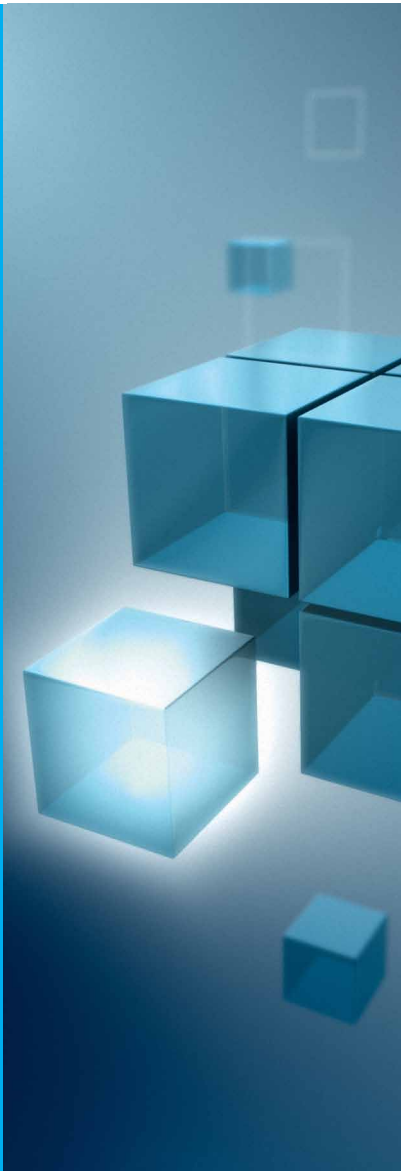


Fieldgate SFG500

Intelligent Ethernet/PROFIBUS gateway

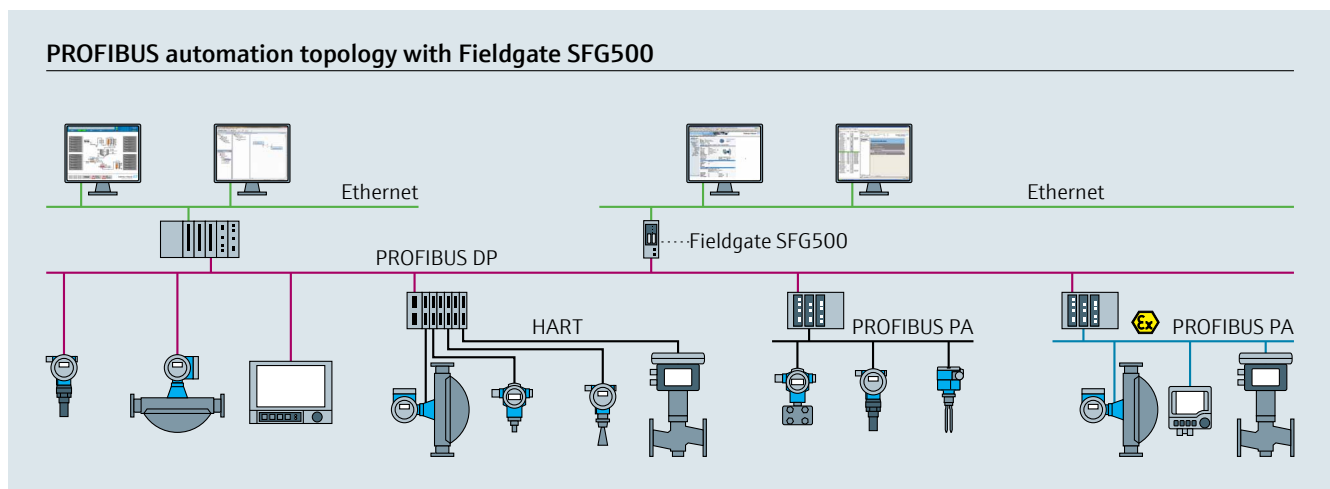


Fieldgate SFG500 at a glance

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

The screenshot shows the 'PROFIBUS Live List' interface. At the top, it displays '3 Master (Moox): 1 OK, 0 Diag, 0 Fail, 2 Off, 0 SFG' and '13 Slaves (Soox): 9 OK, 2 Diag, 1 Fail, 1 Off, 11 Free'. Below this is a table with columns for device ID, status, and communication status. The table lists devices from #000 to #119, with some devices highlighted in green (OK) and others in orange (Diag/Fail/Off).

