAG	
	S068	0x1522	FMR 2XX	Endress+Hauser	Micropile	otM_1	OK	
	S069	0x152D	LEVELFLEX M	Endress+Hauser	Levelfle	xM_1	ОК	
	S075	0x06CA	ND9000PA	Metso Automation	CSV101		DIAG	-
	Details of Serial Numbe HW Revision SW Revision	f <mark>Slave: [St</mark> er: 43301 : 1.1 : 1.3	037] FEB 24 "TSR12 95	5 "				

Element	Meaning
Overview table	Indicates the number of devices on the bus, together with their type and status Green: Device in cyclic data exchange, status OK Yellow: Device in cyclic data exchange, has diagnostic message Orange: Device failed to enter into cyclic data exchange Grey: Device is present, but not in cyclic data exchange Blue: Fieldgate SFG500 Shows the connected devices in a list view
	Shows the connected devices in a table view
Live list	
Slave	Slave ID in PROFIBUS live list (Saaa, aaa = PROFIBUS address)
Ident	PROFIBUS identification code for slave device type
Device Type	Manufacturer's device type identification
Serial No.	Manufacturer's serial number of the slave
Tag	Tag No. of the slave
Status	<ul> <li>Status</li> <li>OK: No events since last restart of live list</li> <li>DIAG: Device has issued a diagnostic message since last restart of live list</li> <li>FAIL: Device has failed since last restart of live list</li> </ul>
Details of Slave	
Vendor	Manufacturer or vendor of the selected slave
HW Revision	Hardware revision of the selected slave
SW Revision	Software revision of the selected slave

### 4.1.2 **PROFIBUS Monitor**

- 1. Open the Network menu by clicking on the **Network** tab
- 2. Click on **PROFIBUS Monitor** 
  - The PROFIBUS Monitor window opens:

Fieldgate S	SFG5	00 Asse	et Monitor			Endress+Hauser	30
Start Network Assets	Events Se	ttings Informat	tion			19. Mar 2014 09:33:28 💻	Login
PROFIBUS Live List PROFIBUS Monitor PROFIBUS Settings	Start time: 19	<b>JS Monitor</b> Mrz 2014 09:13:11	Restart				
slave settings	Slave	🔨 Ident 🛛	🛦 Status 🔼	# Inits	🔽 # Diag	🔽 Last Diagnosis Time 🛛 🛣	
	S005	0x09A8	DIAG	0	2	19. Mar 2014 09:13:18	<u> </u>
	S006	0x801E	DIAG	0	7	19. Mar 2014 09:24:32	
	S008	0xB754	OFF	0	0	19. Mar 2014 09:13:19	
	S021	0x05D3	OFF	0	0	19. Mar 2014 09:13:19	
	S022	0x152C	ОК	0	0	19. Mar 2014 09:33:22	
	S030	0x071D	OFF	0	0	19. Mar 2014 09:13:19	
	S035	0x8052	OFF	0	0	19. Mar 2014 09:13:19	
	S037	0x1503	OFF	0	0	19. Mar 2014 09:13:19	
	S057	0x1523	ОК	0	0	19. Mar 2014 09:13:20	
	S064	0x1522	ОК	0	0	19. Mar 2014 09:13:20	
	S065	0x152C	ОК	0	0	19. Mar 2014 09:13:20	
	S066	0x152D	DIAG	0	2	19. Mar 2014 09:13:20	
	S068	0x1522	ОК	0	0	19. Mar 2014 09:13:20	
	5069	0x152D	OK	0	n	19 Mar 2014 09:13:20	*
	Details of	f Slave: [S006	] ET 200M (IM	153-2) DP	V1		
	Parameteris. Configuratio Last Diagno:	. data: n data: sis: 08 0C 00 0 00 00 00 00	1 80 1E 43 18 00 08 0 00 00 00 00 00 00 00	82 00 00 00 0 00 00 00	0 00 00 83 C1 26	84 C0 33 84 C1 26 84 C2 26 1C 01 04 41 0D 1C 00 00 65 10 08 02	00 00 10

### 3. The parameters have the following significance:

	X7 ·						
Parameter	Meaning						
Restart	Restarts the PROFIBUS Monitor						
Diagnostic table							
Slave							
Ident	PROFIBUS identification code for slave device type						
Status	Status						
	<ul> <li>OK: No events since last restart of monitor</li> </ul>						
	<ul> <li>DIAG: Device has issued a diagnostic message since last restart of monitor</li> </ul>						
	<ul> <li>FAIL: Device has failed since last restart of monitor</li> </ul>						
Init	Indicates the number of device initializations since the last restart of monitor						
Diag	Indicates the number of diagnostic messages since the last restart of monitor						
Last Diagnosis Time	Indicates the time of the last diagnostic message issued by the device						
	- If there has been no message, the time of the last monitor restart is shown						
Details of Slave	·						
Parameter String	Parameter string of selected slave (shown only after an initialization)						
Config String	Configuration string of selected slave (shown only after an initialization)						
Last Diagnosis	Diagnosis string of selected slave (shown only after an diagnostic message)						

