

vario BT

Graphic operating terminal for modular controller system

Operating terminal with convenient user interface

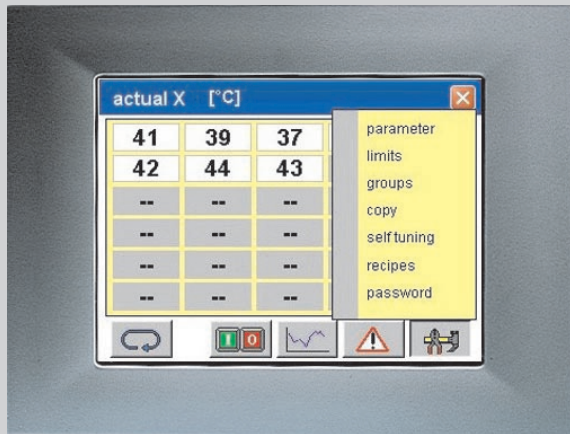
Comprehensive range of functions for operating up to 30 control zones

Connection of vario via Modbus interface

High-contrast STN LC colour display

Touch-screen operation

Ethernet interface



FEATURES

- ⊕ Graphical touch-screen operation
- ⊕ Simple access for 4...30 control loops
- ⊕ Overall surveys
- ⊕ Grouped operation of control loops
- ⊕ Operating Level for process values
- ⊕ Configuration Level for control parameters and configuration data
- ⊕ Alarm processing (limit values, sensor, heating current, etc.)
- ⊕ Online trend display
- ⊕ Recipe management
- ⊕ 3-level password protection
- ⊕ Language selection
- ⊕ Direct connection of the vario via RS 485 or RS 232 interface
- ⊕ Network access to recipes (Ethernet TCP/IP)
- ⊕ Data access via optional OPC server
- ⊕ Optional web server for remote diagnostics and operation

APPLICATIONS

- Plastics processing
- Hot runners
- Heated molds
- Textile machines
- Packaging machines
- Semiconductor production
- Furnaces
- Driers
- Climatic chambers
- Thermal treatments
- Burners & boilers

- Medical equipments
- Sterilisers

DESCRIPTION

Fully graphical operating terminal
The operating terminal **vario BT** is intended for convenient, stand-alone operation of the **vario** controller system. This enables the multi-channel system to be operated as several single-loop controllers without the need of a superordinate PLC.

The terminal is connected to the controller's Modbus coupler via an RS 485 interface. Alternatively, communication can be switched over to parallel operation via the controller's RS 232 Engineering interface.

By means of an Ethernet interface, the operating terminal can be linked into existing networks. Recipe data can be transmitted from or to the terminal. Similarly, an external OPC server can be used for access to process data. An additional possibility for data access is provided by an optional web server in the **vario BT**. The user interface made available via a network in the form of HTML pages. By means of a standard browser, operation & display can then be implemented with a PC.

TOUCH PANEL

The **vario BT** has been designed as an extremely compact unit for panel mounting.

The computing core consists of a 'low power' RISC processor, which operates without cooling fan. Flash modules are used as program memory. This design makes the terminal's hardware extremely robust and gives it a long service life.

The full-colour graphic display has a resolution of 320 x 240 pixels (1/4 VGA). Moreover, the display is featured by especially good readability and brightness as well as a durable backlighting element.

The integrated resistive 'touch' feature permits direct controller operation via the display screen. No further operating controls are required.

USER INTERFACE

The terminal **vario BT** comes with a user interface for operating up to 30 control zones in a **vario** control system. The number of control loops and the active interfaces can be configured online.

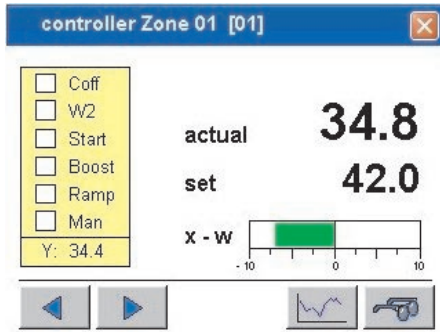
Handling of the **vario BT** is designed completely for 'touch screen' operation. All operating and functional data are selected on-screen with the help of context-related menus.