ID	Status	Comm. Status
#000	OK	OK
#001	OK	OK
#002	OK	OK
#003	OK	OK
#004	OK	OK
#005	OK	OK
#006	OK	OK
#007	OK	OK
#008	OK	OK
#009	OK	OK
#010	OK	OK
#011	OK	OK
#012	OK	OK
#013	OK	OK
#014	OK	OK
#015	OK	OK
#016	OK	OK
#017	OK	OK
#018	OK	OK
#019	OK	OK
#020	OK	OK
#021	OK	OK
#022	OK	OK
#023	OK	OK
#024	OK	OK
#025	OK	OK
#026	OK	OK
#027	OK	OK
#028	OK	OK
#029	OK	OK
#030	OK	OK
#031	OK	OK
#032	OK	OK
#033	OK	OK
#034	OK	OK
#035	OK	OK
#036	OK	OK
#037	OK	OK
#038	OK	OK
#039	OK	OK
#040	OK	OK
#041	OK	OK
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#049	OK	OK
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#067	OK	OK
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#069	OK	OK
#070	OK	OK
#071	OK	OK
#072	OK	OK
#073	OK	OK
#074	OK	OK
#075	OK	OK
#076	OK	OK
#077	OK	OK
#078	OK	OK
#079	OK	OK
#080	OK	OK
#081	OK	OK
#082	OK	OK
#083	OK	OK
#084	OK	OK
#085	OK	OK
#086	OK	OK
#087	OK	OK
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#092	OK	OK
#093	OK	OK
#094	OK	OK
#095	OK	OK
#096	OK	OK
#097	OK	OK
#098	OK	OK
#099	OK	OK
#100	OK	OK
#101	OK	OK
#102	OK	OK
#103	OK	OK
#104	OK	OK
#105	OK	OK
#106	OK	OK
#107	OK	OK
#108	OK	OK
#109	OK	OK
#110	OK	OK
#111	OK	OK
#112	OK	OK
#113	OK	OK
#114	OK	OK
#115	OK	OK
#116	OK	OK
#117	OK	OK
#118	OK	OK
#119	OK	OK

PROFIBUS Live List with indication of communication status

The screenshot shows the 'PROFIBUS Monitor' interface. It displays a table with columns for Slave ID, Status, # Inits, # Diag, and Last Diagnosis Time. The table lists slaves from S008 to S075, with various status indicators (OK, OFF, FAIL, DIAG) and counts of initializations and diagnostics.

Slave	ID	Status	# Inits	# Diag	Last Diagnosis 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 07:10:18
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

PROFIBUS Monitor counts reconfigurations and diagnostic events

The screenshot shows the 'PROFIBUS Settings' interface. It includes sections for 'Configuration Mode' (Auto Mode selected), 'Baudrate' (1500 kbps), 'Address Parameters' (Station Address 5, Highest Station Address 120), and 'Timing Parameters' (Slot Time 300, Min. Station Delay Time 11, Max. Station Delay Time 150, Quiet Time 0, Set Time 1, Target Rotation Time 11894, Gap Update Factor 10, Max. Retry Limit 1). There is an 'Apply' button and a note 'detecting baudrate'.

