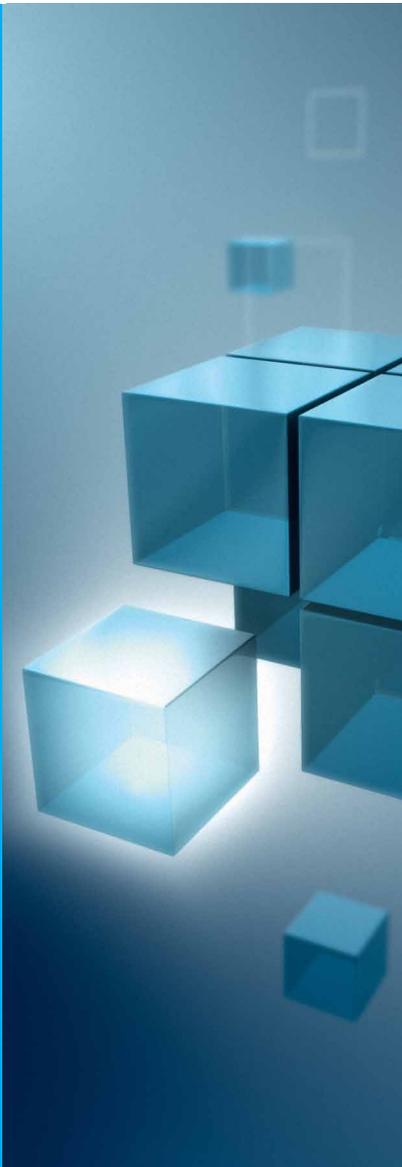


Fieldgate SFG500

Intelligent Ethernet/PROFIBUS gateway

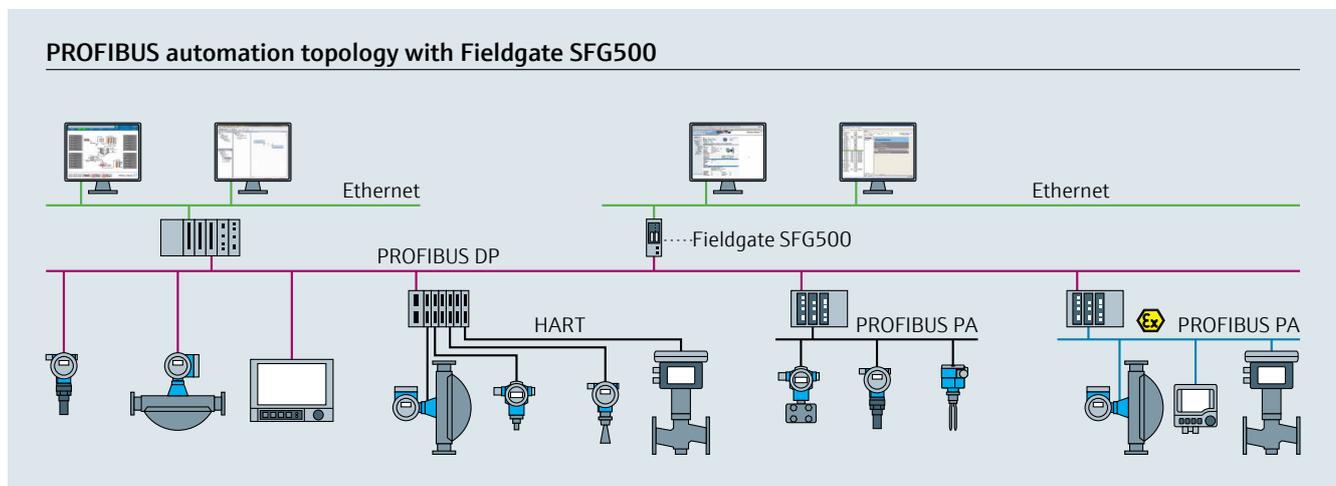


Fieldgate SFG500 at a glance

Parallel access to PROFIBUS networks and monitoring of PROFIBUS device status

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 the use of an optional memory card, the Fieldgate Module SFM500. Without a memory card, Fieldgate SFG500 operates as a plant access point.

System architecture with bypass access to PROFIBUS



- Combined advantages of PROFIBUS Listener and Master Class 2
- Auto detection of adequate PROFIBUS settings, no need for configuration
- Serialization of Master Class 2 requests allows multiple clients at time
- Second LAN port provides service access independent from system network
- Optional function modules for advanced features and operating modes

About Fieldgate SFG500

One hardware, multiple options Fieldgate SFG500 is designed to serve a variety of applications. The operating mode of a Fieldgate SFG500 is determined by an optional Fieldgate Module SFM500 which can be plugged into the memory card slot of the Fieldgate SFG500.