### 4.1.3 **PROFIBUS Settings**

#### NOTE!

NOTICE

• The set up of Fieldgate SFG500 is described in Chapter 7.2.7 of Operating Instructions BA00070S/04/EN, Fieldgate SFG500 Installation and Commissioning

The PROFIBUS settings list shows the detected baudrate, the PROFIBUS address of the selected Fieldgate and detected bus parameters used by the Class 1 master. The window can be used to change the bus parameters, however, it is important to note that all the PROFIBUS DP devices, including couplers and links, connected to a particular network must have the same communication settings

- 1. Open the Network menu by clicking on the Network tab
- 2. Click on PROFIBUS Settings
  - The SFG500 PROFIBUS Settings window opens:

Fieldgate	SFG500 A	sset Monitor			Endress+Hauser 🖾		
Start Network Assets	Events Settings Infor	mation			19. Mar 2014 09:34:02 💻 👪 Login		
PROFIBUS Live List	PROFIBUS Setting	js					
PROFIBUS Monitor	<b>Configuration Mode</b>						
PROFIBUS Settings Slave Settings	⊛Auto Mode © Manual Mode						
	Baudrate						
	Baudrate 1500 -	kBit/s					
	<b>Address Parameters</b>						
	Station Address Highest Station Address	2 <del>-</del>					
	Timing Parameters						
	Slot Time	300 tBit	Target Rotation Time	10610	tBit		
	Min. Station Delay Time	11 tBit		= 7.0	ms		
	Max. Station Delay Time	150 tBit	Gap Update Factor	10			
	Quiet Time	0 tBit	Max. Retry Limit	1			
	Set Time	1 tBit					
	Apply active on bus						

3. The parameters have the following significance:

Parameter	Description
Configuration Mode	
Auto Mode	Fieldgate SFG500 detects the PROFIBUS parameters and sets its own address - The detected PROFIBUS parameters are displayed - Overwriting is disabled
Manual Mode	<ul> <li>Writing is enabled and the user can set the PROFIBUS parameters</li> <li>Fieldgate must use the same parameters as all other PROFIBUS equipment otherwise communication will fail</li> <li>A return to manual mode will cause all changes to be lost and Fieldgate will detect the PROFIBUS parameter and set its own address</li> </ul>
Baudrate	
Baudrate	<ul> <li>Indicates the baudrate detected by Fieldgate SFG500</li> <li>To change the baudrate: <ul> <li>Select Manual mode</li> <li>Select a new baudrate from the pull-down menu and press Apply</li> <li>If the baudrate is in conflict with the one used by the master, a message appears</li> <li>Selecting Auto mode will cause all changes to be lost</li> </ul> </li> </ul>

Parameter	Description
Address Parameters	
Station Address	<ul> <li>Fieldgate SFG500 PROFIBUS DP address (Master Class 2) that it has assigned automatically to itself after listening to the bus</li> <li>To force a new address (0 - 126): <ul> <li>Select Manual mode</li> <li>Enter a new unoccupied address press Apply</li> <li>Selecting Auto mode will cause all changes to be lost</li> </ul> </li> </ul>
Highest Station Address	Indicates the address range that is scanned for token passing
Timing Parameters	
Slot Time	Monitoring time – 'Wait for receipt' – of the senders (Requestor) of telegram for the acknowledgement of the recipient (Responder). After expiration, a retry occurs in accordance with the value of 'Max. telegram retries'.
Min. Station Delay Time	Shortest time period that must elapse before a remote recipient (Responder) may send an acknowledgement of a received query telegram. The shortest time period between receipt of the last Bit of a telegram to the sending of the first Bit of a following telegram.
Max. Station Delay Time	Longest time period that must elapse before a Sender (Requestor) may send a further query telegram. Greatest time period between receipt of the last Bit of a telegram to the sending of the first Bit of a following telegram. The Sender (Requestor, Master) must wait at least for this time period after the sending of an unacknowledged telegram (e.g. Broadcast only) before a new telegram is sent.
Quiet Time	Time delay that occurs for modulators (Modulator-trip time) and Repeaters (Repeater-switch time) for the change over from sending to receiving.
Setup Time	Minimum period "reaction time" between the receipt of an acknowledgement to the sending of a new query telegram (Reaction) by the Sender (Requestor).
Token Rotation Time	Pre-set nominal Token cycling time within which the Sender authorization (Token) will cycle around the ring. How much time the Master still has available for sending data telegrams to the Slaves is dependent on the difference between the nominal and the actual token cycling time.
Gap Update Factor	Factor for determining after how many Token cycles an added participant is accepted into the Token ring. After expiry of the time period G*TTR, the Station searches to see whether a further participant wishes to be accepted into the logical ring.
Max Retries Limit	Number of times the Fieldgate will try to establish communication with a device before it flags it as faulty
Button	
Apply	Applies any changes to Fieldgate SFG500

