CAMILLE BAUER

COMPACT TRANSDUCERS FOR HEAVY CURRENT VARIABLES

DIN RAIL TOP-HAT RAIL-MOUNTED DEVICES FOR MEASUREMENTS IN HEAVY CURRENT SYSTEMS

SIRAX SERIES OF MEASURING TRANSDUCERS

SIRAX BT5100 ▪ SIRAX BT5200 ▪ SIRAX BT5300 ▪ SIRAX BT5400

DIN rail top-hat rail-mounted devices for measurements in heavy current systems

Camille Bauer Metrawatt offers a wide range of high-quality measuring instruments for all tasks in heavy current systems.
With our DIN rail top-hat rail-mounted devices of the SIRAX series, we complement the portfolio of unifunctional measuring transducers for a very good price-performance ratio.
These devices have the basic functionalities of a measuring transducer and are used as cost-effective standard solutions for safe acquisition of a measured variable in a one-phase or three-phase heavy current system.
They convert a heavy current variable such as current, voltage, frequency or power, respectively, into a low-voltage signal (current or voltage).
The devices feature an LCD display and may be programmed by the buttons on-site or decalntrally via RS485 Modbus RTU and the CB-Configurator software. In addition, the measured values may be visualised, stored and evaluated via SMARTCOLLECT. The SIRAX transducer series is designed for universal use in industrial machines and plants of automation and energy engineering.

COMPACT

Compact and robust housing

Measuring input for a measured variable (voltage, current, frequency or power)

On-site programming via two push buttons

Password protection

COMMUNICATIVE

Clear representation of measured data via LCD display with backlit

Two configurable outputs

RS485 interface with Modbus RTU

Software for configuration, data management and visualization

RELIABLE

Accuracy class 0.2

High quality guarantees plant safety

3 years of warranty

TECHNICAL DATA

	BT5100	BT5200
Type	Voltage	Current
Connection types	One-phase	One-phase
INPUTS		
Nominal voltage [U_N]	57...500 V	–
Voltage converter primary value [PT]	57...400 kV	–
Nominal current [I_N]	–	1...5 A
Current transformer primary value [CT]	–	1...9999 A
Nominal frequency	45...65 Hz	45...65 Hz
Power consumption	< 0.6 VA	< 0.2 VA
Overload capability	1.2 x U_N permanent 2 x U_N, 10x1 s, 10 min.	1.2 x I_N permanent 10 x I_N, 5x3 s, 5 min. 50 x I_N, 1x1 s, 1 h
POWER SUPPLY	60...300 V AC/DC ±5 %	60...300 V AC/DC ±5 %
MEASUREMENT UNCERTAINTY		
Measurement uncertainty	0,. x C	0.2 x C
Measurement uncertainty phase angle, power factor	–	–
ANALOG OUTPUTS		
Linearisation	Linear / kinked	Linear / kinked
Range	0...20 mA / 4...20 mA or 0...10 V	0...20 mA / 4...20 mA or 0...10 V
COMMUNICATION	Standard RS485: Modbus/RTU	Standard RS485: Modbus/RTU
ENVIRONMENTAL CONDITIONS		
Operating temperature	0 ... 23 ... 45 °C	0 ... 23 ... 45 °C
Storage temperature	-40...70 °C	-40...70 °C
Temperature influence	± 0.2% / 10 °C	± 0.2% / 10 °C
Relative humidity	≤ 75%	≤ 75%
Operating altitude	≤ 2000 m above sea level	≤ 2000 m above sea level
SAFETY		
Protection class	II (protection insulation acc. to EN61010)	II (protection insulation acc. to EN61010)
Pollution degree	2	2
Measuring category	CATIII	CATIII
Protection according to EN 60529	IP40 housing, IP20 terminals	IP40 housing, IP20 terminals
MECHANICAL PROPERTIES		
Display	LCD	LCD
Housing material	Lexan 940 (polycarbonate)	Lexan 940 (polycarbonate)
Flammability class	V-0 acc. to UL94, self-extinguishing, non-dripping, free of halogen	V-0 acc. to UL94, self-extinguishing, non-dripping, free of halogen
Weight	approx. 400 g	approx. 400 g
Dimensions [W x H x D]	43.75 x 65.5 x 106.5 mm	43.75 x 65.5 x 106.5 mm
ORDER CODE	175267	175283

BT5300	BT5400
Frequency One-phase	Power One-phase 3-phase 3-wire balanced or unbalanced load 3-phase 4-wire balanced or unbalanced load
57 ... 500 V – – – 45...55 Hz, 48...52 Hz, 55...65 Hz, 45...65 Hz < 0,6 VA 1.2 x U_N permanent 2 x U_N, 10x1 s, 10 min.	100...500 V 100...692 kV 1...5 A 1...9999 A 25...60 Hz < 0,6 VA (voltage) / < 0,2 VA (current) 1.2 x U_N / I_N permanent 2 x U_N, 10x1 s, 10 min. / 10 x I_N, 5x3 s, 5 min. 50 x I_N, 1x1 s, interval 1 h
60...300 V AC/DC ±5 %	60...300 V AC/DC ±5 %
0.2 x C –	0.2 x C 0.5 x C
Linear / kinked 0...20 mA / 4...20 mA or 0...10 V	Linear / kinked Unipolar 0...20 mA / 4...20 mA or 0...10 V Bipolar -20...0...+20 mA or -10...0...+10 V
Standard RS485: Modbus/RTU	Standard RS485: Modbus/RTU
0 ... 23 ... 45 °C -40...70 °C ± 0.2% / 10 °C ≤ 75% ≤ 2000 m above sea level	0 ... 23 ... 45 °C -40...70 °C ± 0.2% / 10 °C ≤ 75% ≤ 2000 m above sea level
II (protection insulation acc. to EN61010) 2 CATIII IP40 housing, IP20 terminals	II (protection insulation acc. to EN61010) 2 CATIII IP40 housing, IP20 terminals
LCD Lexan 940 (polycarbonate) V-0 acc. to UL94, self-extinguishing, non-dripping, free of halogen approx. 400 g 43.75 x 65.5 x 106.5 mm	LCD Lexan 940 (polycarbonate) V-0 acc. to UL94, self-extinguishing, non-dripping, free of halogen approx. 400 g 78.5 x 65.5 x 106.5 mm
175308	175316


SIRAX BT5100


SIRAX BT5200


SIRAX BT5300


SIRAX BT5400

VISUALISATION

CLEAR REPRESENTATION OF MEASURED VALUES

The LCD display shows measured values directly on site.