The following operating & functional display screens are available:

Operating Level

Overall survey

Display of up to 30 control loops on one page, display of one value per control loop, colour-change of the values as a function of the limit values. Switchover of the displayed values between process value, setpoint, and heating current.



Controller settings

Individual adjustments for every control zone, plus additional functions (On/Off, W/W2, start-up, etc.).

Trend display

Online trend display: setpoint versus process value on one screen page.

Alarm page

Currently active alarms with time stamp and alarm messages in plain text.

Language selection

max. 3 languages (English / German / French/Italian)

Operator access

3 password levels:

0 = no changes possible

1 = only entries in the Operating Level permitted

2 = full access

Function Level

Control parameters

Tabular overview of control parameters and other function parameter for one controller.

Limit values

Tabular overview for one relative tolerance band, two absolute limit values, and the minimum heating current value.

Optimizing page

Page for starting / selecting the self-tuning function.

Group assignment

Definition of controller groups for grouped operation.

Copying of settings

Copying the settings (operating values and parameters) from one controller to one or several other controllers.

Recipes

Reading / writing of pre-defined recipes.

Device configuration (setup)

Selection of the interface.

Number of connected control loops.

Description of the control loops.

TECHNICAL DATA VARIO BT

PROCESSOR

CPU: Intel StrongArm 1110 206 MHz
Passive cooling
32 Mbyte on-board RAM
16 Mbyte on-board Flash memory

DISPLAY

5,7-inch FSTN LC colour display, QVGA, 320 x 240 pixel resolution, 256 colours, 165 cd/sqm, resistive touch

INTERFACES

Port for vario Modbus coupler

Type: RS 485, 9-pin Sub-D connector.
Max. cable length: 1000 m

Port for vario BlueControl interface

Type: V.24 / RS 232, 9-pin Sub-D connector.
Max. cable length: 3 m

Network

Ethernet interface (10 Base-T)

External operation

Two PS2 ports (mouse, keyboard)

Update interface

1 x USB client

Memory expansion

1 x Compact Flash card type I

POWER SUPPLY

Operating voltage: 24 V DC \leq 12W
Protection class III (protective low voltage)

ENVIRONMENTAL CONDITIONS

Permissible temperatures
For operation: 0...50°C
For storage / transport: -20...60 °C

Climatic category

Relative humidity: 10...95 % at 40 °C, no condensation.

INFLUENCING FACTORS

Supply voltage

No effect. No loss of configuration data in case of a power failure (Flash PROM storage).

Vibration test

Sinusoidal oscillations according to DIN EN 60 068-2-6.

Test: 2g, 1 h along each axis

Shock test

According to DIN EN 60 068-2-27.

Test: 10g during 11 ms, half sine wave, three shocks along each axis and orientation.

ELECTROMAGNETIC COMPATIBILITY

Electromagnetic immunity

To EN 50 082-2

All interface cables must be screened.

Electromagnetic radiation

To EN 50 081-2

Radiation from housing: Class A in accordance with EN 55 011

GENERAL

Housing

Dimensions: 195 x 148 x 40 mm (WxHxD)

Panel cutout: 188 x 141 mm

Weight

approx. 0,8 kg

Protection mode

Front: IP 65

Rear panel: IP 20

Safety tests

Complies with EN 61 010-1 (VDE 0411-1):

Overvoltage category II

Contamination class 2

Working voltage range 50 V

Protection class III

CE marking

The unit meets the European requirements regarding „Electromagnetic Compatibility“ and „Low-voltage equipment“.