Fieldgate Module SFM500



Fieldgate SFG500

Fieldgate SFG500 “Access Point”

Basic mode

Fieldgate SFG500 Access Point Endress+Hauser

24. Jun 2013 07:12:20

PROFIBUS Live List

3 Master (Moox): 1 OK 0 Diag 0 Fail 2 Off 0 SFG
13 Slaves (Soox): 9 OK 2 Diag 1 Fail 1 Off 111 Free

#000	M001	M002	#003	M004	#005	#006	#007	S008	#009
#010	#011	#012	#013	#014	#015	#016	#017	#018	#019
#020	S021	S022	#023	#024	#025	#026	#027	#028	#029
S030	#031	#032	#033	#034	S035	S036	S037	#038	#039
#040	#041	#042	#043	#044	#045	#046	#047	#048	#049
#050	#051	#052	#053	#054	S065	S066	#067	S068	S069
#060	#061	#062	#063	#064	S075	#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
#120	#121	#122	#123	#124	#125	#126			

The PROFIBUS Live List shows all master and slave devices that can be seen on the bus.

PROFIBUS Live List with indication of communication status

Fieldgate SFG500 Access Point Endress+Hauser

24. Jun 2013 07:15:18

PROFIBUS Monitor

Start time: 24. Jun 2013 07:00:06 [Restart]

Slave	IDent	Status	# Inits	# Diag	Last Diagnostic Time
S008	0x0000	OK	0	0	----
S021	0x0000	OFF	0	0	----
S022	0x152C	OK	2	0	24. Jun 2013 07:10:44
S030	0x071D	OK	1	0	24. Jun 2013 07:10:44
S035	0x0000	OK	0	0	----
S037	0x1503	FAIL	265	0	24. Jun 2013 07:15:40
S057	0x1523	OK	15	0	24. Jun 2013 07:10:10
S064	0x1522	OK	3	0	24. Jun 2013 07:10:45
S065	0x152C	OK	3	0	24. Jun 2013 07:10:37
S066	0x152D	DIAG	1	1	24. Jun 2013 07:10:38
S068	0x1522	OK	1	0	24. Jun 2013 07:10:44
S069	0x152D	OK	1	0	24. Jun 2013 07:10:44
S075	0x06CA	DIAG	17	2	24. Jun 2013 07:10:46

Details of Slave:
Parameter String: -
Config String: -
Last Diagnostic: ----

PROFIBUS Monitor counts reconfigurations and diagnostic events

Fieldgate SFG500 Access Point Endress+Hauser

24. Jun 2013 07:24:12

PROFIBUS Settings

Configuration Mode
 Auto Mode
 Manual Mode

Baudrate: 1500 kBits

Address Parameters
 Station Address: 5
 Highest Station Address: 126

Timing Parameters
 Slot Time: 3000 μs Target Rotation Time: 11894 μs
 Min. Station Delay Time: 11 μs • 7.9 ms
 Max. Station Delay Time: 150 μs Gap Update Factor: 10
 Quiet Time: 0 μs Max. Retry Limit: 1
 Set Time: 1 μs

[Apply] detecting baudrate

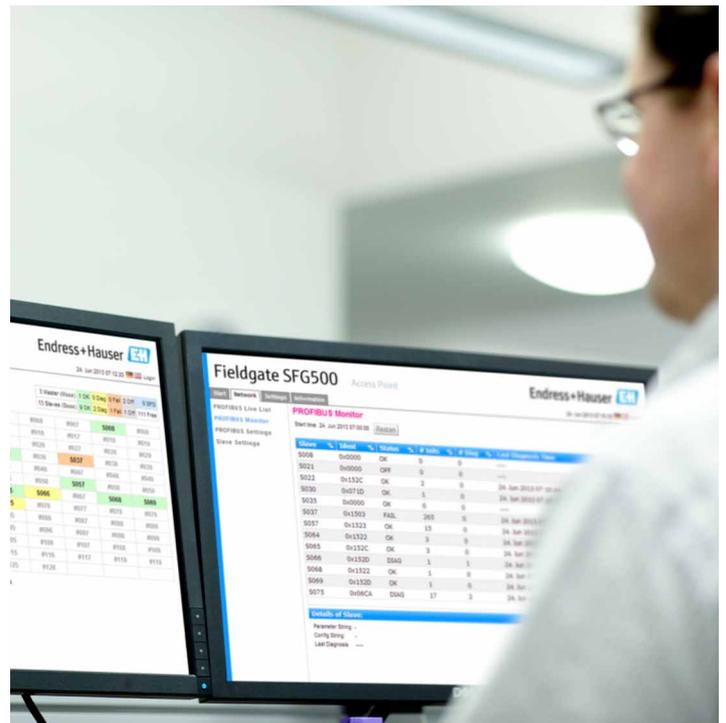
PROFIBUS Settings may be autodetected or user-defined

