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SP 75



- N** Monteringsveiledning CS 2000 - WEB modul
- S** Monteringsanvisning CS 2000 - WEB modul
- E** Installation Instructions CS 2000 - WEB module

ART.NR.:
112436

N

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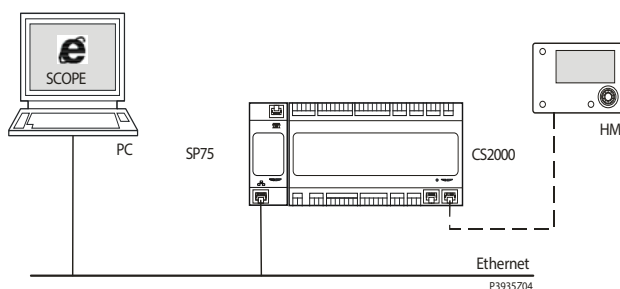
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N **Sette i drift WEB-moduler**
 CS2000 regulatoren og WEB-modulen SP75 inngår i denne prosedyren:

S **Driftsättning av WEB-moduler**
 CS2000 styrenheten og WEB-modulen SP75 är inblandade i denna åtgärd:

E **Commission WEB modules**
 CS2000 controller and the WEB module SP75 are involved in this action:



N **Slik konfigureres WEB-modulen:**
 Gå frem på følgende måte for å konfigurere SP75-modulen og kople den til Modbus-bussen:

Trinn	Handling
1	Regulator AV
2	Kople SP75-modulen til regulatoren med pluggforbindelse.
3	Kople TCP/IP-busskabelen til SP75-modulen.
4	Regulator PÅ: Modulen starter/initialisering begynner Når de to lysdiodene "BSP" og "BUS" lyser grønt, er kommunikasjonen med regulatoren og bussen (TCP/IP) aktiv. Advarsel! CS2000 må tilbakestilles en gang til for å oppdatere HMI, før parameteriseringen.

S **Hur WEB-modulen konfigureras:**
 Gör på följande sätt för att konfigurera SP75-modulen och ansluta till nätverket.:

Steg	Åtgärd
1	Styrenhet AV
2	Anslut SP75-modulen till styrenheten med hjälp av kontaktanslutningen.
3	Anslut TCP/IP-busskabeln till SP75-modulen.
4	Styrenhet PÅ: Modulen startar/initialisering börjar Så snart som de två lysdioderna "BSP" och "BUS" lyser med fast grønt sken är kommunikation mellan styrenheten og bussen (TCP/IP) aktiv. Varning! CS2000 måste återställas en andra gång för att uppdatera HMI, före parameteriseringen.

N **Verktøy som trengs:**

- Operørpanel (HMI)
- PC med Webbrowser

S **Verktøy som behövs:**

- Operatörspanel (HMI)
- PC med Webbläsare

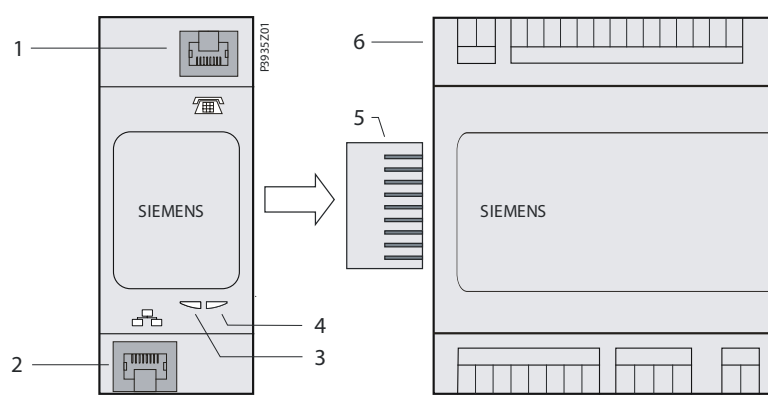
E **Tools needed:**

- Operator unit (HMI)
- PC with Web browser

E **How to configure WEB module:**
 Proceed as follows to configure the SP75 module and connect to the network:

Step	Action
1	Controller OFF
2	Connect SP75 module to the controller via plug connection.
3	Connect the TCP/IP bus cable to the module.
4	Controller ON: The module starts / initialization begins. As soon as the two LEDs "BSP" and "BUS" are steady green, communication with the controller and bus (TCP/IP) is active. Caution! The controller must be reset a second time to update HMI; prior to parameterization

N



Pos.	Element/tilkopling
1	Modemkontakt RJ45-RS-232 serie
2	RJ45-10BaseT Ethernet
3	Statusdisplay "BSP" (Board support package)
4	Statusdisplay "busstilkoplinger ok / busstrafikk"
5	Pluggforbindelse "kommunikasjonsutvidelsesbus"
6	CS2000 regulator

S

Pos.	Element/anslutning
1	Modemkontakt RJ45-RS-232 serie
2	RJ45-10BaseT Ethernet
3	Statusdisplay "BSP" (Board support package)
4	Statusdisplay "bussanslutningar ok / busstrafikk"
5	Kontaktanslutning "Kommunikasjonsutvidningsbus"
6	CS2000 styrenhet

E

Pos.	Element/Connection
1	Modem interface RS232 to RJ45
2	10BaseT Ethernet interface to RJ45
3	Status display "BSP" (Board support package)
4	Status display "bus connections o.k. / bus traffic"
5	Plug connection "Communication extension bus"
6	CS2000 controller

N
Hvordan konfigurere kontrolleren:

Gå frem på følgende måte for å konfigurere SP75 modulen:

Bruk operatørpanelet (HMI) for å angi TCP/IP-innstillingene.

Aktuelle verdier og statuser er vist på hovedsiden til modulen, alle innstillingene gjøres i de underliggende sidene til TCP/IP.

Step	Action
1	Logg inn i HMI-DM med passordet 2000.
2	Gå til Hovedmeny > Systemoversikt > Kommunikasjon > Oversikt komm. moduler > Modul [x] WEB. OBS! [x] er posisjonen til den tilkoblede kommunikasjonsmodulen. Denne brukes kun hvis det er flere enn en modul koblet til.
3	Gå til TCP/IP innstillinger (Hvis den eksisterer) TCP/IP innstillinger må stilles inn via HMI.
4	Velg DHCP: Aktiv innebærer at IP adressen er gitt fra en DHCP server på nettverket. Passiv innebærer at en fast IP adresse anvendes slik som innstillingene blir beskrevet under. Fast IP adresse anbefales.
5	Velg IP, Mask og Gateway: IP innstillingene for modulen anvendes for en fast IP adresse og er kun aktiv hvis DHCP parameterne er innstilt som passiv. OBS! Avslutt alle linjer med # Bruk aldri mellomrom på slutten. Disse innstillingene er ikke de samme TCP/IP innstillingene som for en kontrollør hvor innebygd TCP/IP er benyttet.
6	Velg "Write" innstillinger: Still "Write-settings" som aktiv og gå deretter tilbake til modulens hovedside med ESC. Dette må gjøres etter hver forandring i undermenyen.
7	Velg "Omstart" Når man er ferdig, start om kontrolleren med denne kommandoen, enten her eller ved å først gå tilbake en side med ESC, til "Oversikt komm. moduler".

Etter omstart er SP75 konfigurert og klar til bruk.

Forklaringer:

Parametere	Forklaringer
Status	Kommunikasjonsmodulens nåværende status.
Komm. feil	Aktiv - Kommunikasjonsfeil
DHCP	DHCP aktiv/passiv. Passiv = Fast IP adresse
WINS navn	WINS navn på TCP/IP nettverket.
IP	Modul IP. Aktuell i hovedsiden for modulen.
Mask	Modul mask. Aktuell i hovedsiden for modulen.
Gateway	Modul gateway. Aktuell i hovedsiden for modulen.
Software versjon	Module BSP versjon.
Bruk standard	Tilbakestill kommunikasjonsmodulens parametere til standardinnstillingen

S
Hur kontrollern konfigureras:

Gå fram på följande vis för att konfigurera SP75 modulen steg för steg:
Använd operatörspanelen (HMI) för att ange TCP/IP-inställningarna.

Verkliga värden och status visas på startsidan medan alla inställningar för TCP/IP görs i underliggande sidor.

Step	Action
1	Logga in på HMI med lösenordet 2000.
2	Gå till Huvudmeny > Systemöversikt > Kommunikation > Översikt komm. moduler > Modul X Web > OBS! [x] är positionen för den anslutna kommunikationsmodulen. Den här informationen används enbart vid anslutning av flera moduler samtidigt.
3	Gå till TCP/IP (Om den existerar !) > TCP/IP-inställningarna måste utföras med hjälp av HMI.
4	Välj DHCP: Aktiv innebär att IP adressen kommer från en DHCP server i nätverket. Passiv innebär att en fast IP address används i inställningarna som beskrivs nedan. Fast IP address rekommenderas.
5	Välj IP, Mask och Gateway: IP inställningarna för modulen används för en fast IP address och är endast aktiv om DHCP parametern är inställd som passiv. OBS! Avsluta alla linjer med #. Använd aldrig "mellanslag" i slutet.
6	Välj "Write"-inställningar: Ställ "Write settings" som aktiv och återvänd därefter till modulens huvudsida med ESC. Det måste göras efter varje förändring i undermenyerna.
7	Välj "Omstart": Efter det att ändringarna slutförts måste kontrollern startas om med det här kommandot.

Efter omstarten är SP75 modulen färdig för användning.

Förklaringar:

Parameter	Förklaring
Status	Kommunikationsmodulens aktuella status
Komm. avbrott	Aktiv = Kommunikationsfel.
DHCP	DHCP aktiv/passiv. Passiv = Fast IP address
WINS namn	Synligt WINS namn på TCP/IP nätverket.
IP	Modulens IP-adress.
Mask	Modulens mask.
Gateway	Modulens gateway.
Mjukvaruversion	Modulens mjukvaruversion.
Använd default	Återställer modulens kommunikationsinställningar till ursprungligt läge.

E
How to configure the controller:

Proceed as follows to configure the SP75 module step by step:
Use the operator unit (HMI) to enter TCP/IP basic settings.

Actual values and status is showed in the main page of the module, all settings are made in the sub pages for TCP/IP.

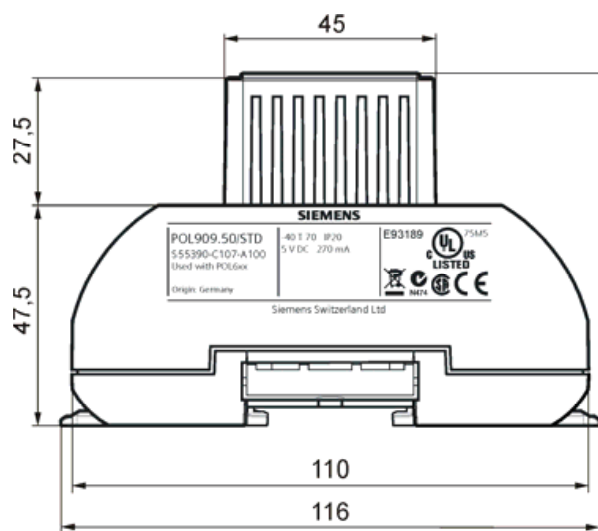
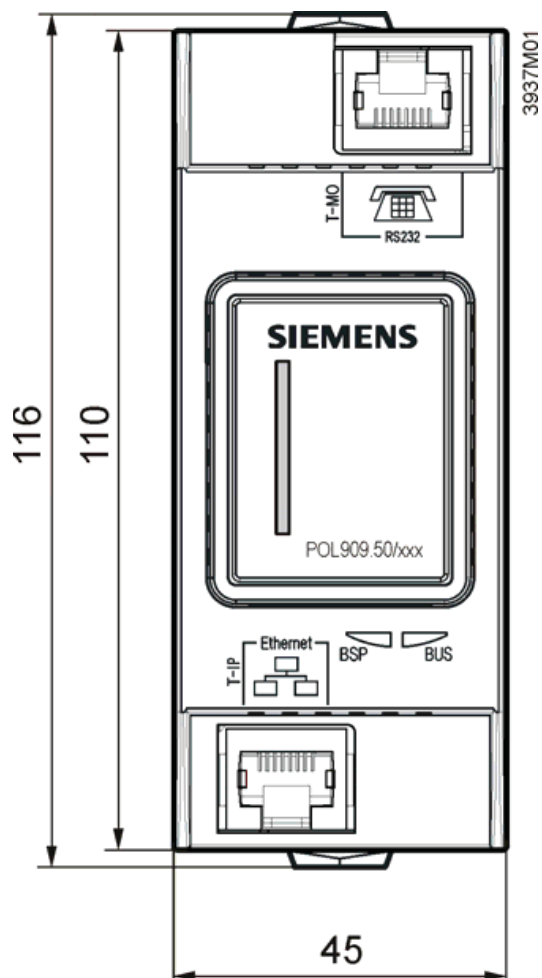
Step	Action
1	Log in to HMI-DM using the password 2000.
2	Go to Main Index > System overview > Communication > Comm module overview > Module[x] Web > Note! [x] is the position of the connected communication module. This is only information used when more than one module is connected.
3	Go to TCP/IP settings (If exist)-> The TCP/IP settings must be set up via HMI.
4	Select DHCP: Active means that the IP address is given from a DHCP server on the network. Passive means that a fixed IP address will be used as the settings described below. Fixed IP address is preferred.
5	Select IP, Mask and Gateway: The IP settings for the module are used for a fixed IP address and are only active if the DHCP parameter is set to Passive. Note! End a line with #. Never use a "space" at the end. These settings are not the same as the TCP/IP settings for the controller if a controller with inbuilt TCP/IP is used.
6	Select Write settings: Set Write settings to Active and go back to the main page of the module with ESC. This must be done after any new change in this page.
7	Select Reset required !: When done, restart controller using this command, either here or by first go back one pages with ESC, to Comm module overview.

After restart, the SP75 module is configured and ready to use.

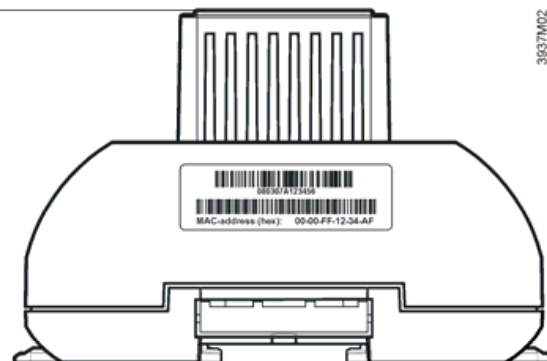
Abbreviations:

Parameters	Explanation
State	Current status of the communication module
Comm failure	Active = Communications error.
DHCP	DHCP active/passive. Passive = Fixed IP address
WINS name	WINS name on the TCP/IP network.
IP	Module IP. Actual in the main page for the module.
Mask	Module mask. Actual in the main page for the module.
Gateway	Module gateway. Actual in the main page for the module.
Software version	Module BSP version.
Use default	Reset communication module parameterization to default setting

- N** Målskisse
- S** Måttuppgifter
- E** Dimensions



Høyre side
Högre sida
Right side



Venstre side
Vänster sida
Left side

N Tekniske data		
Generelt	Dimensjoner Vekt ekskl. emballasje Base Deksel Strømforsyning Microprosessor	B x H x D: 45 x 110 x 75 mm 102 g Plast, pigeon-blue RAL 5014 Plast, light-grey RAL 7035 Via system interface fra controller DC 5 V (+5% / -5%), max. 270 mA ARM926EJ-S™ ARM® Thumb®, 400MHz
	Minne	64 MB NAND FLASH (3,3 V) 64 MB SDRAM (133 MHz) Stöd för SD-kort
	Datatilkobling	- 10BaseT Ethernet, med link detection - Modem
	Kontakter RJ45-10BaseT Ethernet RJ45-RS-232 serie	med link detection med full modem support
	Flash programmering	JTAG support gjennom CPU, last ned via nettverk
	Software Operativ system Lagring Web server RMS Menytre	Windows CE 6.0 FlashFile-system Med BGI extension og access security Fjern håndtering av filbehandling, prosessstyring og register. Direkte betjening av nedlastede applikasjoner
Minnekortleser	SD-kort opp til 8GB	
IP	Ethernet 10/100 Mbit (IEEE 802.3U) Tilkoblingskabel	RJ45 jack, 8 pins
Modem port	Tilkoblingskabel RS-232	RJ45 jack, 8 pins Support av GSM, GPRS Modems
COMM interface plug	Kortkontakt	ZEC1,0/10-LPV-3,5 GY35AUC2CII
Omgivelser	Operasjon Temperatur Fuktighet Atmosfærisk trykk	IEC 721-3-3 -40...70 °C <90% r.h. Min. 700 hPa, tilsvarende max 3000 m.o.h
	Transport Temperatur Fuktighet Atmosfærisk trykk	IEC 721-3-2 -40...70 °C <95% r.h. Min. 260 hPa, tilsvarende max 10 000 m.o.h
Beskyttelse	Beskyttelsesgrad	IP20 (EN 60529)
Standarder	Produkt sikkerhet Automatiske elektriske kontroller Elektromagnetisk kompatibilitet Immunitet Utslipp CE godkjenning EMC direktiv Svakstrøm Svakstrøm direktiv Oppføringer RoHS direktiv	EN 60730-1 EN 60730-1 +A16 EN 60730-1 +A16 2004/108/EC 2006/95/EC UL916, UL873 CSA C22.2M205 2002/95/EC (Europa) ACPEIP (China)

S Tekniska data		
Generellt	Dimensioner Vikt exkl. förpackning Bas Lock Strömförsörjning Microprocessor	B x H x D: 45 x 110 x 75 mm 102 g Plast, pigeon-blue RAL 5014 Plast, light-grey RAL 7035 Via systeminterface från controller DC 5 V (+5% / -5%), max. 270 mA ARM926EJ-S™ ARM® Thumb®, 400MHz
	Minne	64 MB NAND FLASH (3,3 V) 64 MB SDRAM (133 MHz) Stöd för SD-kort
	Dataanslutning	- 10BaseT Ethernet, med identifiering av förbindning - Modem
	Kontakter RJ45-10BaseT Ethernet RJ45-RS-232 serie	med identifiering av förbindning med full modemstöd
	Flash programmering	JTAG-stöd via CPU, nedladdning via Ethernet
	Software Operativsystem Lagring Web server RMS Generisk trädstruktur	Windows CE 6.0 FlashFile-system Med BGI-utvidgning och tillträdesskydd Fjärrbetjäning för filhantering, processhantering och registrering Direkt betjäning av laddade applikationer
Minneskortsläsare	SD-kort upp till 8GB	
IP	Ethernet 10/100 Mbit (IEEE 802.3U) Anslutningskabel	RJ45 jack, 8 pins
Modem port	Anslutningskabel RS-232	RJ45 jack, 8 pins Support av GSM, GPRS Modems
COMM gränssnittsanslutning	modul-til modul	ZEC1,0/10-LPV-3,5 GY35AUC2C11
Omgivning	Operation Temperatur Fukt Atmosfärstryck	IEC 721-3-3 -40...70 °C <90% r.h. Min. 700 hPa, motsvarande max 3000 m.ö.h
	Transport Temperatur Fukt Atmosfärstryck	IEC 721-3-2 -40...70 °C <95% r.h. Min. 260 hPa, motsvarande max 10 000 m.ö.h
Skydd	Kapslingsgrad	IP20 (EN 60529)
Standarder	Produktsäkerhet Automatisk elektrisk controller Elektromagnetisk kompatibilitet Immunitet Utsläpp CE godkännande EMC direktiv Lågspänning Lågspänningsdirektiv Listings RoHS direktiv	EN 60730-1 EN 60730-1 +A16 EN 60730-1 +A16 2004/108/EC 2006/95/EC UL916, UL873 CSA C22.2M205 2002/95/EC (Europa) ACPEIP (China)

E Technical data		
General data	Dimensions	W x H x D: 45 x 110 x 75 mm
	Weight excl. packaging	102 g
	Base	Plastic, pigeon-blue RAL 5014
	Housing	Plastic, light-grey RAL 7035
	Power supply	Via system interface from controller DC 5 V (+5% / -5%), max. 270 mA
	Microprocessor	ARM926EJ-S™ ARM® Thumb®, 400MHz
	Memory	64 MB NAND FLASH (3,3 V) 64 MB SDRAM (133 MHz) Support for SD-card
	Data connectivity	- 10BaseT Ethernet, with link detection - Modem
	Connectors:	
	RJ45-10BaseT Ethernet	with link detection
	RJ45-RS-232 serial	with full modem support
	Flash programming	JTAG support through CPU, download via Ethernet
	Software	
	Operating system	Windows CE 5.0
	Storage	Intel Persistent Storage Manager (IPSM)
	Web server	With BGI extension and access security
	RMS	Remote management for file handling, process management and registry
	Generic treeview	Out of the box operation of loaded HVAC applications
Memorycard	SD-card up to 8GB	
IP	Ethernet 10/100 Mbit (IEEE 802.3U) Cable connection	RJ45 jack, 8 pins
Modem port	Cable connection RS-232	RJ45 jack, 8 pins Support of GSM, GPRS Modems
COMM interface plug	Board-to-board	ZEC1,0/10-LPV-3,5 GY35AUC2CII
Environmental conditions	Operation	IEC 721-3-3
	Temperature	-40...70 °C
	Humidity	<90% r.h.
	Atmospheric pressure	Min. 700 hPa, corresponding to max. 3,000 m above sea level
	Transport	IEC 721-3-2
	Temperature	-40...70 °C
	Humidity	<95% r.h.
	Atmospheric pressure	Min. 260 hPa, corresponding to max. 10,000 m above sea level
Protection	Degree of protection	IP20 (EN 60529)
Standards	Product safety	
	Automatic electrical controls	EN 60730-1
	Electromagnetic compatibility	
	Immunity	EN 60730-1 +A16
	Emissions	EN 60730-1 +A16
	CE conformity	
	EMC directive	2004/108/EC
	Low-voltage directive	2006/95/EC
	Listings	UL916, UL873 CSA C22.2M205
	RoHS directive	2002/95/EC (Europe) ACPEIP (China)

N**WEB-servicelysdioder for feilsøking (ALARM)**

Modus	BUS LED status
IP kjører og kommuniserer	Grønn på
IP kjører ikke	Gul på
Maskinvarafeil	Rød på
Modus	BSP LED status
BSP kjører og kommuniserer med regulator	Grønn på
BSP kjører, men ingen kommunikasjon med regulator	Gul på
BSP feil (software feil)	Rød blinker ved 2Hz

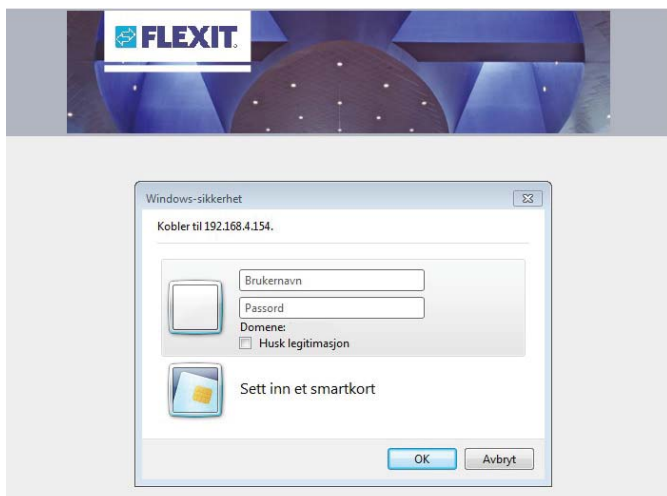
S**WEB servicelysdioder för diagnostik (ALARM)**

Läge	BUS LED status
IP BSP igång och kommuniserar	Grön - fast sken
IP ej igång	Gul - fast sken
Maskinvarufel	Röd - fast sken
Läge	BSP LED status
BSP igång och kommuniserar med styrenhet	Grön - fast sken
BSP igång men ingen kommunikation med styrenheten	Gul - fast sken
BSP fel (programfel)	Röd - blinkande sken

E**WEB service pin LEDs for diagnostics (ALARM)**

Mode	BUS LED status
IP running and communication ok	Green on
IP not running	Yellow on
Hardware error	Red on
Mode	BSP LED status
BSP running and communication with controller	Green on
BSP running but no communication with controller	Yellow on
BSP error (software error)	Red flashing at 2 Hz

- N** Innloggingsside
- S** Inloggningssida
- E** Login page



- N** Man må logge inn i SP75 for å få tilgang til systemet. Det er forberedt flere standardbrukere med ulikt tilgangsnivå.
- S** Det är nödvändigt att logga in på SP75 för att få tillgång till systemet. Det finns flera standardanvändare med olika behörigheter upplagda.
- E** It is needed to login to the SP75 to get access. There is some default users prepared with different access levels.

Usertype	Description	Username	Password
Guest	Only read access	GUEST	guest
User	Read and write access to normal setpoints	USER	user
Service	Read and write access, systemsetup, add users etc.	SERVICE	service
Factory	Read and write access, systemsetup, add users etc.	FACTORY	factory

- N** Startside
- S** Startside
- E** Start page



N Systemskisse

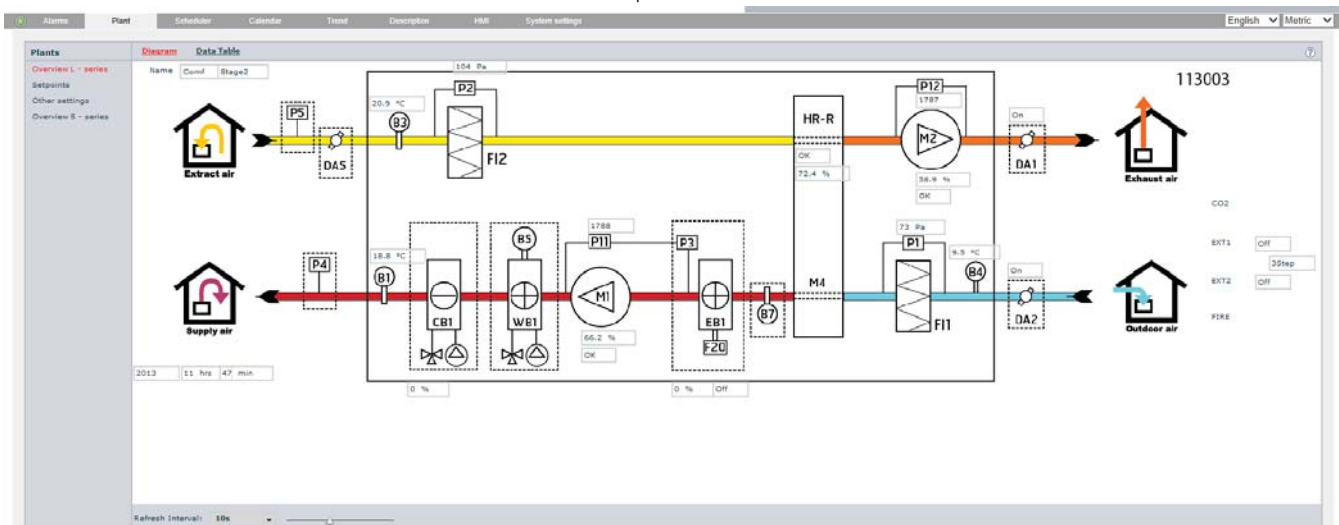
Fanen anlegg gir tilgang til to typer Systemskisser Oversikt L-serie og Oversikt S-serie. Her velger du den systemskissen som samsvarer med aggregatet du har. For mer informasjon om SCADA brukermenyene, se kapittel 4 i seksjon 2.

S Flödesbild

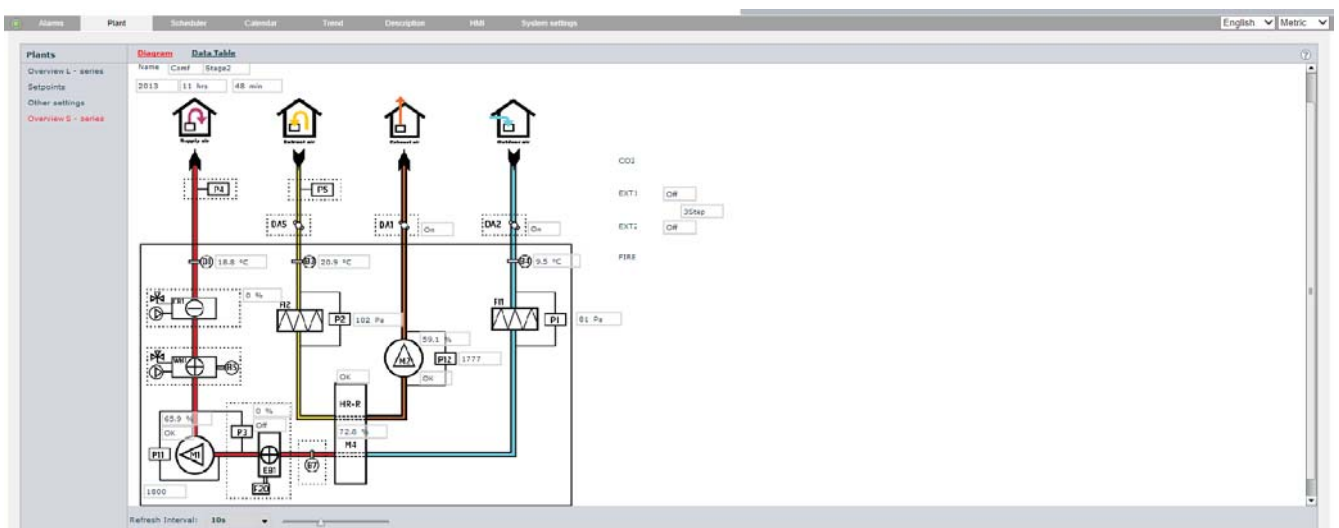
Under fliken anläggning har man tilgang till 2 typer av flödesbilder Översikt L-serie och Översikt S-serie. Här väljer man den översiktsbild som stämmer överens med det aggregat man har. För mer information om SCADA användarmenyer se kapitel 4 i sektion 2.

E Diagram

The tab plant provides access to two types of diagrams, Overview L-series and Overview S-series. Here you can select the overview that match the unit you have. For more information about SCADA user menus, see chapter 4 in section 2.



Oversikt L-serie
Översikt L-serie
Overview L-series



Oversikt S-serie
Översikt S-serie
Overview S-series

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1. Overview

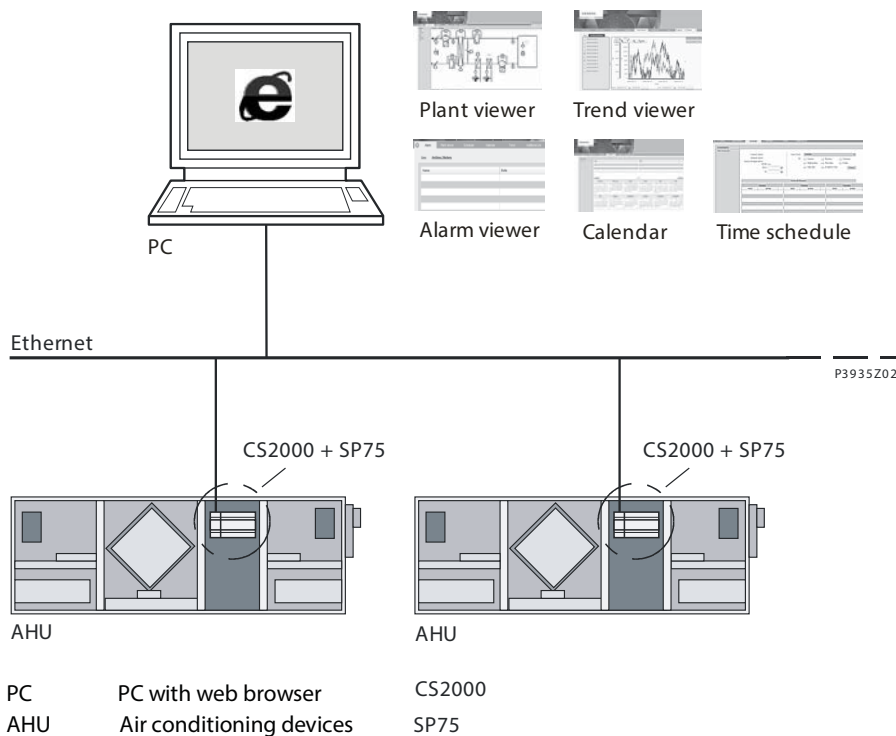
1.1. Purpose of the module

Operation and monitoring

SP75 offers a complete solution for operating and observing plants via a web browser – both locally and via the web.

