

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 decentrally 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
Туре	Voltage	Current
Connection types	One-phase	One-phase
INPUTS		
Nominal input Voltage [U _N] Voltage converter primary value [PT]	230 V AC L-N 57400 kV	
Nominal current $[I_N]$		15 A
Current transformer primary value [CT]	-	19999 A
Nominal frequency Power consumption	4565 Hz < 0.6 VA	4565 Hz < 0.2 VA
Overload capability	1.2 x U _N permanent	1.2 x I _N permanent
	$2 \times U_{N}$, $10 \times 1 \text{ s}$, 10 min .	10 x I_N , 5x3 s, 5 min. 50 x I_N , 1x1 s, 1 h
201122 011221	60300 V AC/DC ±5 %	60300 V AC/DC ±5 %
POWER SUPPLY	2460 V AC/DC ±10 %	2460 V AC/DC ±10 %
MEASUREMENT UNCERTAINTY		
Measurement uncertainty Measurement uncertainty phase angle,	0.2 x C	0.2 x C
power factor	-	-
ANALOG OUTPUTS	David Walan	Harry (Habrid
Linearization Range	Linear / kinked 020 mA / 420 mA or 010 V	Linear / kinked 020 mA / 420 mA or 010 V
COMMUNICATION	Standard RS485: Modbus/RTU	Standard RS485: Modbus/RTU
ENVIRONMENTAL CONDITIONS	0 00 45.90	0 00 45 90
Operating temperature Storage temperature	0 23 45 °C -4070 °C	0 23 45 °C -4070 °C
Temperature influence	± 0.2% / 10 °C	± 0.2% / 10 °C
Relative humidity	≤ 75%	≤ 75%
Operating altitude SAFETY	≤ 2000 m above sea level	≤ 2000 m above sea level
Protection class	II (protection insulation acc. to EN61010)	II (protection insulation acc. to EN61010)
Pollution degree	2	2
Measuring category Protection according to EN 60529	CATIII IP40 housing, IP20 terminals	CATIII IP40 housing, IP20 terminals
MECHANICAL PROPERTIES	ii to flouding, ii 20 toffilliado	ii to housing, ii 20 tominuto
Display	LCD	LCD
Housing material	Lexan 940 (polycarbonate) V-0 acc. to UL94, self-extinguishing, non-	Lexan 940 (polycarbonate) V-0 acc. to UL94, self-extinguishing, non-
Flammability class	dripping, free of halogen	dripping, free of halogen
Weight	approx. 400 g	approx. 400 g 43.75 x 65.5 x 106.5 mm
Dimensions [W x H x D]	43.75 x 65.5 x 106.5 mm	
ORDER CODE	175267 [60300 V AC/DC] 194985 [2460 V AC/DC]	175283 [60300 V AC/DC] 194993 [2460 V AC/DC]

BASIC TRANSDUCER

BT5300

Frequency One-phase

230 V ACL-N

45...55 Hz, 48...52 Hz, 55...65 Hz, 45...65 Hz

< 0.6 VA

1.2 x U_N permanent $2 \times U_{N}$, $10 \times 1 = 10$ min.

60...300 V AC/DC ±5 % 24...60 V AC/DC ±10 %

0.2 x C

Linear / kinked 0...20 mA / 4...20 mA or 0...10 V

Standard RS485: Modbus/RTU

0 ... 23 ... 45 °C -40...70 °C \pm 0.2% / 10 °C ≤ 75%

≤ 2000 m above sea level

II (protection insulation acc. to EN61010)

2 CATIII

IP40 housing, IP20 terminals

LCD

Lexan 940 (polycarbonate) V-0 acc. to UL94, self-extinguishing, nondripping, free of halogen approx. 400 g 43.75 x 65.5 x 106.5 mm

> 175308 [60...300 V AC/DC] 195001 [24...60 V AC/DC]

BT5400

Power

One-phase

3-phase 3-wire balanced or unbalanced load 3-phase 4-wire balanced or unbalanced load

100...500 V

100...692 kV

1...5 A

1...9999 A

25...60 Hz

< 0.6 VA (voltage) / < 0.2 VA (current)