Fieldgate SFG500 “Access Point”

Fieldgate SFG500 without Fieldgate Module SFM500 runs its basic operating mode “Access Point”. In this mode the Fieldgate SFG500 utilizes its means as a PROFIBUS Listener to automatically detect adequate bus settings as required to startup as a Master Class 2. This ensures a hassle free commissioning without any need for configuration.

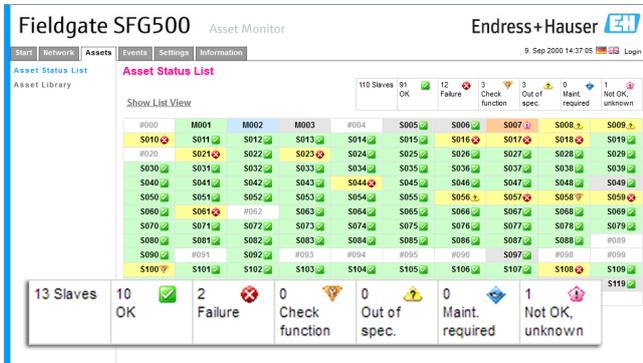
The embedded Web server of the Fieldgate SFG500 provides a brief overview of master and slave devices which can be detected on a connected PROFIBUS network. All information displayed is kept up to date by means of a PROFIBUS Listener to the bus traffic, and can be forwarded on request to any client software based on FDT/DTM technology.

Utilizing this proactive support of the Fieldgate SFG500 can help to improve Plant Asset Management applications, e.g. with FieldCare.



Fieldgate SFG500 “Asset Monitor”

Advanced mode

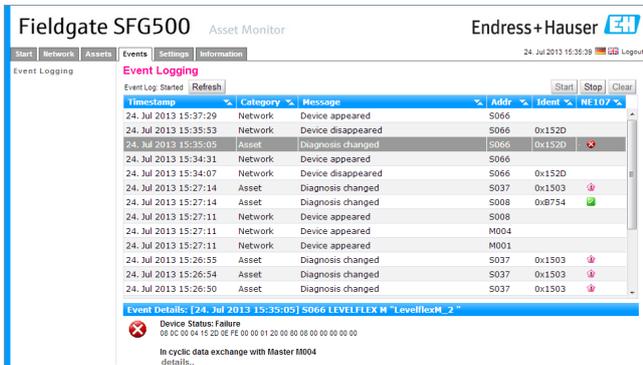


Asset Status List with indication of NE 107 status

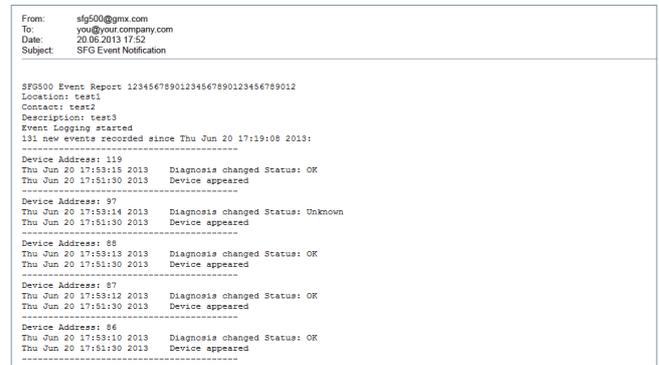
Fieldgate SFG500 “Asset Monitor”

Any Fieldgate SFG500 may be upgraded with a Fieldgate Module SFM500-A1 to run the advanced operating mode “Asset Monitor”.