### 4.1.4 Slave Settings

#### NOTE!

NOTICE

 For a fully operational system, an address change may result in a host application "losing" the device concerned. In this case, the application must be reconfigured with the new address to ensure that it functions correctly.

**Slave Settings** allows the user to change the address of the selected PROFIBUS device, e.g. during commissioning of the network.

- 1. Open the Network menu by clicking on the Network tab
- 2. Click on Slave Settings
  - The PROFIBUS slave settings window opens:

Fieldgate	SFG500 Asset Monitor	Endress+Hauser 🖽
Start Network Asset	s Events Settings Information	19. Mar 2014 09:35:32 💷 📰 Login
PROFIBUS Live List PROFIBUS Monitor PROFIBUS Settings Slave Settings	Current Address       New Address       Apply	

- 3. Select the address of the device whose address must be changed from the **Current Address** drop-down menu
- 4. Select the address the device should be given in the **New Address** drop-down menu
- 5. Press **Apply** to write the change of address to the device
  - Pressing **Cancel** will discard all changes and leave the device with its old address
  - A possible reason for a failure to change an address is that the device is locked

### 4.2 Assets

### 4.2.1 Status

Asset Status List displays the current status of the PROFIBUS devices on the bus segment connected to Fieldgate SFG500. The status is categorized according to NAMUR NE 107.

- 1. Open the Asset menu by clicking on the **Asset** tab
- 2. Click on Asset Status List
  - The Asset Status List window opens

Fieldgate SFG500 Asset Monitor Endress+Hauser										
Status Asset Library	Asset State	us								
					Devices: 4	2	<b>3</b> 0	<b>V</b> 1	<u>î</u> 1 🗇 0	10
	#000	M001	M002	#003	#004	#005	#006	#007	#008	#009
	#010	#011	#012	#013	🐨 S014 💟	#015	#016	#017	#018	#019
	#020	#021	#022	#023	#024	#025	#026	#027	#028	#029
	🐨 S030 🜌	#031	#032	#033	#034	#035	#036	#037	#038	#039
	#040	#041	#042	#043	#044	#045	#046	#047	#048	#049
	#050	#051	#052	#053	#054	#055	#056	#057	#058	#059
	#060	#061	#062	#063	#064	#065	#066	#067	#068	#069
	#070	S071 🤞	#072	#073	#074	#075	#076	#077	#078	#079
	#080	#081	#082	#083	#084	#085	#086	#087	#088	#089
	#090	#091	#092	#093	#094	#095	#096	#097	#098	#099
	#100	#101	#102	#103	#104	#105	#106	#107	#108	#109
	#110	#111	#112	#113	#114	#115	#116	#117	#118	#119
	▼ S120 ▼	#121	#122	#123	#124	#125	#126			

Element	Meaning
Overview table	Indicates the number of devices in the various NAMUR NE 107 categories
NAMUR NE 107 symbols	<ul> <li>Status OK</li> <li>Status OK</li> <li>Si Failure - device has failed</li> <li>Check Function - device is being checked, e.g. in simulation mode</li> <li>Cut of Specification - the current value output by the device is beyond its configured limits</li> <li>Cut and the device requires maintenance, e.g. cleaning in the case of build-up on a Liquiphant limit switch</li> <li>Not OK, Unknown - the device has a diagnostic message which cannot be categorized to NAMUR NE 107 as the required information is not in the library</li> </ul>
	Shows the connected devices in a list view Shows the connected devices in a table view
Live list matrix	<ul> <li>Indicates the type and PROFIBUS address of the slave</li> <li>Mxxx: master with PROFIBUS address xxx</li> <li>Syyy: slave with PROFIBUS address yyy</li> <li>Colour code and symbols: as in overview and NAMUR NE 107 symbols</li> </ul>
	If a supported HART Remote IO is connected to an address, the subordinate live list of devices behind the Remote IO can be opened via the button <b>Open Sub Live List</b> . Currently the following Remote IOs are supported • Siemens ET200M • Siemens ET200ISP • Turck excom • Siemens DP/PA Link • ABB S900 • Stahl IS1/IS1+

