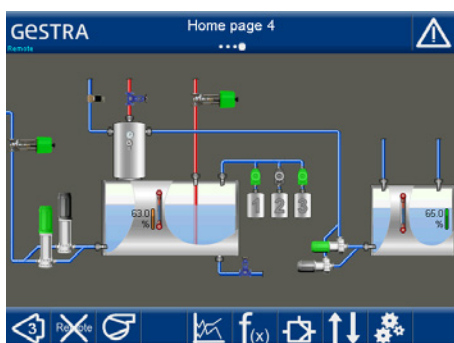# GESTRA®

SPECTOR*control II*

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Control, Display and Operating Panel
SPECTOR*control II*

System description

The SPECTOR*control* is used for controlling, monitoring and displaying. Via an IO module, signals can be processed by the SPECTOR*connect*/*bus* devices, by analogue/digital sensors and actuators.

Some control and operating devices in the system may not be required if the SPECTOR*control* is used.

Via the interfaces, burner control systems can be linked via Modbus and integrated in a control system via Modbus TCP or OPC, or via optional Profibus.

The SPECTOR*control* is operated either directly via the graphic operator panel or remotely.

The SPECTORcontrol offers the following service functions:

- Parameter indication
- Open/closed-loop control functions
- Monitoring SPECTOR*connect*/*bus* devices
- Trend indication
- Indicating and monitoring maintenance intervals
- Presenting accumulated flowrates/steam flowrates
- Indication of the last 512 historic alarms
- Password protection

Function

The SPECTOR*control* is a boiler management system with open/closed-loop control, display and monitoring functions.

The SPECTOR*control* continuously receives and analyses all transferred process data.

The system enables analogue and digital signals to be processed, and allows you to set alarm and switching thresholds for them. These signals can be freely processed in the system. They can be assigned directly to the controllers, for example, or processed via logic and calculation functions, before being emitted once again via an analogue or digital output (IPO model). These signals can therefore be used to accomplish many different tasks. Consequently, far less equipment is required in the control cabinet. All inputs and outputs can be linked, parameters set, actual values viewed and trend data assigned via the touchscreen, with no specialist programming knowledge.

Area of application

- Pressurised steam/superheated steam plants
- Pressurised hot-water plants
- Pressurised flue gas/heat exchanger plants
- Steam regenerators
- Energy data acquisition/analysis
- Turbine control
- Universal controllers, and a great deal more

Technical data

Control, display and operating panel SPECTOR*control*:

- 10.4" VGA IR TFT touchscreen
- 2 x Ethernet 100/1000 Mbps RJ45 (intranet/Modbus TCP/IP/OPC)
- CAN interface
- Modbus RTU RS232 for specific burner connection
- USB ports for importing/exporting data
- Profibus DPS (optional)
- Supply voltage 24 V DC (+/- 20%)
- Max. power consumption 17 W
- IP rating of front IP 65
- Front panel cutout 329 x 230 mm
- Front dimensions 345 x 260 mm
- Service temperature 0..50°C when installed vertically
- Climate 10..90% rel. humidity

Ready to display operating data for maximum:

- 40 digital inputs 24V
- 40 digital outputs/volt-free relays
- 20 analogue inputs (4..20 mA, 10 R..1 K2, 0..10 V, PT100)
- 20 analogue outputs (4..20 mA, 0..10 V)
- 30 CAN sensors

Including software for the functions:

- Display of operating data, incl. dual burner data indication via Modbus RTU for Lamtec or Landis & Staefa
- 5 x 4 trend logs for freely selectable signals
- 10 day/month-accumulated flowrate logs
- 5 steam flowrate calculators (with pressure/temperature compensation)
- 10 calculations, e.g. for multiplying switching values, limit values and setpoints
- 20 logic operations, e.g. for enabling controllers
- 5 weekly timers
- 5 maintenance logs
- Fault log incl. freely configurable collective fault and initial value indications
- Individual start screens thanks to flexible parameterisation

12 integrated, freely customisable controllers with the following functions:

- Continuous controller
- Continuous pump controller
- 3-position stepping controller
- 2-position valve/pump controller
- 3-component controller
- Automatic intermittent blowdown control with pulse repetition
- Dosage controller

With P, PI or PID characteristic, depending on the type of controller, dead zone, soft start, automatic run-time dependent pump switchover and operating position

Controller optimisation via integrated trend logging of actual values, setpoints, internal settings and control points

Control, Display and Operating Panel
SPECTOR*control* II

Notes for planning

CAN devices are connected via the CAN interface. Use a D-sub connector to DIN 41652 as a connecting cable. Use a multi-core, flexible control cable as the supply cable. Use a shielded, multi-core, twisted-pair control cable, e.g. UNI-TRONIC® BUS CAN 2 x 2 x .. mm^2 or RE-2YCYV-fl 2 x 2 x .. mm^2 as the bus line.

Cable length	Number of pairs and wire cross-section [mm^2]
125 m	2 x 2 x 0.34
250 m	2 x 2 x 0.5
335 m	2 x 2 x 0.75

See Installation & Operating Manual for further cable lengths.

