



SPECTORcontrol II



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Control, Display & Operating Panel **SPECTORcontrol II**

Description

SPECTORcontrol is designed for controlling, monitoring, viewing and adjusting CANopen equipment, actuators and sensors.

Some control and operating devices within the bus system may not be necessary if SPECTORcontrol is used.

The interfaces enable remote operation and integration of burner control systems (Modbus) as well as setting up a process control level (Profibus).

SPECTORcontrol uses the CANopen protocol and is ready to receive all data transferred within a CAN bus system.

SPECTORcontrol can be viewed and operated by means of the graphical operator panel with IR touch screen or, if remote operation is desired, via Intranet / Internet.

SPECTORcontrol offers the following service functions:

- Parameter indication
- Trend indication
- Indication and monitoring of maintenance intervals
- Representation of accumulated quantities
- Indication of the last 4096 alarm messages (history function)
- Remote operation via Intranet / Internet (TCP/IP)
- Password protection
- Control & monitoring functions

Function

SPECTORcontrol is an operating, indicating and control device for boiler management system.

The sensors and SPECTORcontrol use the CANopen protocol. At regular intervals the CANopen devices send data telegrams via CAN bus. The data transfer is in accordance with ISO11898.

All transferred process data are continuously received and evaluated by SPECTORcontrol. If a connected CANopen device interrupts the data transmitting cycle, an alarm message is given and a visual signal is indicated by the display.

The system can process digital and analog signals and allows you to establish alarm and switching limits for them. These signals can be assigned directly to the control units or processed further by using the functions Logic and Calculations. After that the signals are outputted via a digital or analog output (IPO model). These signals can be used to accomplish various switching tasks. As a consequence far less equipment is required in the control cabinet. No special programming knowledge is required. All inputs and outputs can be linked, parameters set, actual values viewed and trend data allocated via touchscreen.

Directives and Standards

LV (Low Voltage) Directive and EMC (Electromagnetic Compatibility)

The equipment meets the requirements of the Low Voltage Directive 2014/35/EC and the EMC Directive 2014/30/EC.

ATEX (Atmosphere Explosible)

According to the European Directive 2014/34/EC the equipment must not be used in potentially explosive areas.

Technical Data

Control, Display & Operating Panel

SPECTORcontrol:

10.4" VGA IR Touch TFT, 640 x 480
 Front protection IP 65
 CompactFlash slot
 Ethernet 100/1000 MBit (Intranet / OPC / Modbus TCP/IP)
 CANopen
 Modbus RTU RS232 for special burner hook-up
 USB interfaces
 Profibus DP (optional) with SUBCON Plus Profibus connector (optional)

Including bus modules (upon request) for:

8 digital inputs 24 V
 8 digital outputs relay/volt-free
 2 analog inputs (4..20 mA, 10R..1K2, 0..10V, PT100)
 2 analog outputs (4..20 mA, 0..10V)
 1 CAN Fieldbus coupler 24 V DC
 1 internal system supply module with bus power supply
 1 internal system supply module
 1 potential terminal block

Including software tools for:

Viewing operating data and burner data via Modbus RTU for Lamtec or Landis & Staefa

5 x 3 trend logs for recording freely selectable input / output signals

10 cumulative daily/monthly quantity protocols

5 steam flowrate measurements (pressure/temperature compensated)

10 calculations e. g. for multiplying switching / limit / setpoint values

20 logic operations e. g. for enabling the controller

5 timers

5 maintenance protocols

Malfunction list including freely adjustable collective malfunction messages and first messages

12 integrated and freely customizable controllers with the following functions:

1. Continuous controller
2. Continuous pump controller
3. 3-position stepping controller
4. 2-position controller valve/pumps
5. 3-element controller
6. Automatic intermittent blowdown control with pulse repetition
7. Dosage controller

Depends on type of controller (with P, PI or PID characteristic), dead zone, soft start, automatic pump switch-over as a function of run time, operating position.

Controller optimization via integrated trend logging.

Software prepared for a maximum of:

40 digital inputs / outputs

20 analog inputs / outputs

30 CAN sensors

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CAN bus

All equipment groups (for level, conductivity and temperature control as well as bus modules) are interconnected via CAN bus. The data exchange between the equipment groups is effected by means of a CAN bus according to DIN ISO 11898 using the CANopen protocol. All devices have an electronic address - the node ID. The four-core bus cable serves as power supply and data highway for high-speed data exchange. The operating and display unit SPECTORcontrol has already been configured at our works for operation with other GESTRA components and can be used straight away.