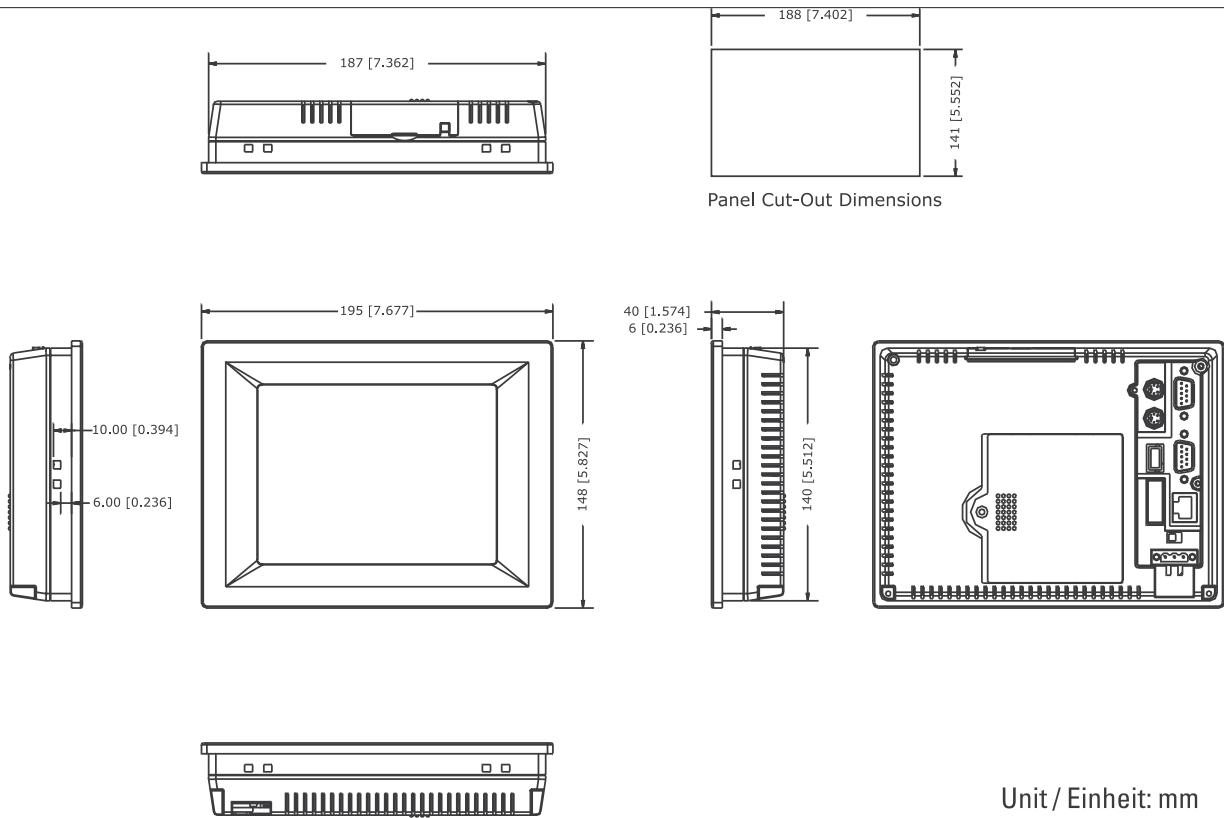
Standard accessories

Connector for supply voltage

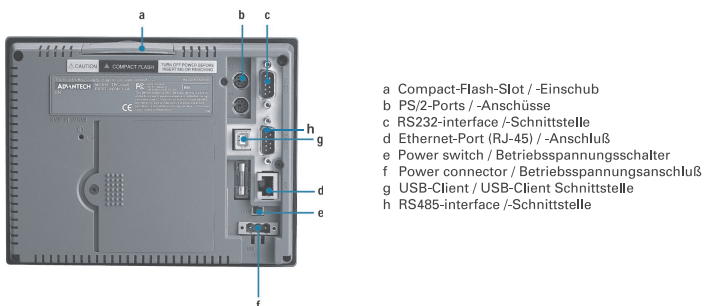
Keyboard adapter

Panel mounting elements

Dimensions



Rear vario BT



Description	Order no.	Function
vario BT	KSVC-111-00151	Fully graphical touch-screen operating terminal with software package for vario with Modbus interface.
vario BT/WEB	<i>on request</i>	Fully graphical touch-screen operating terminal with software package for vario with Modbus interface, plus web server for decentralized operation and display via a browser.
OPC / vario BT	<i>on request</i>	OPC server for data exchange between PC and vario BT.
Modbus cable RS 485	KSVC-119-00001	RS 485 connecting cable between vario BT and Modbus coupler VARIO BK MOD, length approx. 5 m.
Modbus cable RS232	KSVC-119-00011	RS232 connecting cable between vario BT (COM1) and Engineering-Port VARIO controller modul. Length approx. 3m

Your local representative:

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