#### List View

- Click the button List View to display a list of connected devices

   Click on a device to show its details
   Click the button Table View to return to the view above

Fieldgate	SFG5	500	Asset Monitor				Er	ndre	ess+H	au	ser 🖪	H
Start Network Asse	ts Events	Settings Inf	formation						12. Jan 20	00 17:	45:38 📕 🚟	Login
Status Asset Library	Asset S	Status										
				Devices: 4	2	<b>3</b> 0	V	1	<u>A</u> 1	۵ (	0 🕛 0	
	Slave	NE107	🛣 Tag	~	Device	Туре	*	Vend	or	*	Ident 🛰	
	S014				DP/PA-L	ink (IM15)	7)	SIEME	ENS AG		0x8052	* 
	S071	Å	DELTABARS_71		Deltaba	r S	2)	Endre	ss+Hause	r	0x001E	
	S120	V			IS1_2			Stahl	21		0x049A	
												-
	Details	of Slave: [S	5071] Deltabar S "DEI	TABARS_71								
	4	Not in cyclic o 0A 05 00 FF 15	data exchange, waiting fo 42 14 FE 00 01 00 00 00 80 0	r configuration; Device S 0 00 00 00 00 00 40 00 00 0	tatus: not	OK						
		Not in cyclic o	lata exchange, waiting fo	r configuration								

Element	Meaning
Overview table	Indicates the number of devices in the various NAMUR NE 107 categories
≣	Shows the connected devices in a list view
	Shows the connected devices in a table view
Live list	
Slave	Slave ID in PROFIBUS live list (Saaa, aaa = PROFIBUS address)
NE107	<ul> <li>Status OK</li> <li>Status OK</li> <li>Failure - device has failed</li> <li>V: Check Function - device is being checked, e.g. in simulation mode</li> <li>A: Out of Specification - the current value output by the device is beyond its configured limits</li> <li>S: Maintenance Required - the device requires maintenance, e.g. cleaning in the case of build-up on a Liquiphant limit switch</li> <li>Not OK, Unknown - the device has a diagnostic message which cannot be categorized to NAMUR NE 107 as the required information is not in the library</li> </ul>
Tag	Tag No. of the slave
Device Type	Manufacturer's device type identification
Vendor	Manufacturer's serial number of the slave
Ident	PROFIBUS identification code for slave device type
Details of Slave	
Device Status	Detailed diagnostic message of device according to NAMUR NE107

### Open Sub Live List

Click the button **Open Sub Live List**, to view the subordinate live list.
 List View.

Fieldgate	SFG500	Asset Monitor					Endre	ess+H	lau	ser	E	J
Start Network Asset	s Events Settings I Asset Status	nformation						12. Jan 20	000 17	:47:50		.ogin
Asset Library	PROFIBUS >> S030-HAR	r 🗨										
			Devices: 1		1	🕴 0	<b>V</b> 0	<u> </u>	٢	0	0	
	Channel 🔨 NE1 Ch 4.7	07 🔽 Tag TANK65.0		T D	Device T MR25x	уре	<mark>∿ Vend</mark> œ Endres	r s+Hauser	~	<b>Ident</b> 0x1118	<b>*</b>	•
	Details of Channe Device Stat Additional De	I: [Ch 4.7] FMR25x "TA us: OK vice Status: 00 00 00 00 00 00	NK65.0"	_	_	_	_	_		_		•

Element	Meaning
Overview table	Indicates the number of devices in the various NAMUR NE 107 categories
•	Back to overview: Returns to the superordinate list resp. table view
E	Shows the connected devices in a list view
	Grid view: Shows the connected devices in a grid table
	(only Siemens DP/PA Link)
	Shows the connected devices as module
Live List	
Slave	RIO address of the relevant device connected
NAMUR NE 107 Symbole	<ul> <li>Status OK</li> <li>Status OK</li> <li>Failure - device has failed</li> <li>Check Function - device is being checked, e.g. in simulation mode</li> <li>Out of Specification - the current value output by the device is beyond its configured limits</li> <li>Maintenance Required - the device requires maintenance, e.g. cleaning in the case of build-up on a Liquiphant limit switch</li> <li>Not OK, Unknown - the device has a diagnostic message which cannot be categorized to NAMUR NE 107 as the required information is not in the library</li> </ul>
Tag	Tag No. of the slave
Device Type	Manufacturer's device type identification
Vendor	Manufacturer's serial number of the slave
Ident	PROFIBUS identification code for slave device type
Details of Slave	•
Device Status	Detailed diagnostic message of device according to NAMUR NE107

### **Open Sub Live List**

#### 1. Click the button **Module**, to view the subordinate live list as module.

- Module View.