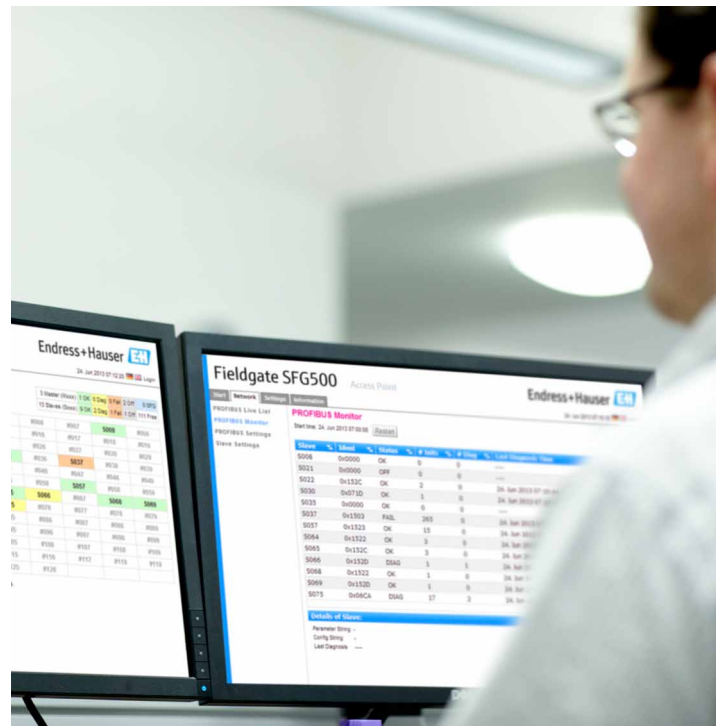
PROFIBUS Settings may be autodetected or user-defined

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.

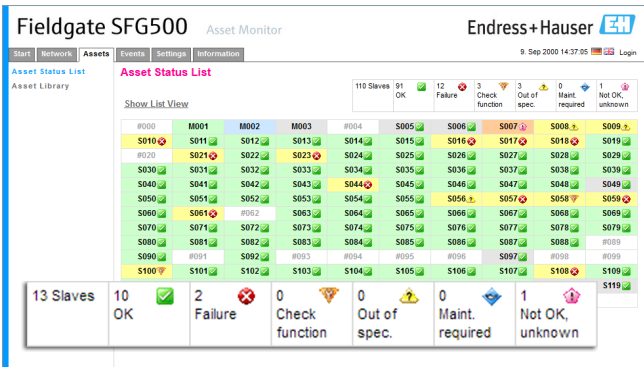
The embedded Web server of the Fieldgate SFG500 provides a brief overview of master and slave devices which can be detected on a connected PROFIBUS network. All information displayed is kept up to date by means of a PROFIBUS Listener to the bus traffic, and can be forwarded on request to any client software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

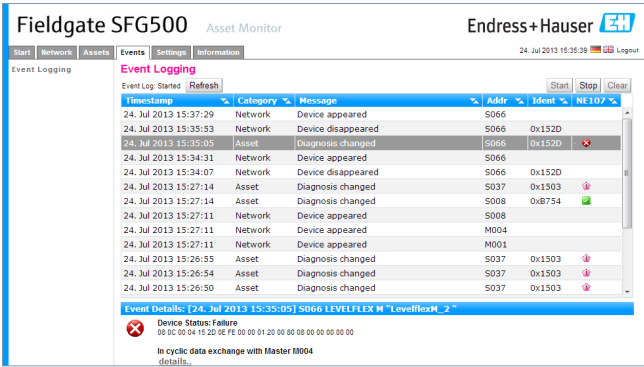


Fieldgate SFG500 “Asset Monitor”