Important Notes

The connection to the CANopen equipment is implemented via the CAN interface. A Sub-D plug connector in accordance with DIN 41652 must be used as connecting cable. Use a multi-core flexible control cable as supply line. Note that screened multi-cored twisted-pair control cable is required as Bus line, e. g. UNITRONIC® BUS CAN 2 x 2 x ...mm² or RE-2YCYV-fl 2 x 2 x ...mm².

Cable length	Number of pairs and conductor size [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

Other cable lengths available. For more information see installation and operating instructions.

Order & Enquiry Specification

GESTRA Operating & Display Unit SPECTORcontrol

Ancillaries

Siemens power supply unit 230V / 24V DC 5A

CANbus axial D-Sub connector

Adapter DB 9 female/RJ45 8poles RS-232 with RJ 45 patch cable cat. 5e-SSTP / 1m, red (for Modbus burner communication)

Overview

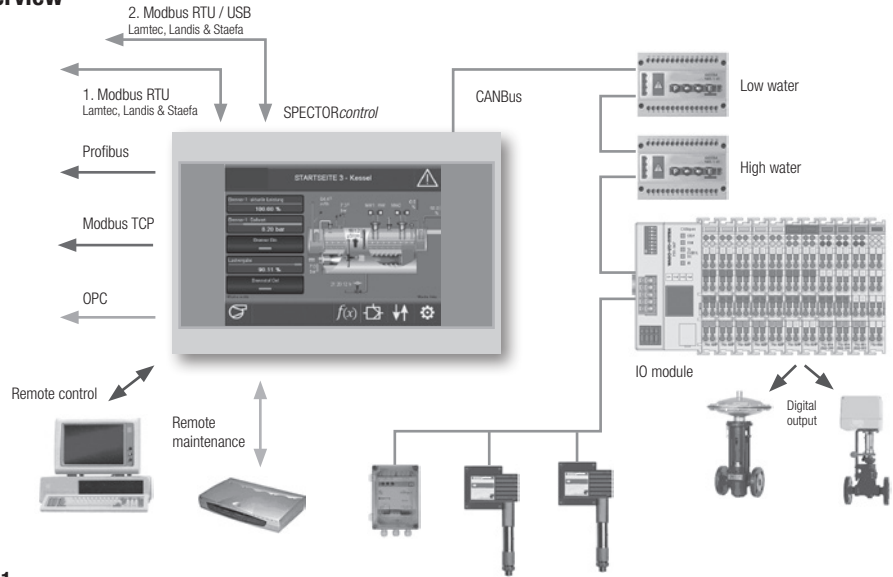


Fig. 1

Dimensions

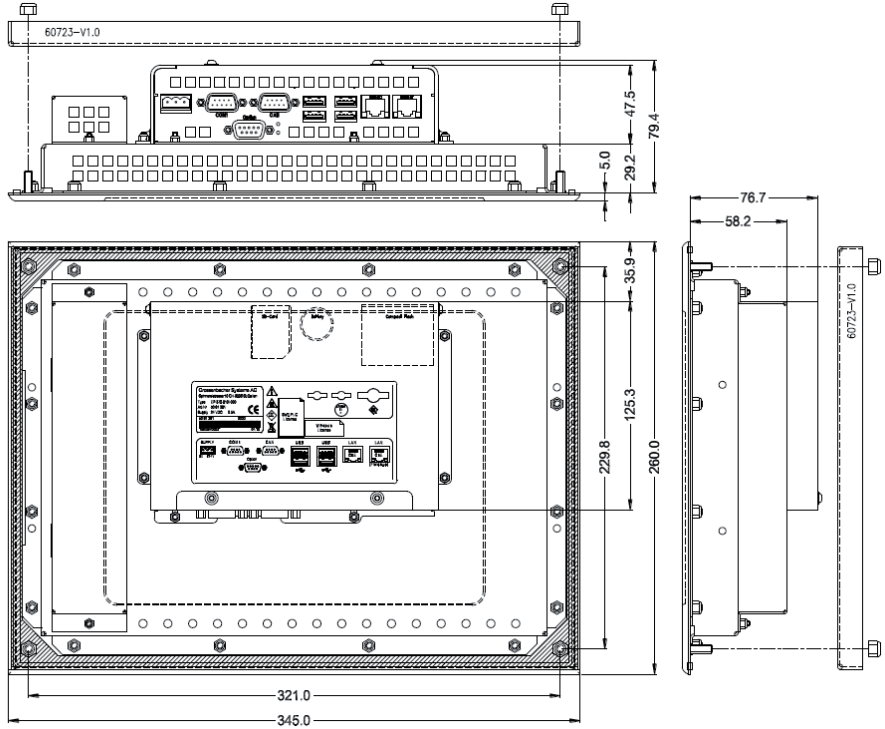


Fig. 2 SPECTORcontrol GPC/1.4"

Supply in accordance with our general terms of business.

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