Fieldgate	SFG500	Asset Mo	onitor			En	dress+ 19. Mar	Haus 2014 09:47:	er 🖾
Status PROFIBUS Library	Asset Statu	s							
HART Library	PROFIBUS >> SOOG	-HART 🕘		Devices: 4	<b>2</b> 1	🕄 3 「	70 🔥 0	🔷 0	10
	[S006] ET200 M								
	Slot 1 empty	Slot 2 6ES7 153-2BA02-0XB0	Slot 3 empty	Slot 4 6557 331-77F91-0A50 Ch 4.0 Ch 4.1 Ch 4.2 Ch 4.3 Ch 4.4 Ch 4.5 Ch 4.6 Ch 4.7	Slot 5 8E57 332-8TF01-0AB0 Ch 5.0 Ch 5.1 Ch 5.2 Ch 5.3 Ch 5.4 Ch 5.5 Ch 5.6 Ch 5.7	Slot 6 empty	Sio	: 7 ty	Slot 8 empty
	Slot 9 empty	Slot 10 empty	Slot 11 empty	Slot 12 empty	Slot 13 empty	Slot 14 empty	Slot	15 hty	Slot 16 empty

This view shows the usually modular composition of a Remote IO. The supported HART modules are depicted in the corresponding slots. A module with connected HART device is color marked in the relevant channel.

The following color states are possible:

- Green: device is in cyclic data exchange; status OK.
- Yellow: device is in cyclic data exchange; diagnostic message pending.
- Orange: device could not join cyclic data exchange.
- White: no device connected.

Additionally the device condition per channel is shown as NAMUR NE 107 symbol:

NAMUR NE 107 Symbole	🔹 🗹 Status OK
	Failure - device has failed
	• 💎: Check Function - device is being checked, e.g. in simulation mode
	<ul> <li>A: Out of Specification - the current value output by the device is beyond its configured limits</li> </ul>
	<ul> <li>Section 2 - Section 2 - Secti</li></ul>
	<ul> <li>1: Not OK, Unknown - the device has a diagnostic message which cannot be categorized to NAMUR NE 107 as the required information is not in the library</li> </ul>

Siemens DP/PA Link: Click the button **Grid View**, to changeover to grid table.
 Grid View.

Fieldgate	SFG50	O Ass	et Monito	r				Endress	+Hause	er 🖽
Start Network Assets	Events Setti	ings Informa	tion					3.	Jan 2000 00:04:1	7 🔜 🔠 Login
Status PROFIBUS Library	Asset Stat	tus )14-PROFIBUS-PA	•							
HART LIDIARY	≣			De	evices: 14	5	<b>3</b> 9	V0 🔺	0 🗇 0	10
	#000	#001	#002	#003	#004	#005	#006	#007	#008	#009
	#010	#011	#012	#013	#014	#015	#016	#017	#018	#019
	#020	#021	#022	#023	#024	#025	#026	#027	#028	#029
	#030	S031 🜌	S032 😳	S033 😳	S034 🕄	#035	#036	#037	S038 🜌	S039 😳
	#040	S041 🗹	S042 🔽	S043 😳	S044 😳	S045 😳	#046	#047	#048	#049
	#050	#051	#052	#053	#054	#055	#056	#057	#058	S059 🜌
	#060	#061	#062	#063	#064	#065	#066	#067	#068	#069
	#070	#071	#072	#073	#074	#075	#076	#077	#078	#079
	#080	#081	S082 😳	#083	#084	#085	#086	#087	#088	#089
	#090	#091	#092	#093	#094	#095	#096	#097	#098	#099
	#100	#101	#102	#103	#104	#105	#106	#107	#108	#109
	#110	#111	#112	#113	#114	#115	#116	#117	#118	#119
	#120	#121	S122 😳	#123	#124	#125	#126			

The table comprises all devices behind the Siemens DP/PA Link chosen. Depening on the link conguration it is possible it shows up itself. The details of the individual parameters are to be found in the table for the Asset Status Grid.

Additionally the device condition per slave is shown as NAMUR NE 107 symbol:

NAMUR NE 107 Symbole	🔹 🗹 Status OK
	🔹 😢: Failure - device has failed
	• 😗: Check Function - device is being checked, e.g. in simulation mode
	<ul> <li>A: Out of Specification - the current value output by the device is beyond its configured limits</li> </ul>
	<ul> <li>State and the device requires maintenance, e.g. cleaning in the case of build-up on a Liquiphant limit switch</li> </ul>
	• (): Not OK, Unknown - the device has a diagnostic message which cannot be categorized to NAMUR NE 107 as the required information is not in the library

### 4.2.2 Asset Library

Asset Library displays a list of the devices that are stored in the library and which have NAMUR NE 107 capabilities.

