# BT 800

Operating & display terminal for KS 800 multi-controller
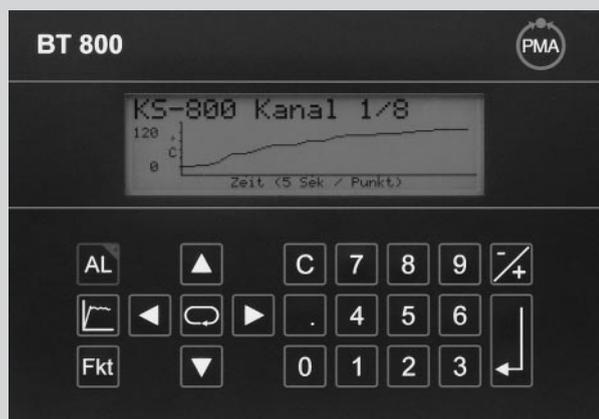
Operating terminal with ready-to-use programming

Back-lit LC display with text and graphics functions

Connection of max. five KS 800 via CAN/CAN open bus interface

Software update in Flash-EPROM

PROFILE

The operating and display terminal BT 800 is a multi-functional input/output device for mounting in control panels and cabinets. The universal unit is designed around a powerful 16-bit controller with ready-to-use software. If required, the program can be adapted to specific user requirements. This is done very easily via a service interface.

For visualization, the terminal has a high-contrast LC display with 8 lines of 40 characters each, and a graphics resolution of 240 x 64 pixels. Back lighting of the display is provided by a long-life LED unit.

22 short-stroke keys behind a front foil are available for operation, whereby their functions are pre-configured in the controller program.

Communication with the KS 800 multi-controllers is done via the CAN/CAN open interface (2.0B Full/Basic).

The service interface meets the RS 232 standard, and can be used to download new configuration software into the Flash-EPROM, e.g. with customer-specific versions or an update.

Operational software

The BT 800 is supplied ready-to-use with an operational software that is pre-configured for max. 5 connected KS 800 controllers. Operation of the connected KS 800's is menu-guided and divided into Operation, Parameter, and Configuration Levels, similar to the PMA single-loop controllers.

Display of the operating pages is in a tabular form, whereby 4 control zones are shown in each display. The displays for the other zones are called simply by paging up or down, as required.

Apart from the numeric display, the process values can be logged graphically as trend curves.

TECHNICAL DATA

Controller
Type: SAB 80C167, 20 MHz

Program memory
128 kbyte Flash-EPROM

Display
Supertwist graphic display with 8 lines of 40 characters each, a resolution of 240 x 64 pixels, and backlighting with LEDs. Contrast is adjustable.

Interfaces

CANbus interface
To ISO/DIS11898, 1 Mbit/s, 9-pin D-type connector with locking screws.

Service interface
RS 232, 19 200 bits/s, 9-pin D-type connector with locking screws.

POWER SUPPLY

24 VAC; –15%...+20%; 48..62Hz, or 18...36 VDC
Power consumption: approx. 5 W
Protection class III (protective low voltage).
Connections: Phoenix terminals, type FRONT-MSTB 2,5/2-ST-5,08

ENVIRONMENTAL CONDITIONS

Permissible temperatures
For specified accuracy: 0...45 °C
Operation: 0...50 °C
Storage and transport: -20...70 °C

Climatic category
KUF to DIN 40 040
Relative humidity: ≦85% yearly
average, no condensation

INFLUENCING FACTORS

Shock and vibration

Vibration test Fc
to DIN 60068-2-6 (5...50 Hz)
Unit in operation: 1g or 0,075 mm
Unit not in operation: 1,5g or 0,15 mm

Shock test Ea
to DIN IEC 60068-2-27 (15g, 11 ms)

ELECTROMAGNETIC COMPATIBILITY

ELECTROMAGNETIC IMMUNITY
(complies with EN 50 082-2)

Electrostatic discharge
Test to IEC 801-2
Air discharge: 8 kV
Contact discharge: 4 kV

High-frequency interference
Test to IEC 801-3 (ENV 50 140)
Frequency: 80...1000 MHz, 10 V/m

Fast pulse trains (burst)
Test to IEC 801-4
2 kV applied to leads for supply voltage
and signal leads

ELECTROMAGNETIC RADIATION
(complies with EN 50 081-2)

Frontplate with foil and rubber seal

Mounting panel

Protective cover

Mounting angle
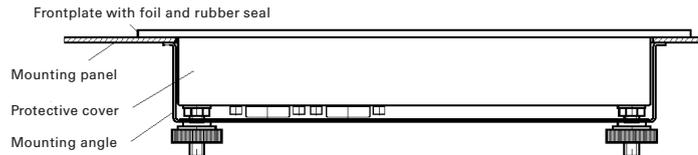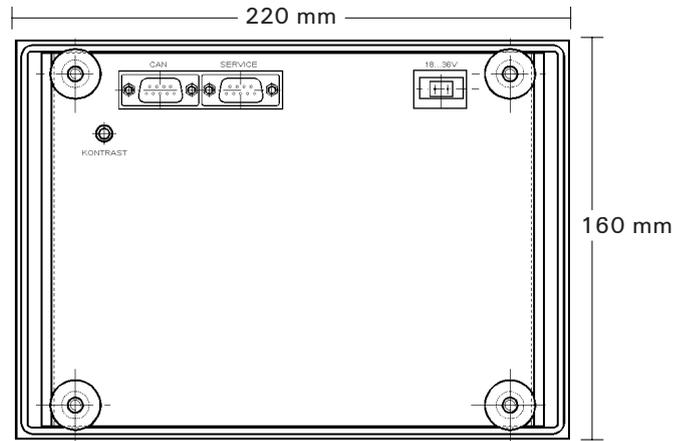
GENERAL

Housing
Front dimensions: 220 x 160 mm
Dimensions of rear
cover: 188 x 148 mm
Panel cut-out: 190 x 150 mm
Depth: 47,5 mm

Protection mode
DIN 40050

Front: IP65

Rear cover: IP 20

CE-marking
Fulfils the European Directives for
electromagnetic compatibility and low
voltage.

Electrical safety
Tested to IEC 348 (VDE 0411)
Protection class III (protective low
voltage)

Mounting method
Fitted in a panel cut-out with rear cover
plate

Weight: approx. 1,2 kg

Accessories
Operating instructions

ORDERING DATA

Description	Order no.
BT 800 CAN Operation & display terminal (CANopen)	**9407 800 60001**

ACCESSORIES

Description	Order no.
CANbus termination resistor with plug	**9407 800 90021**
CANbus cable with T-connector for connecting the BT 800 to a KS 800, standard length 5 m	**9407 800 90031**
CANbus cable for connecting CANbus modules, standard length 5 m	**9407 800 90041**

Your local representative: