

FEATURES

- *Communication via Profibus-DP*
9,6 kBaud to 12 MBaud
- *front side slave address adjustment*
- *4 digital inputs and outputs*
- *Several functional modules*
- *Pluggable screw clamps*
- *Galvanic 3-way isolation*



FUNCTION

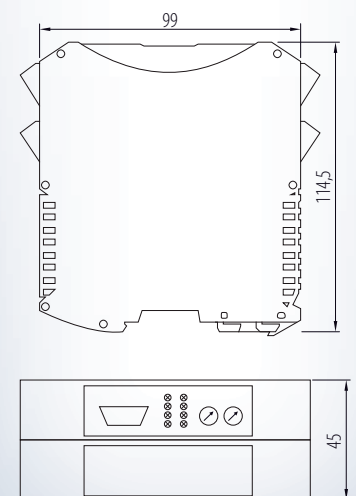
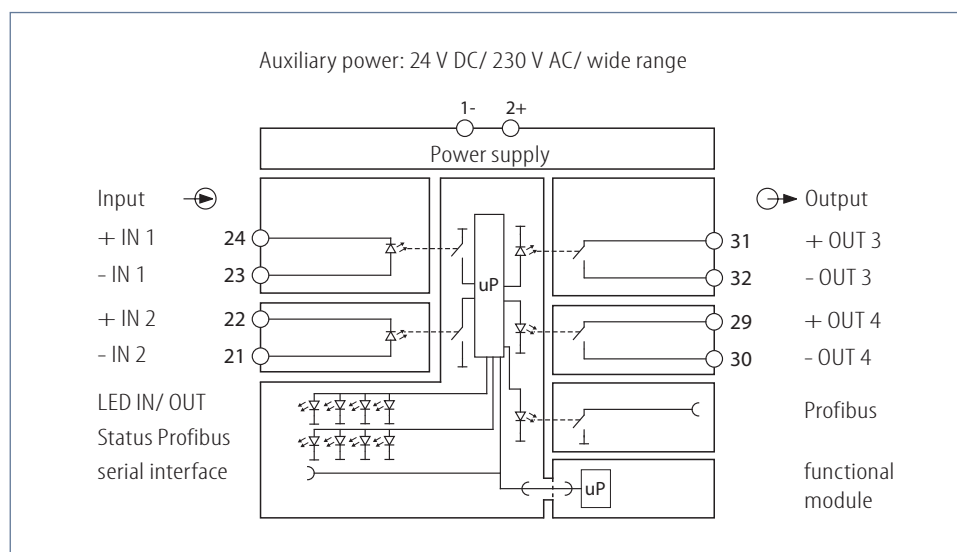
The functional modules

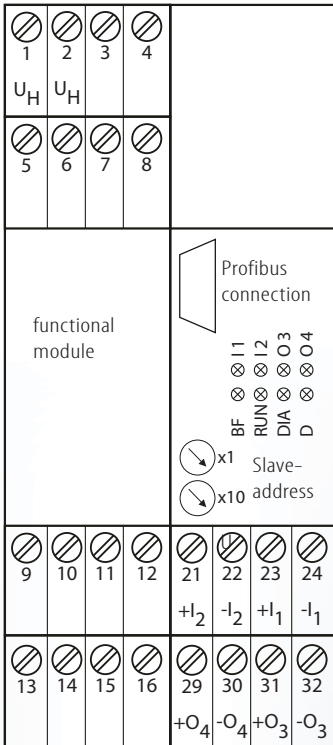
- Isolating amplifier
- Limit switch
- Temperature measuring transducer
- AC current transducer
- AC voltage transducer

can be used for the direct coupling to a Profibus-DP network, which is being used in the plant and machine construction. With this Profibus interface an easy connection to a modern control system is possible.

At the front side are LEDs for the diagnostics of the Profibus-DP communication and a 9-pole Profibus connection. Each module has 2 digital inputs and 2 digital outputs (optocoupler). Those can be read in and display by the Profibus. The state of the inputs and outputs are indicated by LEDs. In case of a Profibus failure the modular built-up ensures that the functional module is still operating.