- 1. Open the Asset menu by clicking on the **Asset** tab
- 2. Click Asset Library
  - The content of the relevant library will be displayed as a list.

Fieldgat	e SFG500 Asset Mo	onitor	Endress-	Hauser 🛽	41						
Start Network As	sets Events Settings Information	12. Jan 2000 17:59:12 💻 읽을 Logi									
itatus	Asset Library										
sset Library	PROFIBUS - Vendor Device	Туре	6	18688	Ŵ						
	Version:1.05.00-00145 customized	Version:1.05.00-00145 customized									
	Vendor	🔹 Device Type	🔨 Ident	🔨 Version 🛛							
	Stahl	IS1_2	0x049A	00.00.09	<u>^</u>						
	ABB	S900 (mode 1)	0x04D2	00.00.09							
	PEPPERL+FUCHS GmbH	HD2-GTR-4PA	0x09A8	00.00.09							
	SIEMENS AG	ET 200M (IM153-2) DPV1	0x801E	00.00.09							
	SIEMENS AG	ET 200iSP (IM152-1) DPV1	0x8110	00.00.09							
	WAGO Kontakttechnik GmbH	WAGO 750-333 PRO	0xB754	00.00.09							
	Hans Turck GmbH & Co.KG	excom (Modus 1)	0xFF9F	00.00.09							
	SAMSON AG	Positioner 3785 Profile 3	0x0688	01.00.00							
	Metso Automation	ND9000P2	0x06CA	01.00.00							
	SAMSON AG	Positioner 373x-4	0x071D	01.00.00							
	Endress+Hauser	Deltabar S, 2nd Generation	0x1504	01.00.00							
	Endress+Hauser	Cerabar M	0x151C	01.00.00							
	Endress+Hauser	Micropilot M	0x1522	01.00.00							
	Endress+Hauser	ITEMP PA TMT 184	0x1523	01.00.00							
	Endress+Hauser	PROMAG 50 PA	0x1525	01.00.00							
	Endress+Hauser	PROMAG 53/55 DP	0x1526	01.00.00							
	Endress+Hauser	PROMAG 53/55 PA	0x1527	01.00.00							

- 3. Use the drop-down menu to select either the PROFIBUS or the HART library view.
- 4. The various elements have the following significance:

Element	Meaning
_	Update Asset Library:
\$	Uploads a library file to the Fieldgate SFG500
	Export Asset Library:
ا الله الله الله الله الله الله الله ال	Exports a library file from the Fieldgate SFG500
	Import GSD:
GSD	Imports a GSD file with additional NAMUR NE107 information
	Filter Asset Library:
Y	Filters asset descriptions to vendor or device type
-	Edit Asset Description:
Ø	Allows an existing asset description to be edited
	Print Asset Descriptions:
-	Prints individual asset descriptions
Vendor	Indicates the manufacturer of the device
Device Type	Manufacturer's device type identification
Ident	PROFIBUS identification code for slave device type
Version	Version of the asset description

### **Update Asset Library**

The asset library comprises a list of devices that can present diagnosis information in accordance with NAMUR NE 107. Every new version of Fieldgate Asset Monitor automatically contains the latest library. For projects that contain third-party devices, e.g. valves, Endress+Hauser provides a library file which can be uploaded to Fieldgate SFG500 using the Web server as described in the following. The same procedure is used for uploading a library file that has been previously exported from another Fieldgate SFG500.

1. Click on the **Update Asset Library** icon.

Fieldga	te SFG500 Asset Monitor	Endress+Hauser 🖾
Start Network As	sets Events Settings Information	20. Nov 2014 18:18:22 📁 🟭 Logout
Status Asset Library	Asset Library PROFIBUS * Version: 1.04.00-00126 Durchsuchen_ Keine Datei ausgewählt. Update Close	1 \$ \$ \$

- Click on Browse ... and navigate to the folder in which the library file is to be found
   Select the file and click on Open.
- 3. Click on Update.
  - The selected file is uploaded to Fieldgate SFG500.

### NOTE!

NOTICE

• After the file has been uploaded, the Web server must be restarted.

### **Export Asset Library**

In order to copy edited library contents from one Fieldgate SFG500 to another, a library can be exported.

- 1. Click on the Export Asset Library icon.
  - Select the folder in which the file is to be save.
- 2. Click on OK.
  - The library is saved.

### Import GSD

In order to add new PROFIBUS devices to a library, GSD files can be uploaded by using the "Import GSD" function. The information is transferred from the GSD file to the library.