Advanced mode



Asset Status List with indication of NE 107 status

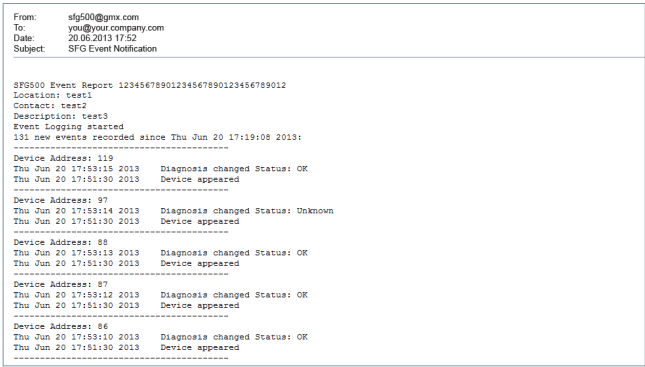


Event Logging for device diagnostic messages and other changes versus a defined baseline

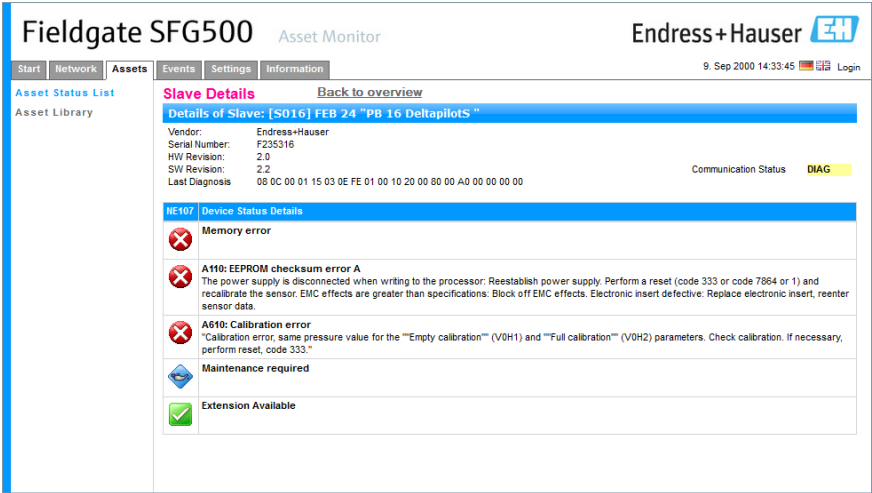
Fieldgate SFG500 “Asset Monitor”

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.



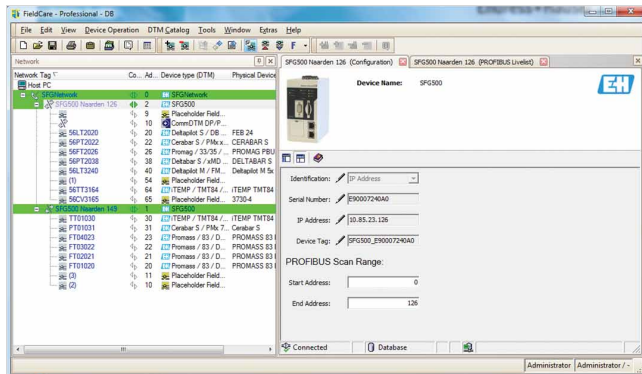
Event e-mail notification listing all events of a certain time period



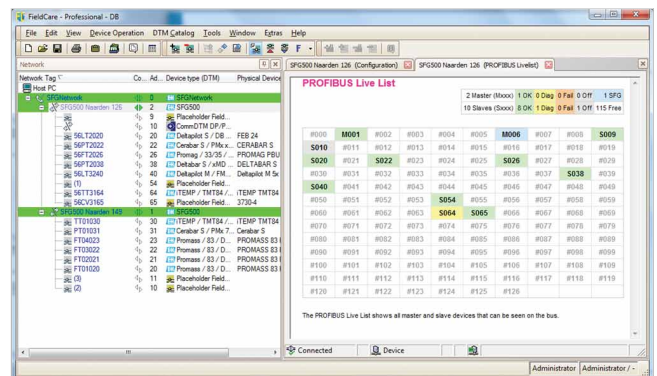
Slave Details showing device status with cause and remedy information

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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