How to order
SPECTOR*control* II

SPECTOR*control* II control, display and operating panel:

- 10.4" VGA IR TFT touchscreen
- IP rating of front IP 65
- CompactFlash slot
- Ethernet 100/1000 MBit (intranet/OPC/Modbus TCP/IP)
- CANopen
- Modbus RTU RS232 for specific burner connection
- USB ports
- Incl. SPECTOR*control* II software for displaying operating data
- Accessories: IO terminals, connectors available on request

Standards

- 61000-6-2 Immunity for industrial environments
- 61000-6-3 Emission standard for residential, commercial and light-industrial environments

Overview

Fig. 1

Dimensions

Fig. 2   SPECTOR*control* 10.4"

Please note our terms of sale and delivery.

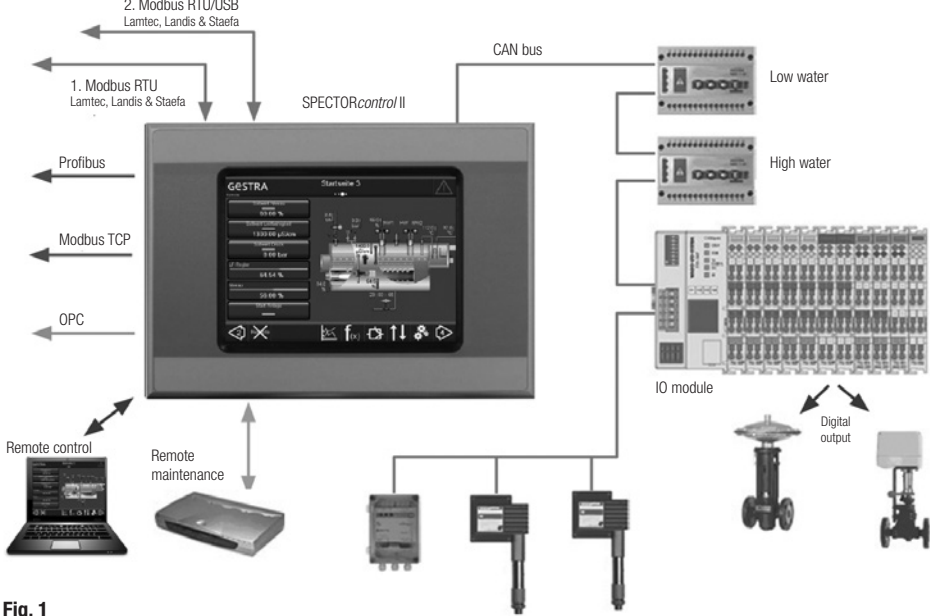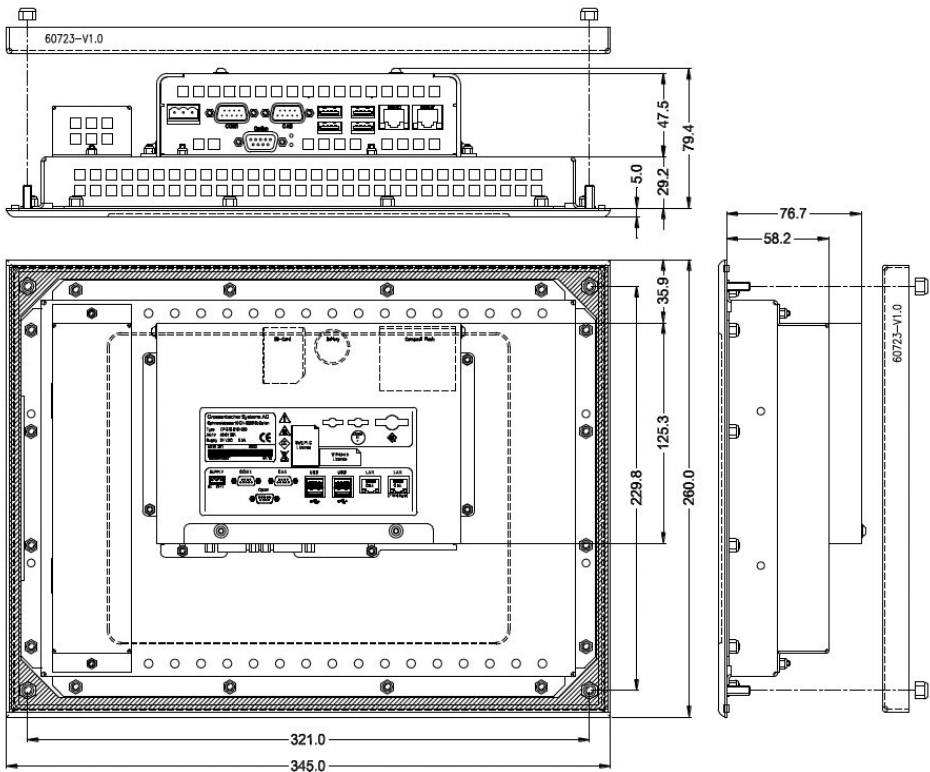# GESTRA AG

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