

SIPLUS ET 200SP AQ 2xI Standard -40 ... +70 °C With conformal coating Based on: 6ES7135-6GB00-0BA1 . Analog output module, AQ 2xI Standard, Pack quantity: 1 unit, suitable for BU type A0, A1, Color code CC00, Module diagnostics, 16 bit



| General information   |                   |
|---|-------------------|
| Product type designation  | 230 RCE           |
| Firmware version  |                   |
| <ul style="list-style-type: none"> <li>FW update possible</li> </ul>                      | Yes               |
| usable BaseUnits  | BU type A0, A1    |
| Color code for module-specific color identification plate                                 | CC00              |
| Product function  |                   |
| <ul style="list-style-type: none"> <li>I&amp;M data</li> </ul>                            | Yes; I&M0 to I&M3 |
| <ul style="list-style-type: none"> <li>Output range scalable</li> </ul>                   | No                |
| Engineering with  |                   |
| <ul style="list-style-type: none"> <li>PROFIBUS as of GSD version/GSD revision</li> </ul> | GSD Revision 5    |
| <ul style="list-style-type: none"> <li>PROFINET as of GSD version/GSD revision</li> </ul> | GSDML V2.3        |
| Operating mode  |                   |
| <ul style="list-style-type: none"> <li>Oversampling</li> </ul>                            | No                |
| <ul style="list-style-type: none"> <li>MSO</li> </ul>                                     | No                |
| CiR – Configuration in RUN  |                   |
| Reparameterization possible in RUN  | Yes               |

|  |                                     |
|--|-------------------------------------|
| Calibration possible in RUN  | No                                  |
| <b>Supply voltage</b>  |                                     |
| permissible range, lower limit (DC)  | 100 V                               |
| permissible range, upper limit (DC)  | 253 V                               |
| Reverse polarity protection  | Yes                                 |
| <b>Input current</b>   |                                     |
| Current consumption, max.  | 40 mA                               |
| <b>Address area</b>  |                                     |
| Address space per module   |                                     |
| • Address space per module, max.   | 4 byte; + 1 byte for QI information |
| <b>Analog outputs</b>  |                                     |
| Number of analog outputs   | 2                                   |
| Cycle time (all channels), min.  | 1 ms                                |
| Analog output with oversampling  | No                                  |
| Output ranges, current   |                                     |
| • 0 to 20 mA   | Yes; 15 bit                         |
| • -20 mA to +20 mA   | Yes; 16 bit incl. sign              |
| • 4 mA to 20 mA  | Yes; 14 bit                         |
| Connection of actuators  |                                     |
| • for current output two-wire connection                                   | Yes                                 |
| Load impedance (in rated range of output)                                  |                                     |
| • with current outputs, max.   | 500 $\Omega$                        |
| • with current outputs, inductive load, max.                               | 1 mH                                |
| Destruction limits against externally applied voltages and currents        |                                     |
| • Voltages at the outputs  | 30 V                                |
| Cable length   |                                     |
| • shielded, max.   | 1 000 m                             |
| <b>Analog value generation for the outputs</b>                             |                                     |
| Settling time  |                                     |
| • for resistive load   | 0.1 ms; Typical value               |
| • for inductive load   | 0.5 ms                              |
| <b>Errors/accuracies</b>   |                                     |
| Linearity error (relative to output range), (+/-)                          | 0.06 %                              |
| Temperature error (relative to output range), (+/-)                        | 0.01 %/K                            |
| Crosstalk between the outputs, min.  | -50 dB                              |
| Repeat accuracy in steady state at 25 °C (relative to output range), (+/-) | 0.05 %                              |
| Operational error limit in overall temperature range                       |                                     |
| • Current, relative to output range, (+/-)                                 | 1 %                                 |
| Basic error limit (operational limit at 25 °C)                             |                                     |

|   |   |
|---|---|
| • Current, relative to output range, (+/-)                          | 0.3 %   |
| <b>Isochronous mode</b>   |   |
| Isochronous operation (application synchronized up to terminal)     | No  |
| <b>Interrupts/diagnostics/status information</b>                    |   |
| Diagnostics function  | Yes   |
| Substitute values connectable                                       | Yes   |
| <b>Alarms</b>   |   |
| • Diagnostic alarm  | Yes   |
| <b>Diagnostic messages</b>  |   |
| • Monitoring the supply voltage                                     | Yes   |
| • Wire-break  | Yes   |
| • Group error   | Yes   |
| • Overflow/underflow  | Yes   |
| <b>Diagnostics indication LED</b>                                   |   |
| • Monitoring of the supply voltage (PWR-LED)                        | Yes; green PWR LED  |
| • Channel status display  | Yes; Green LED  |
| • for channel diagnostics   | No  |
| • for module diagnostics  | Yes; green/red DIAG LED   |
| <b>Potential separation</b>   |   |
| Potential separation channels                                       |   |
| • between the channels  | No  |
| • between the channels and backplane bus                            | Yes   |
| • between the channels and the power supply of the electronics      | Yes   |
| <b>Ambient conditions</b>   |   |
| Ambient temperature during operation                                |   |
| • horizontal installation, min.                                     | -40 °C; = Tmin  |
| • horizontal installation, max.                                     | 70 °C; = Tmax   |
| Altitude during operation relating to sea level                     |   |
| • Installation altitude above sea level, max.                       | 3 000 m   |
| • Ambient air temperature-barometric pressure-altitude              | Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... Tmax -5K) at 795 hPa ... 701 hPa (+2 000 m ... +3 000 m) |
| Relative humidity   |   |
| • With condensation, tested in accordance with IEC 60068-2-38, max. | 100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation                                   |
| Resistance  |   |
| Coolants and lubricants   |   |
| — Resistant to commercially available coolants and lubricants       | Yes; Incl. diesel and oil droplets in the air   |
| Use in stationary industrial systems                                |   |

- to biologically active substances according to EN 60721-3-3
- to chemically active substances according to EN 60721-3-3
- to mechanically active substances according to EN 60721-3-3

Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request

Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); \*

Yes; Class 3S4 incl. sand, dust, \*

**Use on ships/at sea**

- to biologically active substances according to EN 60721-3-6
- to chemically active substances according to EN 60721-3-6
- to mechanically active substances according to EN 60721-3-6

Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request

Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); \*

Yes; Class 6S3 incl. sand, dust; \*

**from supply voltage 1L+**

- Note regarding classification of environmental conditions acc. to EN 60721

\* The supplied plug covers must remain in place over the unused interfaces during operation!

**Dimensions**

|        |         |
|--------|---------|
| Width  | 71.5 mm |
| Height | 90 mm   |
| Depth  | 60 mm   |

**Weights**

|                 |      |
|-----------------|------|
| Weight, approx. | 31 g |
|-----------------|------|

**last modified:** 05/17/2018