 $1.2 \times U_N / I_N$ permanent

 $50 \times I_N$, $1 \times 1 \times 1$ s, interval 1 h

> 60...300 V AC/DC ±5 % 24...60 V AC/DC ±10 %

> > 0.2 x C

0.5 x C

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

0 ... 23 ... 45 °C

-40...70 °C

 \pm 0.2% / 10 °C

≤ 75%

≤ 2000 m above sea level

II (protection insulation acc. to EN61010)

2

CATIII

IP40 housing, IP20 terminals

LCD

Lexan 940 (polycarbonate) V-0 acc. to UL94, self-extinguishing, nondripping, free of halogen approx. 400 g

78.5 x 65.5 x 106.5 mm

175316 [60...300 V AC/DC] 195009 [24...60 V AC/DC]



SIRAX BT5100



SIRAX BT5200



SIRAX BT5300



SIRAX BT5400



POWER SYSTEM MONITORING

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 MEAS-URED 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

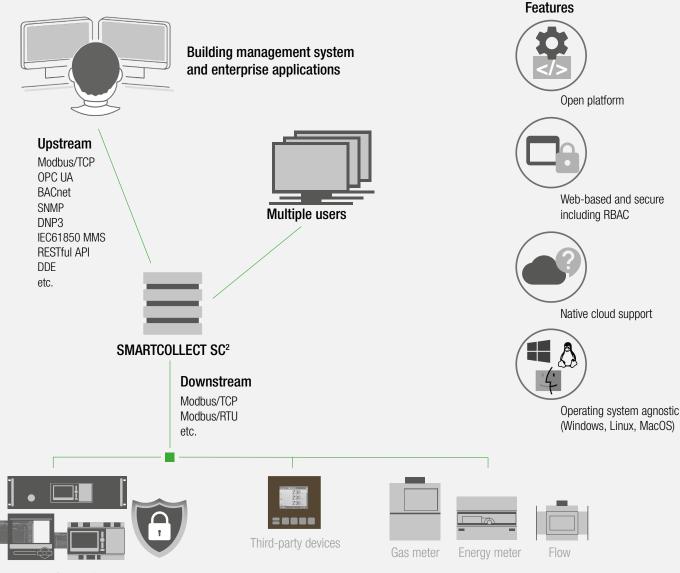
Via RS485 (Modbus RTU) interface and the CB-Configurator software the measured values may be programmed even more easily.

- 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® SC2

POWER SYSTEM MONITORING



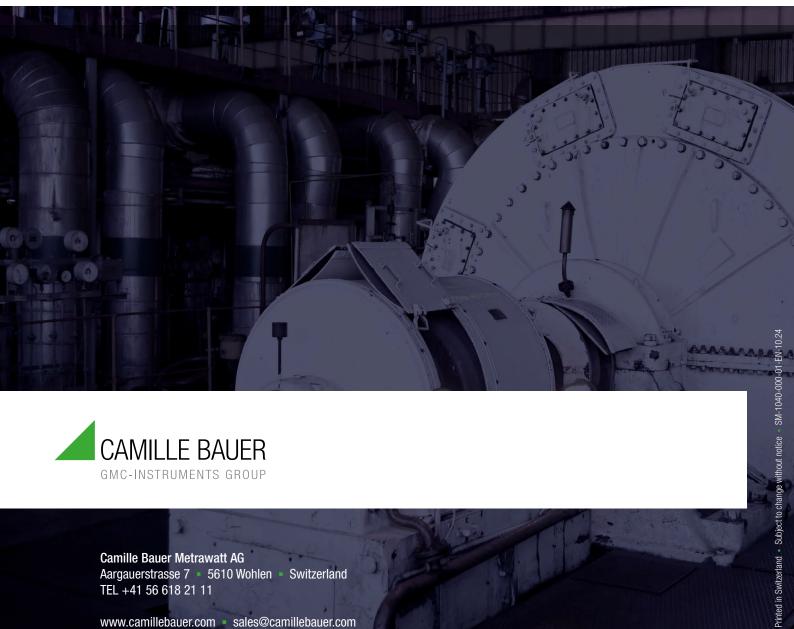








To see the benefits for yourself, visit our live page: www.scada-smartcollect.com





Camille Bauer Metrawatt AG Aargauerstrasse 7 = 5610 Wohlen = Switzerland TEL +41 56 618 21 11

www.camillebauer.com sales@camillebauer.com