- Display of input and output parameters
- High-contrast display with backlit for good reading of measurement values
- Clear and unambiguous display of measured data
- Simple navigation via two push buttons

SIMPLE ON-SITE PROGRAMMING OF MEASURED VALUES

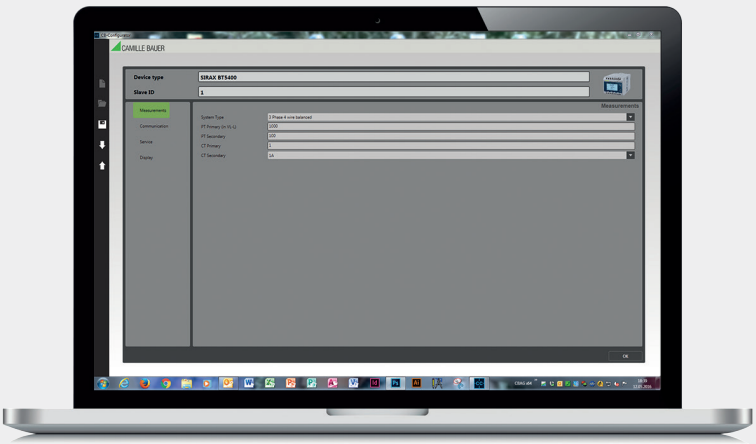
The following parameters can be set directly on site by means of the LCD display and two push buttons.

- Network configuration
- Values of current and voltage transformers
- Input and output parameters
- Communication parameter Modbus RTU
- Password protection

ADDITIONAL PROGRAMMING OF MEASURED VALUES VIA CB-CONFIGURATOR SOFTWARE

Via RS485 (Modbus RTU) interface and the CB-Configurator software the measured values may be programmed even more easily.

- Devices may be selected directly in the software
- Setting of input and output parameters
- Offline parameterization of measured values
- Loading and storage of configuration
- Upload of predefined configurations to several devices at the same time
- Password protection



SMARTCOLLECT

SMARTCOLLECT is a data management software which can acquire measured data in an easy manner and store the same in an open SQL database. This software offers basic functionalities for data analysis and for easy energy monitoring as well as the easy preparation and disposal of reports.

Providing a mature graphic user interface, the SMARTCOLLECT software is clearly structured and easily operated.

SMARTCOLLECT is modularly designed and permits supplementing modules or functions at any time.

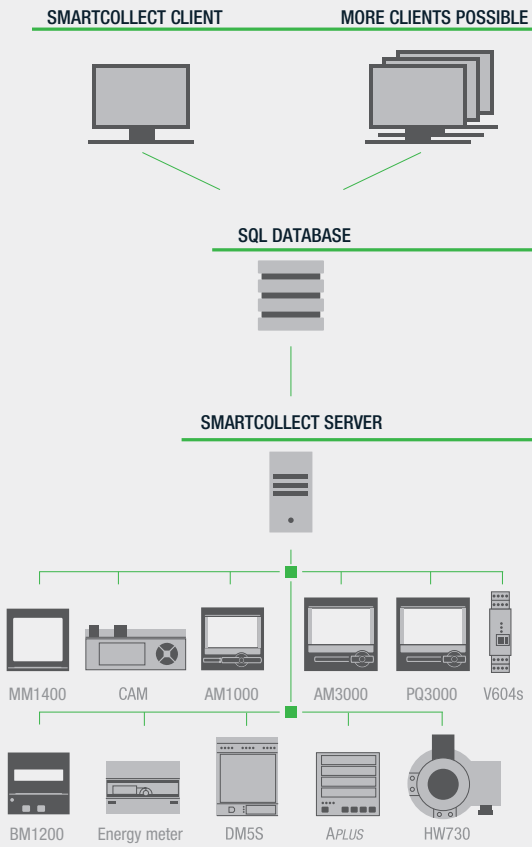
CUSTOMER BENEFITS

- Easy data communication via Modbus RTU / TCP, ECL and SmartControl-Direct
- Connection also via OPC
- Devices of Camille Bauer and Gossen Metrawatt are already predefined and selectable in the software
- Open for the devices of all manufacturers
- Data is stored in an open SQL database
- Modular cost / performance model – basic version may be extended at any time

MODULAR DESIGN

COMPONENTS

The SMARTCOLLECT data management software consists of the following components:



SMARTCOLLECT CLIENT

- Graphic visualisation of queried data
- Export via Excel file
- User interface to define the data sources to be read out as well as error and warning messages via email.

SMARTCOLLECT DATABASE

- SQL database
- Contains the collected data
- Open and unencrypted

SMARTCOLLECT SERVER

- Collects and configures data from active sources and channels and writes the same directly into the central database.

SMARTCOLLECT software components may be installed on an individual system or on several servers or computers.

GMC INSTRUMENTS

GOSSEN METRAWATT
CAMILLE BAUER

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