Transformer ABC Three-Phase Busbar Temperature Sensor Modbus Communication Guide

In this example, the transformer temperature is measured using a passive temperature reading sensor, which acquires the temperatures of phases A, B, and C in a non-contact manner:

1. RS485 Modbus-RTU Communication Parameters of the Transformer Temperature Sensor

```
-- 115200 baud, no parity, 1 stop bit, function code "03", address 0x02, max response wait 1000 ms, packet interval 100 ms
com = {"BAUDRATE_115200","NoneParity","StopBit_1","03",0x02,1000,100},
```

Additional notes:

- Modbus address of the sensor: 0x02
- Maximum response wait 1000 ms: If the sensor fails and cannot communicate, Modbus communication will wait up to 1000 ms (1 second).
- Packet interval 100 ms: If the span of register addresses to read exceeds 125, the system will automatically fetch the data in packets; the interval between packets is set to 100 ms (0.1 second).

2. Sensor Modbus Data Points (excerpt from the manual)

A, B, C phase temperatures (integer, INT16, multiply by 0.1 to obtain the actual value)

Register Address (decimal)	Item	Access	Alarm	Size
48 (Phase A temperature)	TEMP1	Read Only	No	2Bytes
49 (Phase B temperature)	TEMP2	Read Only	No	2Bytes
50 (Phase C temperature)	TEMP3	Read Only	No	2Bytes

Signal strength of A, B, C phase temperature sensors (integer, INT16)

Register Address (decimal)	Item	Access	Alarm	Size
96 (Phase A signal strength)	RSSI1	Read Only	No	2Bytes
97 (Phase B signal strength)	RSSI2	Read Only	No	2Bytes
98 (Phase C signal strength)	RSSI3	Read Only	No	2Bytes