- 1. Click on the **Import GSD** icon.
- Click on Browse ... and navigate to the folder in which the library file is to be found.
   Select the file and click on Open.

#### 3. Click on Start Import.

- The selected GSD file is uploaded to Fieldgate SFG500.

#### NOTE!

- NOTICE
- After the file has been uploaded, the Web server must be restarted.

### **Filter Asset Library**

Asset descriptions can be filtered to vendor or device type.

1. Click on Vendor or Device type.

Fieldgate	e SFG500 Asset	Endress+Hauser 🖾					
Start Network Ass	ets Events Settings Information	1	18. N	lar 2015 13:44:27 🧮 👪 Login			
Status	Asset Library						
Asset Library	PROFIBUS - Vendor Dev	ісе Туре 🌱		13933			
	Version:1.05.00-00145						
	Vendor	🔽 Device Type	🔽 Ident	🔨 Version 📉			
	Stahl	IS1_2	0x049A	00.00.09			
	ABB	S900 (mode 1)	0x04D2	00.00.09			
	PEPPERL+FUCHS GmbH	HD2-GTR-4PA	0x09A8	00.00.09			
	SIEMENS AG	ET 200M (IM153-2) DPV1	0x801E	00.00.09			

- 2. Type the vendor or device type into the description field to be filtered and click on **Filter Asset Library**.
  - Filtered list will appear.

Fieldgate S	SFG500	Asset Monit	tor	En	dress	+Hauser	E
Start Network Assets	Events Settings	Information			18. <b>I</b>	lar 2015 13:45:00 📕	Billi Login
Status Asset Library	Asset Library						
Asset Library	PROFIBUS -	Vendor Device Type	Stahl 💙			/ & e	\$ \$
	Version:1.05.00-00145	5					
	Vendor	×	Device Type	~	Ident	🔨 Version	<b>*</b>
	Stahl		IS1_2		0x049A	00.00.09	

#### NOTE!



• To reset the filter, click **Filter Asset Library**.

#### **Edit Asset Descriptions**

Existing asset descriptions can be changed using the editor function.

- Select the file to be edited from the list and click on the Edit Asset Description icon.
   The editor opens and displays the contents of the selected asset description.
- 2. Make the desired changes.
- 3. Click on Update.
  - The changes are saved.

#### NOTE!

NOTICE

• After the asset descriptions have been edited, the Web server must be restarted.

### **Print Asset Descriptions**

Prints existing asset descriptions.

- 1. From the list, choose the file to be printed and click **Print Asset Descriptions**.
  - A new window opens and shows the content of the selected asset description.
  - The print dialog opens.
- 2. Choose a printer.
- 3. Click Print.
  - The selected asset description will be printed.Close the window after printing.

#### 4.3 **Events**

#### 4.3.1 **Event Logging**

Event logging keeps a record of all system and device events generated on the bus.

Open the Event menu by clicking on the **Event** tab
 The **Event Logging** window opens

Fieldgate	e SFG500 Ass	et Monitor		Endress	s+Hau	iser (	E
Start Network Asset	ts Events Settings Informatio	n		5	i. Jun 2015 10	1:23:52 💻	Logout
Event Logging	Event Logging	10					
	Event Logging: Stopped Refr	esh 🖹			Start	Stop	Clear
	Timestamp	Category	🔨 Message	🔺 Addr 🛛 🛰	Ident 🍡	NE107	7 🔽
	12. Mrz 2015 09:16:40	Network	Device disappeared	M001			~
	12. Mrz 2015 09:16:25	Asset	Diagnosis changed	S120	0x049A	V	
	12. Mrz 2015 09:16:24	Asset	Diagnosis changed	S071	0x1542	A -	
	12. Mrz 2015 09:16:21	Asset	Diagnosis changed	S030	0x801E		
	12. Mrz 2015 09:16:21	Asset	Diagnosis changed	S014	0x8052		
	12. Mrz 2015 09:16:20	Asset	Diagnosis changed	S014 -> S039	0x1551	0	
	12. Mrz 2015 09:16:20	Asset	Diagnosis changed	S014 -> S038	0x1551		
	12. Mrz 2015 09:16:20	Asset	Diagnosis changed	S014 -> S035	0x1551		
	12. Mrz 2015 09:16:20	Asset	Diagnosis changed	S014 -> S034	0x1551	8	
	12. Mrz 2015 09:16:20	Asset	Diagnosis changed	S014 -> S033	0x1551	8	
	12. Mrz 2015 09:16:20	Asset	Diagnosis changed	S014 -> S031	0x1551	8	
	12. Mrz 2015 09:16:20	Asset	Diagnosis changed	S014 -> S004	0x8131		~
	12. Mrz 2015 09:16:20	Network	Device appeared	S014 -> S039			•
	Event Details: [12. Mai	2015 09:16:	20] S014 -> S039 iTEMP TMT84 3.02				
	Not in cyclic data 0A 05 00 FF 15 51 01 Not in cyclic data details	exchange, waitii E FE 00 00 20 20 0 exchange, waitii	ng for configuration; Device Status: not OK 0 80 00 00 00 02 00 00 ng for configuration DP/PA-Link				