Principle setup

The diagram illustrates the principle setup and basic functions of operation based on a locally operated plant. It consists of a number of air conditioning devices controlled and regulated by CS 2000 controllers. A CS 2000 SP75 communication module is connected to every controller:



Operational functions

The menus and operating functions shown above are available. These are:

Menu	General function
Plant viewer	Monitor and operate data points via plant images.
Alarm viewer	Table of all alarms with timestamp, value and status information.
Trend viewer	Log and graphical presentation of data point values.
Calendar	Calendar for creating timer schedules in conjunction with the "Time Schedule" menu
Time schedule	Creation of timer schedules in conjunction with the "Calendar" menu

1.2. Communication options

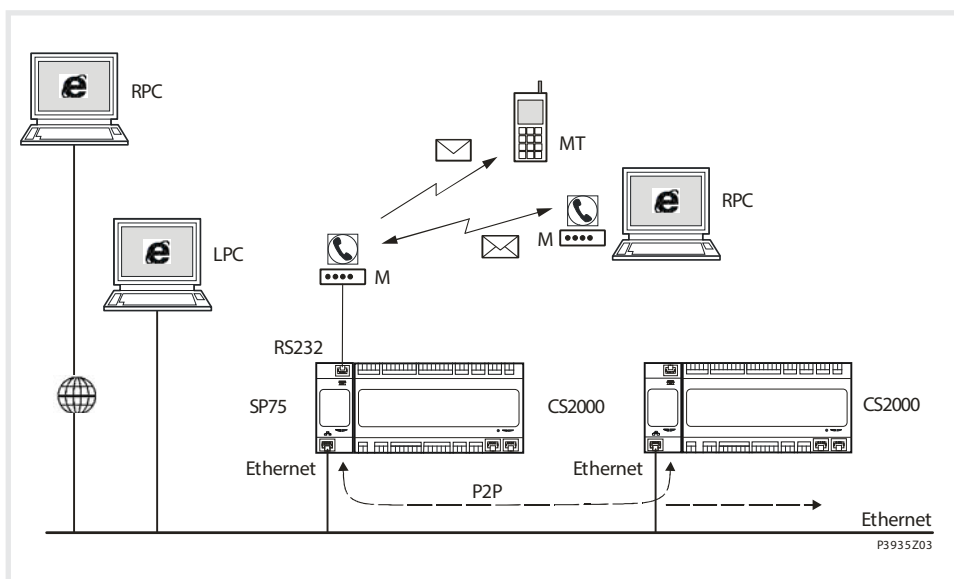
Connection paths

The SP75 allows plants or parts of plants to be operated and monitored by means of the following connection paths:

- at local level via Ethernet
- via the web
- via a modem (Not described in this document)

Overview

The following diagram contains an overview of the basic communication options with the SP75:



Description of the overview

The elements shown and their functions are as follows:

Element	Description/Function
LPC	Local PC with browser and mail program
SP75	SP75 - WEB module CS 2000 communication
CS2000	CS 2000 controller
Ethernet	Ethernet interface / Ethernet bus
P2P	Peer-to-peer communication between two or more CS 2000 controllers for exchanging process data.
RS232	RS232 modem interface including GSM/GPRS support
M	Modems
RPC	Remote PC with browser and mail program
CP	Mobile telephone for receiving SMS

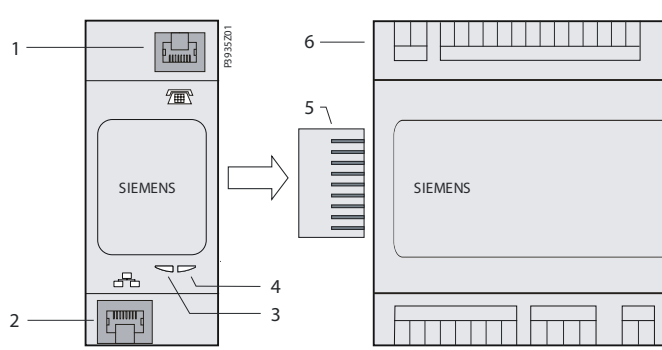
2. Commission instructions

Setup

The diagram shows SP75. It is connected to the CS 2000 controller by means of the internal communication expansion bus. This is achieved directly by means of a plug-in connection to the left side of the controller

Element and connections:

The elements and connections shown in the diagram are as follows:



Pos.	Element/Connection
1	Modem interface RS232 to RJ45
2	10BaseT Ethernet interface to RJ45
3	"BSP" LED
4	"BUS" LED
5	Connector
6	CS 2000 controller

Status displays - "BSP" LED

Status displays "BSP" and "BUS" can be red, green or yellow. This LED provides information about the status of the "Board Support Package"(BSP). The color and frequency with which the LED flashes have the following meaning:

Color	Flash frequency	Significance/Mode
Red / Yellow	1 s "on" / 1 s "off"	Upgrade mode
Green	Continuously "on"	BSP running and communication in progress with the controller.
Yellow	Continuously "on"	BSP running but no communication in progress with the controller.
Red	Flashing at 2 Hz	BSP error (software error)
Red	Continuously "on"	Hardware fault

Status displays - "BUS" LED This LED shows the status of external communication with the bus, not communication with the controller. The color and frequency with which the LED flashes have the following meaning:

Color	Flash frequency	Significance/Mode
Green	Continuously "on"	Communication is active
Yellow	Continuously "on"	Communication interrupted

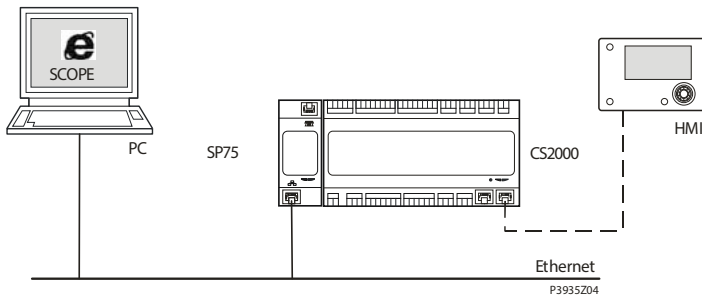
When both LEDs are dark, then the power supply is outside the permissible range.

2.1. Connecting SP75 module

Prerequisites for connecting and configuring:
Working application loaded and started in the CS 2000 controller.

Devices involved:

The CS 2000 and the SP75 communication module are involved in this action



Tools needed:

Tools needed for connecting and configuring:

- Operator unit (HMI-DM).
- PC with web browser.

Connect SP75 module:

Proceed as follows to connect the SP75 module to the bus:

Step	Action
1	Controller OFF
2	Connect SP75 module to the controller via plug connection.
3	Connect the TCP/IP bus cable to the module.
4	Controller ON: The module starts / initialization begins. As soon as the two LEDs "BSP" and "BUS" are steady green, communication with the controller and bus (TCP/IP) is active. Caution! The controller must be reset a second time to update HMI; prior to parameterization

2.2. Configure module via HMI

Basic settings/parameters

Use the operator unit (HMI-DM) to enter TCP/IP basic settings.

Actual values and status is showed in the main page of the module, all settings are made in the sub pages for TCP/IP.

Parameters	Explanation
State	Current status of the communication module
Comm failure	Active = Communications error.
DHCP	DHCP active/passive. Passive = Fixed IP address
WINS name	WINS name on the TCP/IP network.
IP	Module IP. Actual in the main page for the module.
Mask	Module mask. Actual in the main page for the module.
Gateway	Module gateway. Actual in the main page for the module.
Software version	Module BSP version.
Communication (Language)	Must be Mapping 1, 16384 or COM1.
Use default	Reset communication module parameterization to default setting

Procedure

Proceed as follows to configure the SP75 module step by step:

Step	Action
1	Log in to HMI-DM using the password for level 4 (Service), default 2000.
2	Go to Main Index > System overview > Communication > Comm module overview > Module[x] SP75 > Note! [x] is the position of the connected communication module. This is only information used when more than one module is connected.
3	Go to TCP/IP settings (If exist)> The TCP/IP settings must be set up via HMI-DM.
4	Select DHCP: Active means that the IP address is given from a DHCP server on the network. Passive means that a fixed IP address will be used as the settings described below. Fixed IP address is preferred.
5	Select IP, Mask and Gateway: The IP settings for the module are used for a fixed IP address and are only active if the DHCP parameter is set to Passive. Note! End a line with #. Never use a "space" at the end. These settings are not the same as the TCP/IP settings for the controller if a controller with inbuilt TCP/IP is used.
6	Select Write settings: Set Write settings to Active and go back to the main page of the module with ESC. This must be done after any new change in this page.
7	Select Reset required !!: When done, restart controller using this command, either here or by first go back one pages with ESC, to Comm module overview.

After restart, the SP75 module is configured and ready to use.

2.3. Default users and passwords

Default users SP75

It is needed to login to the SP75 to get access. There is some default users prepared with different access levels.

Usertype	Description	Username	Password
Guest	Only read access	GUEST	guest
User	Read and write access to normal setpoints	USER	user
Service	Read and write access, systemsetup, add users etc.	SERVICE	service
Factory	Read and write access, systemsetup, add users etc.	FACTORY	factory

Default user HMI simulation

Username: ADMIN

Password: SBTAdmin



See further instructions how to set up E-mail or SMS if this must be used



OBS! Other setting than described above are only options and should normally not be changed



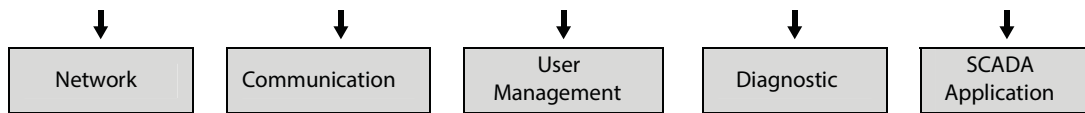
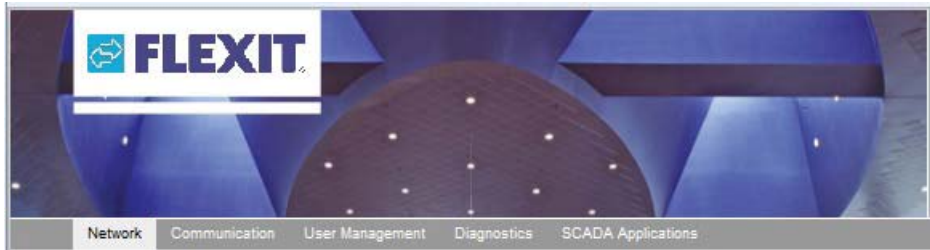
WARNING! As a matter of principle, the controller must be restarted with "Reset required!" or power off/on the controller after changing any settings to assume the data.

