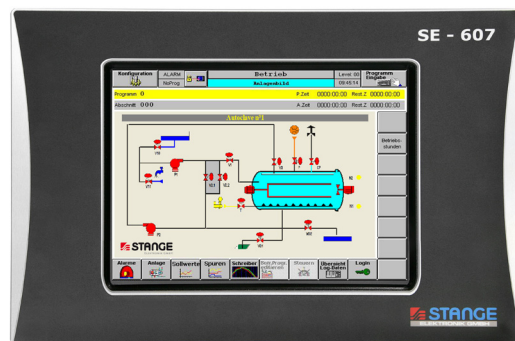
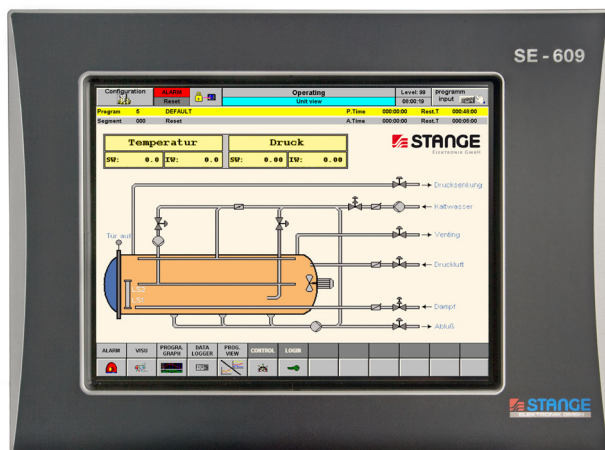


# Industrial Control SE-607 / SE-609

Controller and visualization combined as an automation solution with multitasking PLC (CoDeSys)



## Trend-setting industrial controls for autoclaves

The SE-607/SE-609 controller is equipped with a high-contrast 10,4/15 inch TFT touch display (640x480/1024x768 pixel resolution). A 600MHz fast Pentium based 32bit processor ensures fast signal processing. A user friendly operation is achieved via the clearly arranged control dialogue and touch operating keys. The operating system VxWorks provides an extremely high operational reliability. A IEC61131 PLC (CoDeSys) operates in the control which achieves the performance of a middle hardware PLC. The well-known advantages of CoDeSys such as fast setting, practical and user friendly handling and high performance can be benefited from. All data are stored on a Compact Flash Card (CF).

Field bus communication is made via STANGE remote CAN peripherals, optionally Profibus. The connection to a process control system is made via a TCP/IP interface (100Mbit). The integrated web server makes the operation through remote control possible via the Internet browser.

The requirements of modern furnace engineering have influenced the development of software applications considerably. Up to 50 control zones are processed by the control. The alarm processing stores up to 500 messages

and displays these in the alarm history. The integrated recipe manager enables the creation of a maximum of 250 recipes (programs). The programmer processes up to 50 set values and 64 control tracks.

8 login levels increase the working reliability. The access privileges are defined for configuration and operation. Process visualization and a 32 channel recorder (option) are integrated as well. The provided OPC server allows access to the internal data of the control.

Application fields:

- Food industry
  - Medical technology
  - Glas
  - Rubber, natural rubber
  - Composite materials
  - Textile
- etc.

# Functions

- Real-time operating system VxWorks for extremely high operating safety
- Freely programmable multitasking PLC according to IEC 61131 (CoDeSys)
- Program controller for up to 50 set values and 64 control tracks
- 8 program loop with 9999 repetitions maximum
- Recipe management for up to 250 recipes (programs)
- Up to 50 control zones
- Up to 500 alarms with alarm history
- Auto optimization function for optimal control parameters
- 8 login levels
- Online language switching with unicode language support (Russian, Chinese etc.)
- Freely configurable plant visualization
- Web server: Plant remote operation via Java compatible web browser, identification with user password
- Access to internal controller data by the delivered CoDeSys-OPC-Server
- Multi-programmer for up to 10 units
- Operating set value curve with representation of 3 set values and 4 actual values (configurable) with time bars and zoom function for the run off curve section
- Compact Flash 256 MB for configuration and program data
- Interfaces: COM (RS232/RS422), Ethernet (100MBit), CAN, PS/2 (PC keyboard), VGA, USB
- Remote control via smartphone and tablet (Windows / Android / iOS) by VNC client
- Suitable for any kind of autoclave automation like e.g. steam autoclaves, full-water autoclaves, sprinkling autoclaves, rotation equipment, static autoclaves
- Control and monitoring of processes in an inert gas atmosphere, e.g. nitrogen
- Calculation of F0 values