Element	Meaning	
Start button	Starts the event logging	
Stop button	Stops the event logging	
Clear button	Deletes all logging events	
Refresh button Updates the web page with the latest logged events		
X	<ul> <li>The events logged can be exported into an Excel file.</li> <li>NOTE! <ul> <li>Depending on the number of events, the export may take some time.</li> <li>The exported Excel file format is supported from Excel 2007 (Windows) and Excel 2008 (Macintosh) by default. For older Excel versions (Microsoft Office 2003, Microsoft Office XP, Microsoft Office 2000) Microsoft offers a "compatibility pack" for download.</li> </ul> </li> </ul>	

### 4.4 Information

The Information tab displays the information stored on the Electronic nameplate of Fieldgate SFG500 and Fieldgate Module SFM500.

- 1. Open the Information by clicking on the Information tab
  - The Device Information window appears
  - Credits opens a list of all software components used in Asset Monitor

Fieldgate	SFG500 Asset Monitor	Endress+Hauser 🗔
Start Network Assets	Events Settings Information	19. Mar 2014 09:55:01 💻 🖽 Login
Device Identification	Device Identification	
	Fieldgate SFG500	
	Device Tag:         SFG500_Cl change           Order Code:         71116672           Serial Number:         EB0001240A0           Software Version:         01.02.00           ENP Version:         2.02.00	
	Fieldgate Module SFM500	
	Operation Mode: Asset Monitor Order Code: SFM500-A1 Senial Number: EB0001240A0 Software Version: 01.00.06 ENP Version: 2.02.00	
	© Endress-Hauser   <u>Credits</u>	

## 5 Trouble-Shooting

	LED indication	Cause/Remedy
1	Power LED does not light	<ul> <li>No power</li> <li>Check that power line is correctly wired</li> <li>Check that the supply voltage corresponds to that on the nameplate</li> <li>Check that the power is switched on</li> <li>If the supply voltage was too high, the internal fuse has blown <ul> <li>Return the Fieldgate SFG500 to Endress+Hauser for repair</li> </ul> </li> </ul>
2	Failure LED lights or flashes	<ul> <li>CPU has severe problem or device cannot boot</li> <li>Switch power off, wait 30 s, then switch on again</li> <li>If the failure LED lights again <ul> <li>Return the Fieldgate SFG500 to Endress+Hauser for repair</li> </ul> </li> </ul>
3	PB Err LED lights	<ul> <li>PROFIBUS network has malfunctioned</li> <li>Check that the bus is terminated at both ends only</li> <li>Check that all master bus parameters are identical</li> <li>Check that the bus has been correctly wired</li> </ul>
4	RS485 LED is off, although the interface is wired up	Wiring or link error • Check wiring • Check that the Modbus master is switched on
5	LAN1 or LAN2 LED is off, although the interface is wired up	<ul> <li>Wiring or link error</li> <li>Check wiring</li> <li>Check that the communication partner is switched on</li> <li>Check that the IP address has been set properly: <ul> <li>LAN 1: Set as fixed address in network domain</li> <li>LAN 2: Set to receive DHCP address</li> </ul> </li> </ul>

## 5.1 Faults indicated by Fieldgate SFG500 LEDs

## 5.2 **PROFIBUS** communication faults

	Problem	Cause/Remedy
1	Fieldgate SFG500 cannot connect to PROFIBUS DP segment	<ul> <li>Wiring or link error</li> <li>Check that PROFIBUS DP segment is corrected terminated (at both ends)</li> <li>Check wiring</li> <li>Check that the Station Address is not being used by another participant</li> <li>Check that all masters are operating with the same bus parameters <ul> <li>If necessary, adjust the token rotation time</li> </ul> </li> </ul>
2	A device does not appear in the live list	<ul> <li>Communication error</li> <li>Another device has the same address</li> <li>The device is not powered up</li> <li>Device does not support autosense of baudrate <ul> <li>Set correct baudrate</li> </ul> </li> <li>The device is connected to a link that is not transparent <ul> <li>This is normal behaviour</li> </ul> </li> </ul>

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