3. Set up and manage SP75

3.1. The "Management" menu

Purpose

The "Management" menu is called using the start page of the web visualization. It contains the tabs with the menus for configuring the SP75.



Tabs/menus

The tabs with their overview pages and menus are:

Tab	Menu
Network	<ul style="list-style-type: none"> • Network settings • Modem configuration • Dial up connection • P2P configuration
Communication	<ul style="list-style-type: none"> • Mail server config • Email settings • SMS settings
User Management	<ul style="list-style-type: none"> • Set up user profiles
Diagnostic	<ul style="list-style-type: none"> • View log files • System state • Reboot system
SCADA Application	<ul style="list-style-type: none"> • Install SCADA • Neighborhood system

The contents of the overview pages shown here are reproduced in text form in the sections below.

3.2. Layout of the menus and input pages

Examples "Network settings"

Select a tab in the Management menu (e.g. Network) and then choose the required menu on the relevant overview page (e.g. Network settings):



P3935O03

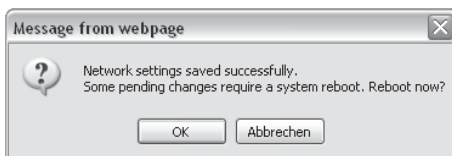
Explanations

The menus and input pages mainly have the following layout:

Element	Description
Tab	e.g. Network
Menus	e.g. Network settings
Input pages	Text, dialog and option field for entry or selection.
Help texts	Example above: "You can get IP settings assigned..." These explanations are contained in the document text.
...*	Required inputs
Buttons	Example: OK: see below
	Example: Cancel: Back to overview page

OK button

Clicking OK opens the following dialog box:



Effects

Clicking one of the buttons has the following effect on all dialog windows of the same name:

Buttons	Effects
OK	A restart takes place. The entries made are subsequently effective
Cancel	The inputs made are saved, but only become effective at the next restart.

3.3. Making network settings

Purpose

You can carry out the IP configuration of the SP75 in the network settings menu, i.e.:

- Assign IP address
- Assign DNS server address

Prerequisites

The SP75 is installed and the connection is initiated, see section 2.1 - Connecting SP75 module


Two options

There are two options for assigning the addresses:

- Automatically via a DHCP server (if available and supported by the network).
- Manual entry

Automatic assignment

Automatic assignment is performed as described below:

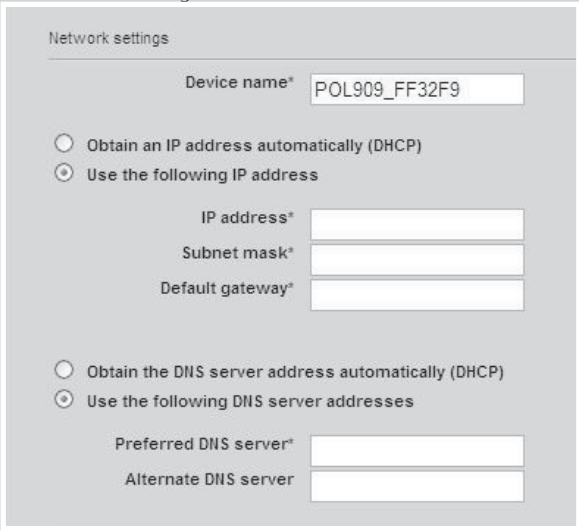
Step	Action
1	<p>Select the Network settings menu in the Network tab. The Network settings input page opens:</p> 
2	<p>Select the required options. The two automatic options were left unchanged in the screenshot above (default setting).</p>
3	<p>Complete the inputs by pressing Ok and confirm the "Network settings saved successfully" message in the subsequent Message from webpage dialog box with Ok or Cancel. See the paragraph on the "OK button" on the previous page.</p>

Explanations

Element	Description
Device name	Factory entry. Supplied by the SP75. This can be changed here, e.g. on a plant-specific basis.
Obtain an IP address automatically	Have the IP address assigned by the DHCP server.
Use the following IP address	Enter the IP address manually; see next page.
Obtain the DNS server address automatically	Have the DNS server address assigned by the DHCP server.
Use the following DNS server address	Enter the DNS server address manually; see next page.

Manual assignment


IP and DNS server addresses are manually assigned as follows:

Step	Action
1	<p>Select the Network settings menu in the Network tab and then choose the required options for manual assignment, i.e.:</p> <ul style="list-style-type: none"> – Use the following IP address – Use the following DNS server address  <p>The two manual assignments were selected in the example above.</p>
2	Enter the required addresses in the text fields; see the explanations below.
3	Complete the inputs by pressing OK and confirm the "Network settings saved successfully" message in the subsequent Message from webpage dialog box with OK or Cancel.

Assignment of the IP address

Explanations of the entries in the text fields:

Text field	Description
IP address	Static IP address of the SP75
Subnet mask	Subnet mask to be used
Default gateway	Gateway to be used

 **WARNING! Take care when defining and changing these settings. Ask your network administrator about the valid addresses. If you make incorrect entries, you can no longer access the SP75 via the network.**

Assignment of the DNS server

Explanations of the entries in the text fields:

Text field	Description
Preferred DNS server	Address of the (preferred) DNS server
Alternate DNS server	Address of an alternative DNS server (optional) This is used if the preferred server is unavailable.

3.4. Configuring mail servers

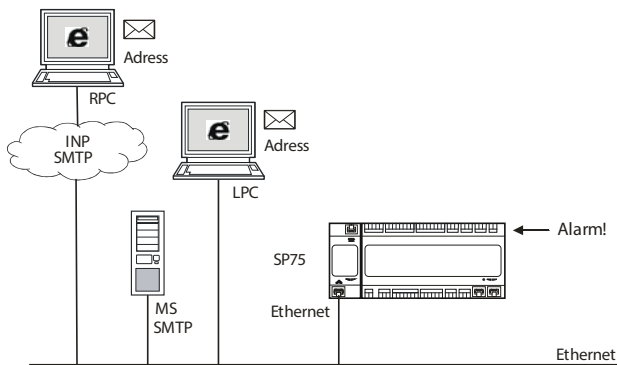
Purpose

The settings for the mail server can be made on this page. These involve:

- Configuring the SMTP server
- Authenticating POP3 before SMTP (optional)

Participating elements

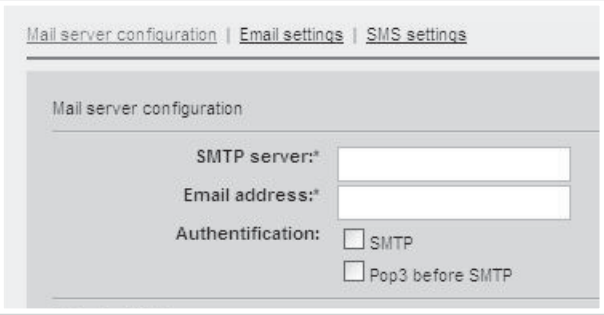
The elements involved in the configuration are:



INP Internet Provider MS Mail Server
 RPC Remote PC LPC Local PC

Configuration SMTP server

To configure the SMTP server, proceed as follows:

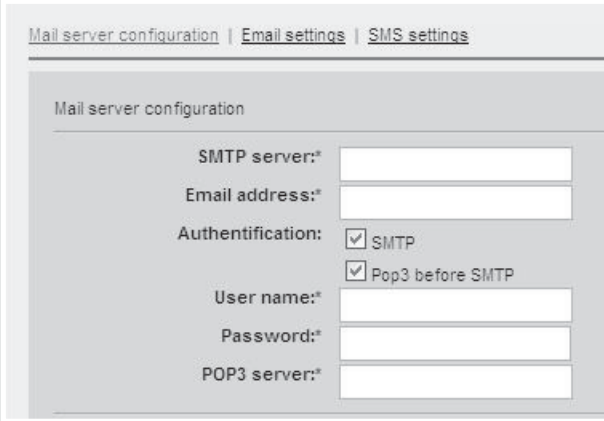
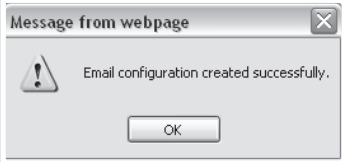
Step	Action
1	Select the Mail server configuration menu in the Communications tab. 
2	Make the entries in the text fields and select the relevant checkboxes.
3	Confirm your entries with OK.
4	Confirm the completion message in the popup window with OK.

Explanations for the entries

Entry	Description
SMTP server	Server for outgoing mails from the e-mail sender (e.g. mail.gmx.net)
Email address	The sender's e-mail address (e.g. SP75Test@gmx.ch) This address must already exist!
Authentications	Select the required method. If POP3 before SMTP is selected, then open additional text fields, see next page.

Authenticating POP3

To authenticate POP3 before SMTP, proceed as follows:

Step	Action
1	<p>Select the Mail server configuration menu in the Communication tab and then the POP3 before SMTP checkbox:</p>  <p>The screenshot shows a web interface with a breadcrumb trail: Mail server configuration Email settings SMS settings. Below this is a section titled 'Mail server configuration' containing several input fields and checkboxes: 'SMTP server:*', 'Email address:*', 'Authentication:' (with checked boxes for 'SMTP' and 'Pop3 before SMTP'), 'User name:*', 'Password:*', and 'POP3 server:*'.</p>
2	Make the entries in the additional text fields for "POP3 before SMTP".
3	Confirm your entries with OK.
4	<p>Confirm the completion message in the popup window with OK.</p>  <p>The screenshot shows a small dialog box titled 'Message from webpage' with a close button (X) in the top right corner. It contains a warning icon (triangle with exclamation mark) and the text 'Email configuration created successfully.' Below the text is an 'OK' button.</p>

Explanations for the entries

Entry	Description
User name	Example: SP75Test@gmx.ch
Password	Personal password of the mail account
POP3 server	Name of the server Example: pop.gmx.net

3.5. E-mail settings

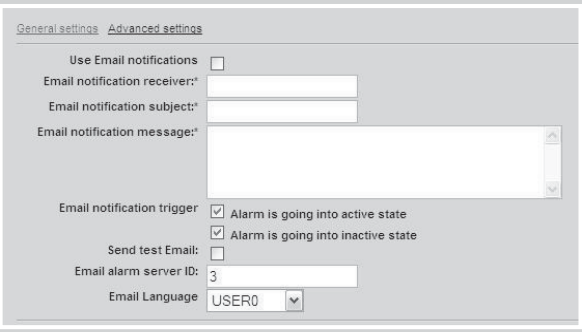
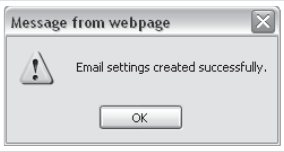
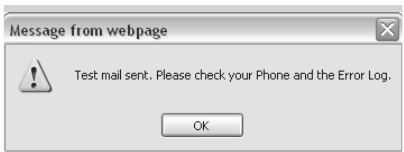
Purpose

This page is where the settings are made for sending e-mails via the SP75. These involve:

- General settings
- Advanced settings for multiple addresses

General settings

To enter the generally required settings, proceed as follows:

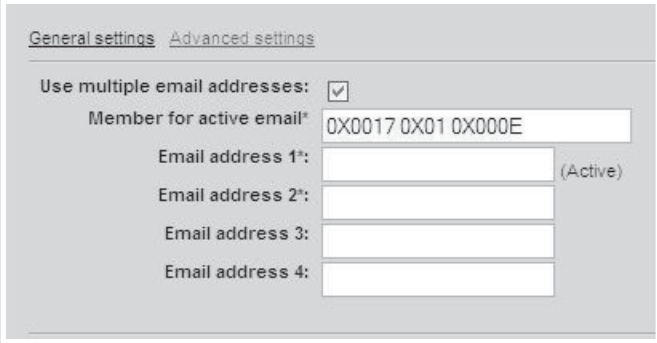
Step	Action
1	Select the Email settings menu and then General settings in the vCommunication tab: 
2	Select the required checkboxes and complete the text fields.
3	Select the appropriate language for e-Mails in the dropdown list box.
4	Confirm your entries with OK.
5	Confirm the completion message in the popup window with OK. 
6	If the Send test Email checkbox has been selected, then confirm the completion message in the popup window with OK: 

Explanations for the entries

Entry	Description
Use Email notifications	Activate/deactivate the e-mail function
Email notification receiver	Address of the e-mail recipient
Email notification subject	Subject line in the e-mail
Email notification message	Text output in the e-mail Entry %s required if alarm texts are also to be sent.
Email notification subject	Trigger if alarm is incoming or outgoing or both.
Send test Email	If this is selected, a test mail is sent when the page is confirmed.
SMS alarm server ID	Alarm server ID for e-mail (member 0x0003)
Email Language	Current language column (i.e. the language used for e-mails) from the language support file "ObjLang.csv".

Advanced settings

To enter the advanced settings for several addresses, proceed as follows:

Step	Action
1	Select the Email settings menu and then Advanced settings in the Communication tab: 
2	Select the Use multiple email addresses checkbox if necessary.
3	In the text fields enter the member and the e-mail addresses.
4	Confirm your entries with OK.
5	Confirm the completion message in the popup window with OK.

Explanations for the entries

Entry	Description
Use multiple email addresses	This option must be selected when multiple target addresses are used.
Member for active email	The value of this member is used to select the appropriate e-mail address.
Email address 1 und 2	The "Use multiple email addresses" option requires at least two e-mail addresses to be entered.
Email address 3 und 4	Enter additional e-mail addresses.



To enable alarm messages (e-mail notification messages) to be sent by the CS2000 controller, the "ObjLang.csv" language support file for the project must be expanded to include the relevant information.

These messages are sent when the entry %s has been made in the general settings under "Email notofication message"

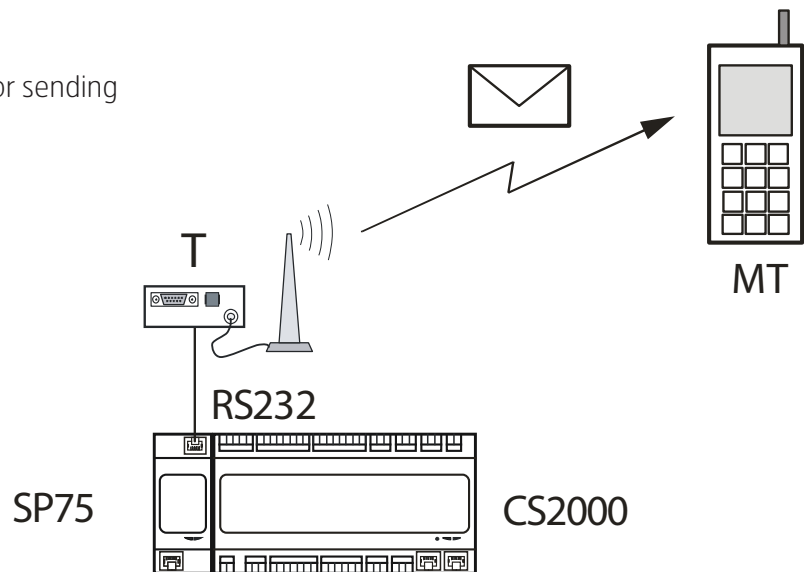
3.6. SMS settings

Purpose

This page is where the settings are made for sending SMS messages via the SP75.

The settings include:

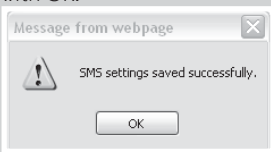
- General settings
- Advanced settings



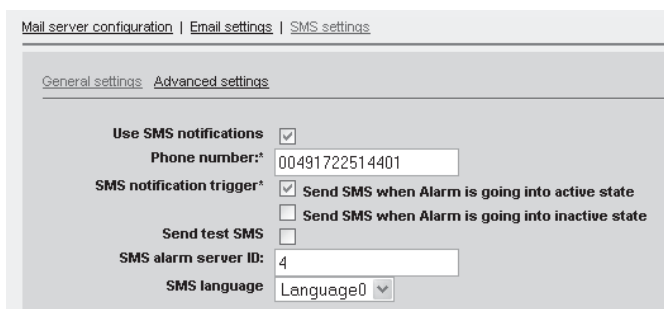
General settings

To make general settings, proceed as follows:

Step	Action
1	Select the SMS settings menu and then General settings in the Communication tab:
2	Select the required checkboxes and complete the text fields.
3	Select the language in the dropdown list box.
4	Confirm your entries with OK.
5	Confirm the completion message in the popup window with OK.



Communication tab:



Explanations

Entry	Description
Use SMS notification	Activates the functions for sending SMS messages.
Phone number	Recipient's telephone number.
SMS notification trigger	Choose whether SMS messages are to be sent when an alarm switches to active or passive status or in both cases.
Send test SMS	SP75 sends a test SMS to the recipient.
SMS alarm server ID	Alarm server ID (0..7). Attention: Only one alarm server is allowed to log on to an ID. In the example above the SMS alarm server with ID4 would log on. Check also the history log and error log respectively whether the log on has taken place and whether the ID was not taken by another alarm server (SCOPE, email etc.)
SMS language	Selection of language0 or language1, see section Fel! Hittar inte referenskölla..

Advanced settings

To make advanced settings, proceed as follows:

Step	Action
1	Select the SMS settings menu and then Advanced settings in the Communication tab:
2	Enter the details for initializing the modem (GSM on SP75).
3	Enter the details for members and telephone numbers.
4	Confirm your entries with OK.

Explanations

Entry	Description
Init 1	Consult the manual for the modem used.
Init String 1 ... Init String 6	
Init Count	
Use controller phone numbers	
Member for phone number 1	
Use multiple phone numbers	
Member for active number	
Member for phone number 1 ... 4	

Communication tab:

[General settings](#) [Advanced settings](#)

Init 1:

Init String 2:

Init String 3:

Init String 4:

Init String 5:

Init String 6:

Init Count:

Use controller phone numbers

Member for phone Number 1:*

Use multiple phone numbers

Member for active number:*

Member for phone number 2:*

Member for phone number 3:

Member for phone number 4:



To enable SMS messages to be sent by the CS2000 controller, the "ObjLang.csv" language support file for the project must be expanded to include the relevant information.

3.7. Managing users

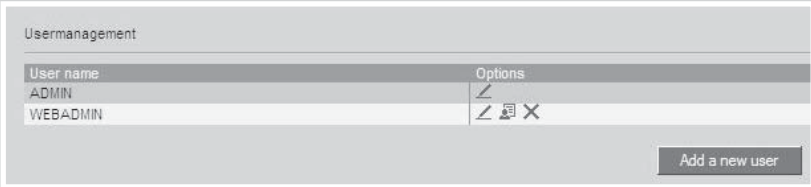
Overview

User management involves the following activities

- Create a list of users
- Edit the user name and password
- Define the user group to which the user belongs

List of users

The list of users is created or changes as follows:

Step	Action
1	
2	Create new users and edit existing lines; see the explanations below.
3	Confirm your entries with OK.

Explanations

Entry	Description
User name column	List of all users of the web visualization. Users ADMIN and WEBADMIN are included by default. ADMIN is authorized to perform all operations. It cannot be deleted.
Options column	Tools for creating and changing entries.
(Edit user)	Opens the page for the relevant user to enable the name and password to be edited.
(Edit group membership)	Opens the page for the relevant user to enable the group membership to be edited. This icon appears as soon as a new user has been added.
(Delete user)	Deletes the user entry.
(Add a new user)	Opens an empty page to enter a user name and password.

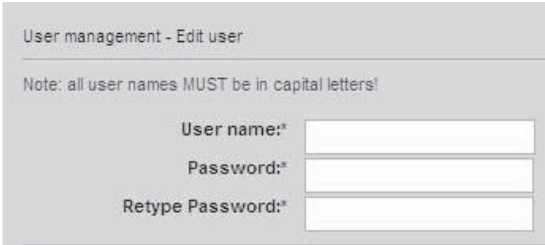
Name and password

These text fields are used to define new users and to change existing entries.

Procedure

Step	Action
1	In the User Management tab/ list of users: – click the Add a new user button – or select an existing line and click Edit the Edit user input page opens:
2	Complete or change the text fields.
3	Confirm your entries with OK.

Edit user input page:



Explanations

Entry	Description
User name	User names.
Password	Passwords must contain at least 3 characters. Case sensitiv. Otherwise there are no other rules.
Retype password	Repeat the password.

Group membership

This group field can be used to assign the defined users membership of different groups with their respective access rights.

Procedure

User management involves the following activities

- Create a list of users
- Edit the user name and password
- Define the user group to which the user belongs

List of users

The list of users is created or changes as follows:

Step	Action
1	<p>Select an existing line in the User Management / List of Users tab and click there on the Edit group membership icon the input page opens (shown in this case for user "LOLO"):</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>Edit group membership of user LOLO</p> <ul style="list-style-type: none"> RasUsers <input type="checkbox"/> HMI <input type="checkbox"/> MCT <input type="checkbox"/> SCADAConfig <input type="checkbox"/> FTP <input type="checkbox"/> SCADAGroup5 <input type="checkbox"/> SCADAGroup4 <input type="checkbox"/> SCADAGroup3 <input type="checkbox"/> SCADAGroup2 <input type="checkbox"/> SCADAGroup1 <input type="checkbox"/> WebUsers <input type="checkbox"/> </div>
2	Select the required checkboxes.
3	Confirm your entries with OK.



OBS! The "WEBUsers" checkbox must be selected so that it is possible to access the SP75 via WEB.

Explanations

Option	User has access rights...
WebUsers	... to the Web (World Wide Web)
SCADAGroup1 ... 5	... to the selected SCADA groups, see section Fel! Hittar inte referenskölla.
FTP	... to the data as per data structure, via FTP client.
SCADAConfig	... to the "SCADA Configuration" menu
MCT	... to the "Management" menu on the start page
RasUsers	... to the "Management" > "Network" menu
HMI	... to the HMI@WEB

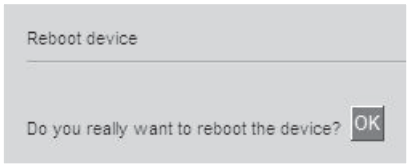
3.8. Diagnostics - restarting the SP75

Purpose

This web page can be used to restart the SP75.