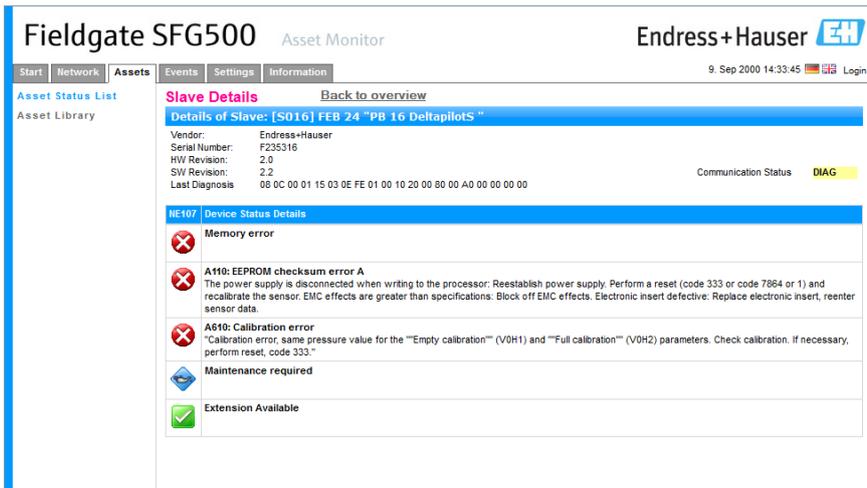
In this mode the Fieldgate SFG500 still serves as an access point for client software based on FDT/DTM technology. In addition it provides outstanding features like monitoring of device health status according to NAMUR NE 107, as well as logging and alarming on diagnostic events.



Event Logging for device diagnostic messages and other changes versus a defined baseline



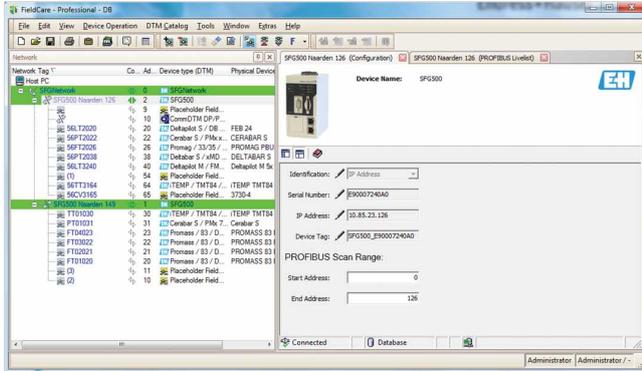
Event e-mail notification listing all events of a certain time period



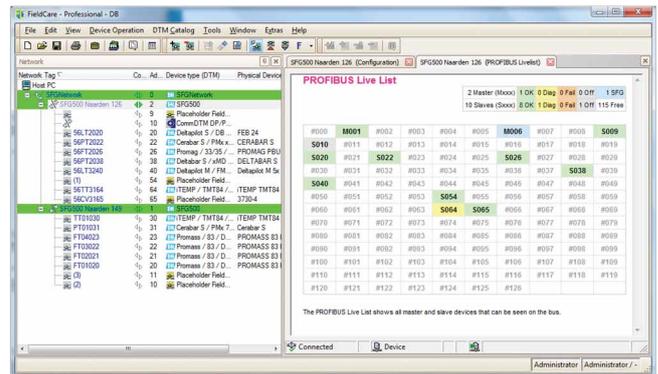
Slave Details showing device status with cause and remedy information

Integration with FieldCare

For basic and advanced mode



- SFG Network DTM scans for all Fieldgates within a local area network
- SFG500 CommDTMs manage the communication path per Fieldgate
- SFG500 Web server provides additional functions to FieldCare



Technical data at a glance

Power supply

- Supply voltage: 18 to 36 VDC
- Current: 0.35 to 0.20 A
- Power 7.2 W
- Battery (for memory) 3V lithium manganese dioxide battery type CR2450

Housing

- Body material: Aluminium alloy (EN AW 5754) with transparent passivated surface finish (conducting)
- Front panel: ABS

Overall dimensions [W x H x D]

142 x 70 x 114 mm / 5.6 x 2.8 x 4.5 inch

Weight

Approx. 0.7 kg

Degree of protection

IP 20; NEMA Type 1 (General Purpose)

Temperature ranges

Ambient temperature range

- General: 0°C to +60°C / +32°F to 140°F
- Storage temperature range
- With lithium battery: -20°C to +60°C / -4°F to +140°F
- Without lithium battery: -25°C to +70°C / -13°F to +158°F

Relative humidity

Storage and operation: 10% to 90%, non-condensing

Certificates and approvals

- CE Mark CE to EN/IEC 61131-2: 2007
- Safety approval TÜV NRTL to EN/IEC/UL/CAN/CSA C22.2-No 61010-1



Supplementary documentation

- Plant Asset Management
Field of Activities Brochure – FA00024S/04/en
- Fieldgate SFG500
Technical Information – TI00029S/04/en
- Fieldgate SFG500, Operation as Access Point
Operating Instructions – BA00071S/04/en
- Fieldgate SFG500/SFM500, Operation as Asset Monitor
Operating Instructions – BA00072S/04/en

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