The Relays from the BP-GSPS2.00Gxx are alternatively controllable from the Profibus. Then the limit switch function is not working.





Input:

optocoupler: control voltage: 24 V DC
 connection I1 (IN 1): terminal: 24 -, 23 +
 connection I2 (IN 2): terminal: 22 -, 21 +

Output:

optocoupler: max. 24 V DC/ 20 mA resistant
 connection O3 (OUT 3): terminal: 32 -, 31 +
 connection O4 (OUT 4): terminal: 30 -, 29 +

Adjustment:

Data mapping Profibus data - module data:

Unit	Byte D (OUT)								Byte C (IN)								Byte B (IN)	Byte A (IN)
	Bit bus	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1		
BP-STV 2.00 GWIO	OUT 4	OUT 3								IN 2	IN 1						Turn switch 0...F	Input value in 0,01 % 0...10000 \triangleq 0...100,00 %
BP-GSPS 2.00 G(DC)IO	OUT 4	OUT 3				Relay B	Relay A	0-local/1-bus		IN 2	IN 1			Relay C	Relay B	Relay A	Input value in 0,1 % 0...1000 \triangleq 0...100,0 %	
BP-MU 1.00 GWIO	OUT 4	OUT 3								IN 2	IN 1		limits fail	sensor fail	Relay B	Relay A	Input value in 0,1 °C e.g. 104 \triangleq 10,4 °C	
BP-UW 13.00 GWIO	OUT 4	OUT 3								IN 2	IN 1				Relay 1		Input value in 0,01 % 0...10000 \triangleq 0...100,00 %	
BP-UW 13.01 GWIO	OUT 4	OUT 3								IN 2	IN 1						Input value in 0,01 % 0...10000 \triangleq 0...100,00 %	

Measuring ranges and parameterization of the functional modules are adjustable in parameter data by KALIB-Software. You need a PC and the interface adapter USB2 with KALIB-Software.

Display:

LED BF: red, active Profibus failure
 LED RUN: green, active operating mode display
 LED DIA: red, active Profibus diagnostics failure
 LED D: green, active data exchange with functional modul
 LED I1,I2,O3,O4: red, active IN 1, IN 2, OUT 3, OUT 4 active

Environmental conditions:

Storage temperature: -40...+70 °C
 Operating temperature: 0...55 °C
 Isolation voltage:
 4 kV eff. 1 sec. auxiliary voltage
 500 V eff. 1 sec. Profibus

Auxiliary power:

24 V DC/ 230 V AC/ wide range:
 see functional modules datasheets
 Influence of auxiliary power: < 0,1 %

Characteristics of transmission:

Field bus: Profibus DP
 Transfer rate: 9,6 kBit/s...12 MBit/s
 Min. slave interval: 2 msec.
 Field bus connection: 9pol. Sub D connector
 Addressing: 0...99 by turn-switch
 The current GSD file and an example for a S7 is available on our website www.schuhmann-messtechnik.de
 Functional module: see datasheet of functional module

Directive:

EMC Directive: 2004/108/EC*
 Low Voltage Directive: 2006/95/EC
 *minimum deviations possible during HF-radiation influence

Mounting details:

Housing for top hat rail
 Type of protection: IP 40 Housing
 IP 20 screw clamps
 Rail-mounting fixed according to EN 50022-35 x 6,2 mm
 Width: 45 mm
 Weight: 300 g
 Material: Polyamide PA
 Flammability class: V0 (UL94)
 Approval: CE
 Connection: screw clamps
 0,08...3,3 mm²

For safety reasons we recommend to mount the housing for top hat rail with a distance of approx. 5 mm to each other. Please check switch position before initial operation!

Ordering information:

Accessories: USB2 with KALIB-Software

Type: BP-STV 2.00 GWIO widerange
 BP-GSPS 2.00 G(DC)IO 230 V AC (24 V DC)
 BP-MU 1.00 GWIO widerange
 BP-UW 13.00 GWIO widerange
 BP-UW 13.01 GWIO widerange