## Optional

- Profibus DP-master/slave interface
- Printer interface
- USB memory stick
- Batch logging with recorder function, up to 15 loggers for 32 channels
- Modbus TCP / Modbus RTU

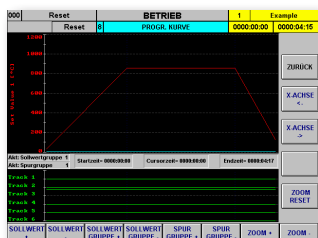
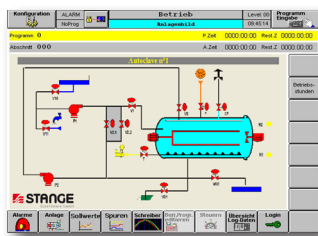
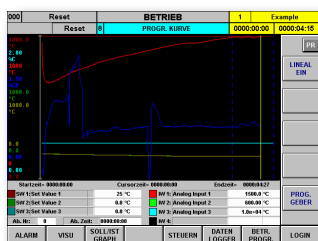
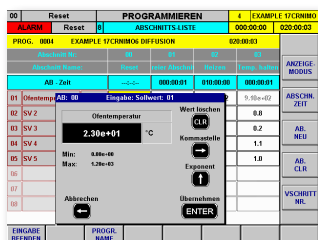
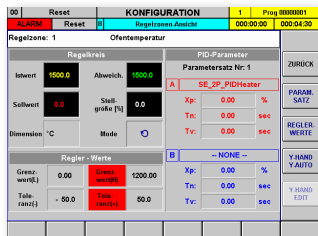
## Technical Data

- Front: Conductive antireflective coated glass
- Operation: Infrarot-Touch
- Protection class front: IP 65
- Protection class back: IP 200
- Power supply: 24 VDC (18 ... 36V)
- Battery back-up: Lithium battery
- Real-time clock (RTC): Date/time
- Time leveling: Manual or over network time server
- Operating temperature: 0 ... 50°C
- Operating system: WindRiver VxWorks
- PLC: IEC 61131 SPS CoDeSys, multitasking capable soft PLC
- Dimension (W x H x D): SE-607: 370 x 260 x 139 mm; SE-609: 462 x 347 x 122 mm
- Weight: SE-607: 4,5 kg; SE-609: 7,1 kg

# Industrial Control SE-607 / SE-609

Controller and visualization combined as an automation solution with multitasking PLC (CoDeSys)

Operation



## Configuration

- Configured with IEC 61131 program CoDeSys (free of charge)
- Online language switching via menu
- Date/time setting
- Configuration of IP address / I/Os
- Display of system settings
- Configuration of data logger / program graph / recorder
- AV correction table (measuring value comparison)
- Settings for automatic batch importing (data storage)
- Configuration of printer interface
- Load / delete configuration files
- Configuration of PID controller with self-optimization function
- 8 operating levels
- Configuration backup via PC
- Completed function modules (controller, programmer, logger etc.) in CoDeSys
- Freely configurable operating interface with ECS-EPAM (based on Excel)
- Changes at operation during operation

## Programs (Recipes)

- Configurable process steps
- 250 programs with up to 200 segments
- Plain text description for programs (up to 30 characters)
- Graphical representation of set value curves and control tracks
- Configurable program loops (8 loops per program)
- Sort, change, copy and delete programs
- Load programs into the operating mode
- Save operating program

## Operation

- Plant overview with plant pictures (configurable)
- Operating set value curve with graphic representation of up to 2 set values (future) and 3 actual values (configurable)
- Plain text alarm display with history memory
- Jump in program with graphic set value curves display
- Complete control zones display
- Programming of an automatic program start
- Numerical and graphical display of set values and tracks
- Manual operation for set values and tracks even during program run
- Auto-optimization of control parameters ("self-tuning")
- Manual operation for the manipulated variable Y ("Y-Man.")
- Representation of actual values, limit values, tolerance- and formula values
- Power failure definition
- Login code input page

# Options

## Batch logging with recorder function

- Batch logging with recorder function for up to 32 channels (digital or analogue) per logger.  
Up to 15 loggers can be started parallel.
- A batch head with up to 20 configurable data fields is stored for each batch
- Alarms occurred in this period are stored for each batch
- Batch storage takes place on a Compact Flash card (industrial grade) with 256MB memory capacity
- Batches can be analyzed with batch management on the device
- Analysis includes zoom functions and scale
- Evaluation software ECS-AW is an option for importing stored batch data via Ethernet for comprehensive data analysis on the PC

# Connection