Arranging a restart

Procedure:

Step	Action
1	Select the Reboot system menu item in the Network tab: 
2	Click OK: The SP75 will be restarted.

Effects of the restart

The following takes place at a restart:

- Previous settings are verified if this was not required on an individual basis in the

Message from Webpage dialog box by clicking OK (Reboot).

- Unnecessarily used memory is released again.

Explanation: If there are numerous inquiries to the SP75, then "dead" objects in

the code are not deleted correctly. This is resolved by restarting.

3.9. Neighboring SP75s

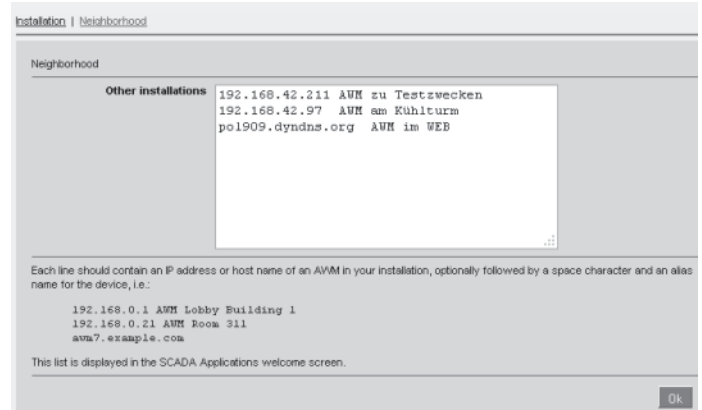
Specifying neighboring SP75s

The IP addresses of the neighboring modules are specified on this web page.

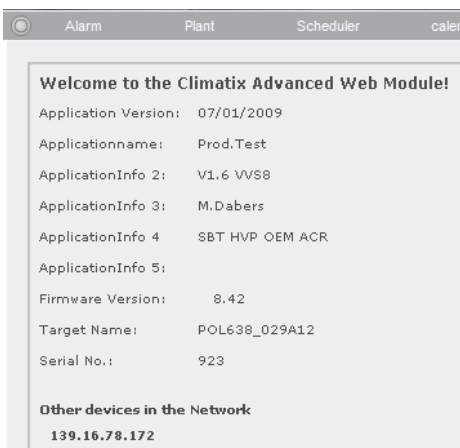
Procedure

Step	Action
1	Select the Neighborhood menu item in the SCADA Applications tab:
2	Enter the IP addresses of the other SP75s of the relevant plant in the text field - separated by commas. In the example shown above the third entry was made by means of a module which can be accessed via the internet. Note: The standard software installed on the SP75s ex works is sufficient for it to be identified as a neighboring module.
3	Confirm the entries with OK. The "Neighborhood settings created successfully" popup message opens. This brings an end to the inputs on this page.

SCADA Applications tab:



A list of the addresses of the neighboring modules then appears after the SCADA application is started on the "Welcome page" under "Other devices in the network":



Clicking on one of these addresses opens a new browser window with the SP75 start page for the relevant module, see section 5 "SCADA user menus".

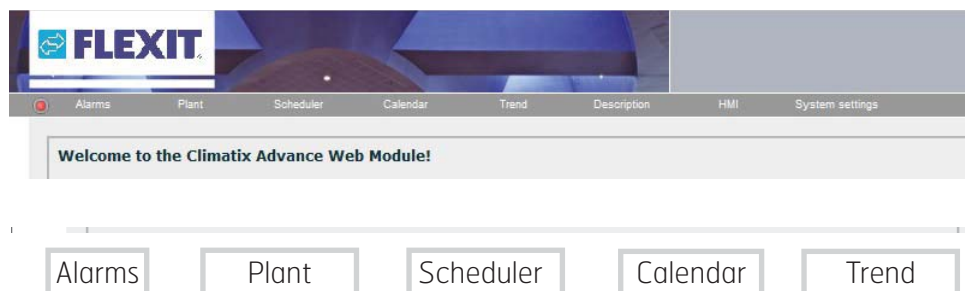
4. SCADA user menus

4.1. Overview

“SCADA” window

The “SCADA” window contains the following menus to enable the user to operate and monitor the associated plants.

Browser > IP Address > Home Page > SCADA Menu > SCADA Window



Menus/Contents

The menus with their windows and contents are as follows:

Menu	Contents
Alarms	All active and historical alarms with timestamp and information about the alert point.
Plant	Plant images with the current values for the data points and alert status display.
Scheduler	Set the schedule for switching the system in line with requirements.
Calendar	Define public holidays and rules.
Trend	View important data points in the trend when and export data.
Description	System description in short form.
HMI	Access the SP75 module with an interface similar to the HMI.
System settings	All general system settings are made in this section.

Controls

Element	Description
“Language” selection list	The translated languages according to section.
“Mass System” selection list	Metric or English (“Metric” in the image above)
	Call online help

4.2. Alarm window

Purpose

The "Alarm" tab contains these two windows:

- "Live" List of current, pending alerts
- "Archive/History" List of alerts that have occurred

Information elements and controls

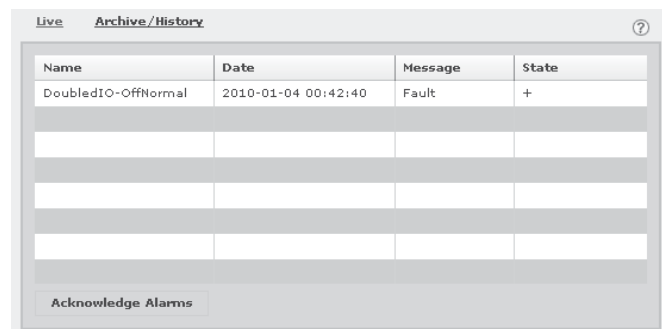
Element	Information / Purpose
"Name" column	Name of the alarm
"Date" column	Timestamp for the alarm
"Message" column	Display alarm text.
"State" column	Status: – outgoing ; + incoming
"Acknowledge Alarms" button	Confirm a marked alarm.

Information elements and controls

Element	Information / Purpose
"Name" column	Name of the alarm
"Date" column	Timestamp for the alarm
"Message" column	Display alarm text.
"State" column	Status: – outgoing ; + incoming
"Acknowledge Alarms" button	Confirm a marked alarm.

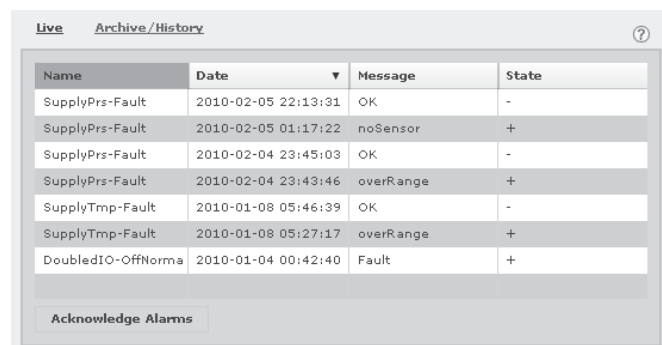
"Live" Window

The following screenshot shows an example:



"Archive/History" window

The following screenshot shows an example:



4.3. Plant view

Purpose

The plant view enables the user to:

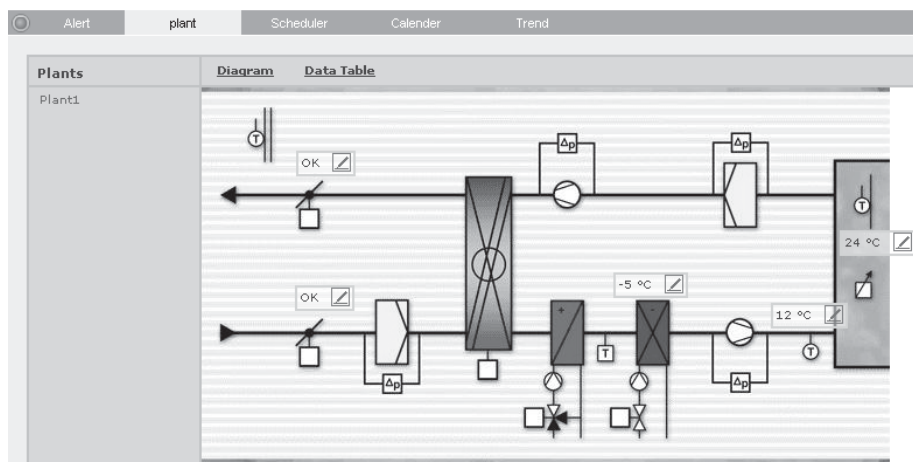
- select plants (plant views)
- view and operate data points

Two views are available for this purpose:

- "Diagram" view
- "Data Table" view

"Diagram" view

The existing plant views can be selected in the "Diagram" view and the data points embedded there can be operated. Example of a plant view with full access rights ("O"):



Information elements and controls

Element	Information / Purpose
Plants	Existing plant views. Click to select the required view (in this case "Plant1").
Data point fields	These show the current states of the data points, e.g. "OK" for the ZL/FL values or "24" °C for the ambient air temperature. Data points with the icon in the data point field can be edited; see the following examples.
Refresh Interval (bottom of the screen)	Dropdown list with the selection: 10 sec / 20 sec / 60 sec / disabled
Slide control (bottom of the screen)	For adjusting the image size within the window. If the image is made larger than the window, then scroll bars appear at the bottom of the screen and on the right hand side. If the required section of the screen has disappeared because of the enlargement, this can be made visible again either using these controls or by means of the mouse pointer in the screen (click and hold).

Data Table "view"

The existing plants can be selected in the "Data Table" view. The table lists the data points according to the "Diagram" view:

Plants	Diagram	Data Table			
Plant1	Name	Value	State	Edit	
	SupplyTmp=PresentValue	13 °C			
	RoomTmp2=PresentValue	24 °C			
	ExtSetpoint.Spv=PresentValue	-5 °C			
	HrecFrstDtctr=PresentValue	OK			
	HumPmpAlm=PresentValue	OK			

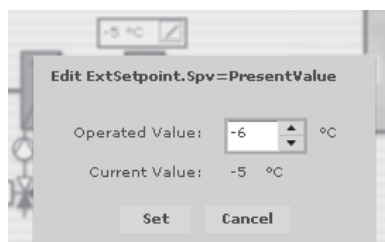
Information elements and controls

Element	Information / Purpose
Plants	Existing plants, click to select the required plant.
Name	Visible data points (selected when configuring the plant view)
Value	Current values of the data points.
State	Current states of the data points (if a status element was assigned while configuring the plant view).
Edit	Adjust set values, change states to be monitored, etc., see below.

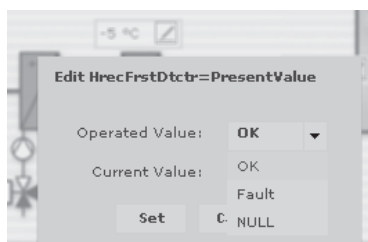
Examples for "Edit"

Here are some examples for the Edit function in the "Diagram" and "Data Table" views:

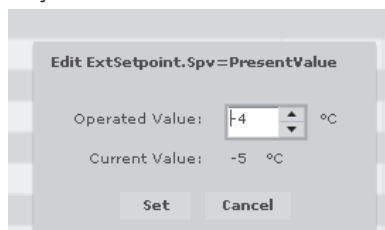
Adjust set value (diagram):



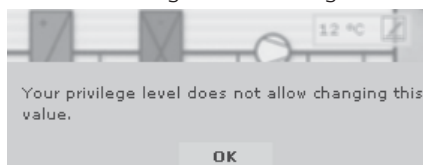
Change monitoring status:



Adjust set value (data table):



No access right for editing:



4.4. Scheduler program

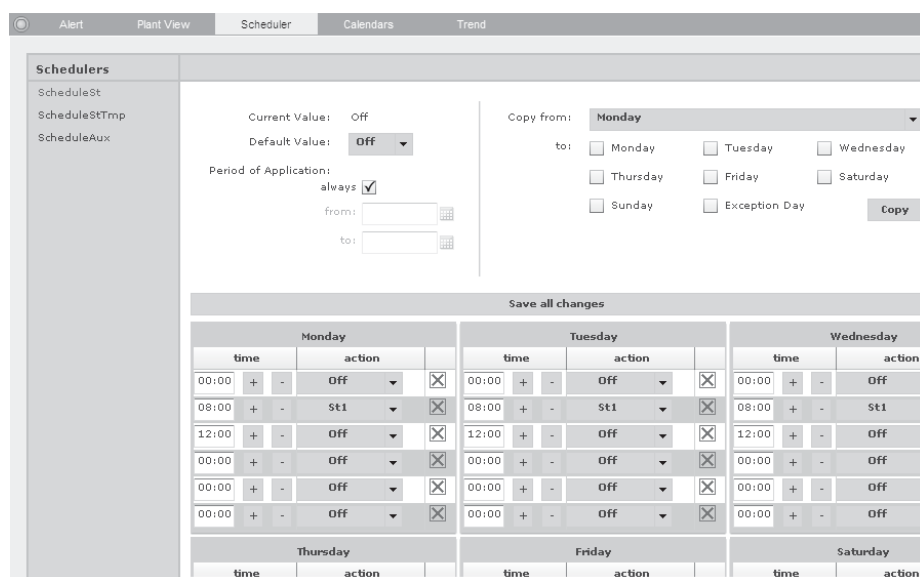
Purpose

When used in conjunction with the calendar, the scheduler allows different scheduling programs to be created to control plants and parts of plant in accordance with the:

- Weekday
- Date
- Time

View

The screenshot shows part of the scheduler:



Information elements and controls

Element	Information / Purpose
"Schedulers" group field	List of the scheduler programs created
Current Value	Current status of the scheduler program
Default Value	Default for the status (Off / On)
Period of Application	Program period (always / date from-to)
Copy from: ... to:	Copy entries for one weekday to another weekday.
Save all changes	Save all the changes made
Weekdays: "Monday", "Tuesday" etc.	Scrolling down means that the screens for all seven days and an exception day can be seen.
Time	Time specification
Action	Choice of the associated action (on, off, level 1 etc.)
	Delete entry

4.5. Calendar

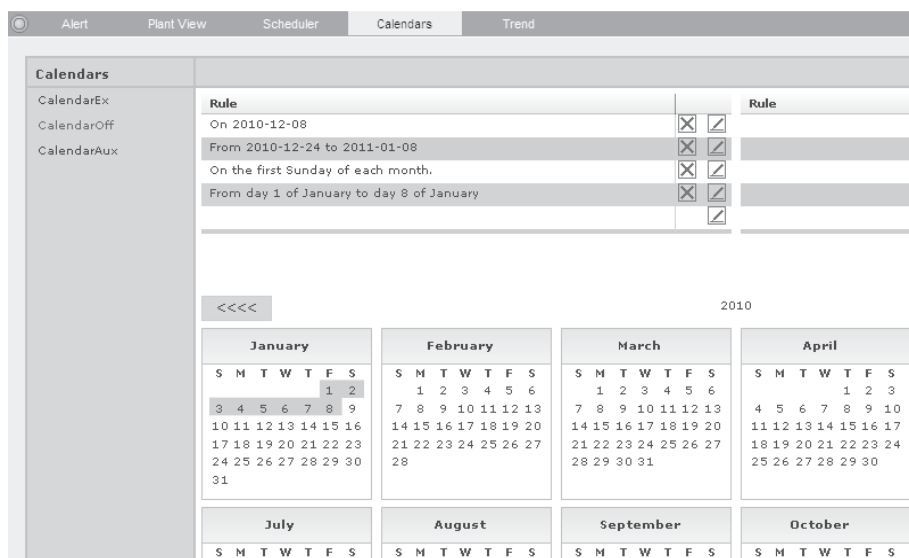
Purpose

When used in conjunction with the scheduler, the calendar allows different scheduling programs to be created to control plants and parts of plants in accordance with the:

- Weekday
- Date
- Time

View

The screenshot shows part of the scheduler:



Information elements and controls

Element	Information / Purpose
"Calendars" group field	List of calendars
Rule	List of the rules created for the exception day (2 columns of 5 entries each possible)
	Delete rule
	Edit rule, see the following input screens.
"<<<<" button	Go to previous year
">>>>" button	Go to next year
Monthly calendar: January, February etc	Scrolling enables all 12 months to be displayed.

Input masks

The following input masks appear when you click the Edit icon in the required line for the rules.

Specific date:

Monthly date:

Edit Scheduler Rule

Specific Date

Monthly Date

Yearly Date

On day 1 of each month.

On the Sunday of each month.

From day 1 to day 1 of each month.

OK Cancel

Annual date:

Edit Scheduler Rule

Specific Date

Monthly Date

Yearly Date

On day 1 of January

On the Sunday of January

From day 1 of January to day 1 of January

OK Cancel

4.6. Trend window

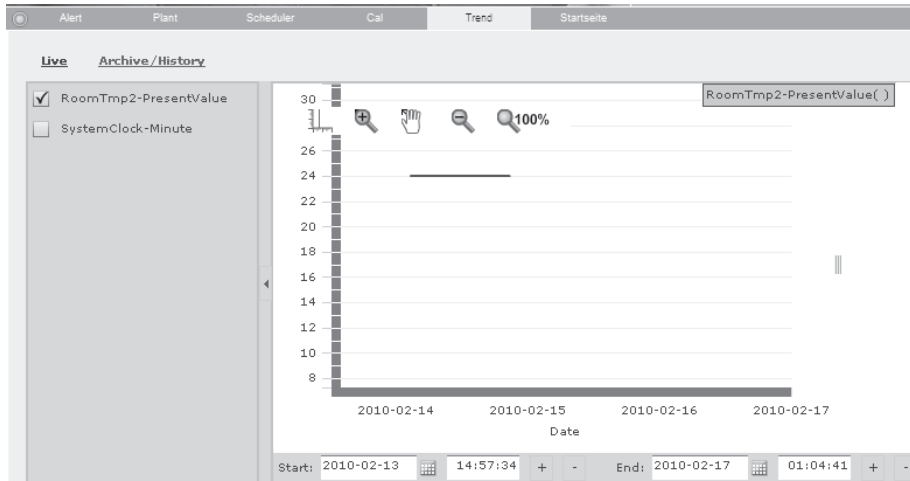
Purpose

The "Trend" tab contains two menu items:

- "Live" window
- "Archive/History window"

"Live" window

Trend recordings can be defined and viewed in the "Live" window:

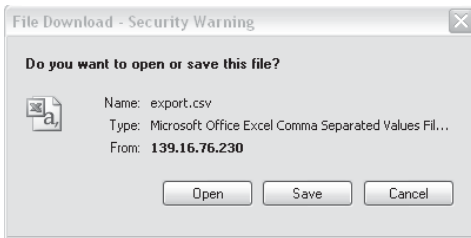


Information elements and controls

Element	Information / Purpose
List box left	Defined trend records
<input type="checkbox"/> <input checked="" type="checkbox"/>	/ Hide / show record
	Display values at the point on the diagram shown with the vertical ruler. Example:
	1. Enlarge the selected area 2. Display the information window for a particular point, see the example above.
	Move the diagram in the window
	Reduce the view in stages by clicking.
	100% view
	Enable / disable data point polling
	Select the polling interval: 1 s / 2 s / 5 s / 10 s / 30 s / 1 min / 2 min / 5 min
	When selected: diagram follows the recording
	Export recorded data in CSV format.

Export CSV

Clicking the **Export CSV** button opens a dialog box of this type:

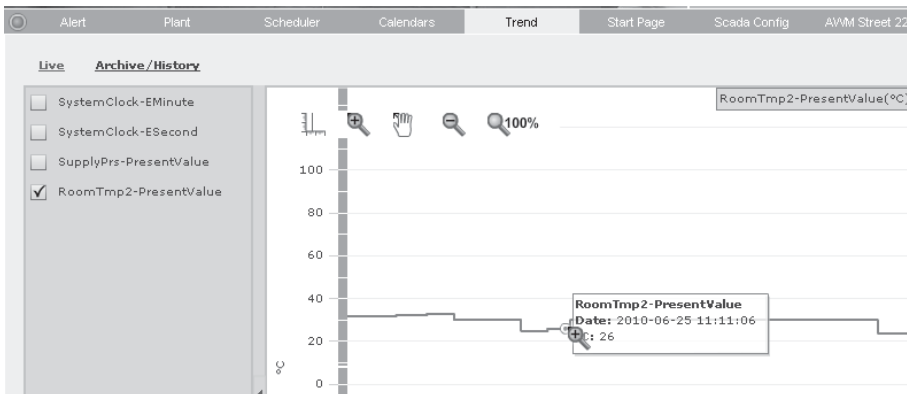


Open button: Opens the file manager to select the destination location.

Save button: Saves the export.csv file under the name entered in the file namer that subsequently opens.

"Archive/History" window

Saved trend records can be displayed in the "Archive/History" window:



Information elements and controls

Element	Information / Purpose
List box left	Saved trend records
	Select the trend record to be displayed.
Toolbar	Same as for the "Live" tab, see the previous page.
Start: input	Enter the starting date and time for the recording to be displayed in the text field or calendar.
End: input	Enter the end date and time for the recording to be displayed in the text field or calendar.
+ / - buttons	Increase or decrease the time by one. The default setting is minutes. However if the cursor is placed in the seconds, minutes or hours then the time is increased or decreased by the relevant unit.
	Export recorded data in CSV format (all data for the relevant recording).





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