

Revision Release List:**Safety Control System ProSafe-RS, R1.03****SIL3 compliant HW Components:**

| Model Name | Description | Revision Information | | Report – No. | Status |
|------------|---|----------------------|--|--------------------------------------|--------|
| | | Style | Revision No. | | |
| SSC10S | Safety Control Unit (Single CPU, Vnet) | S1 | N/A | 968/EZ 196.00/05 | Valid |
| SSC10D | Safety Control Unit (Dual red. CPU, Vnet) | S1 | N/A | 968/EZ 196.00/05 | Valid |
| SSC50S | Safety Control Unit (Single CPU, Vnet/IP) | S1 | N/A | 968/EZ 196.08/06 | Valid |
| SSC50D | Safety Control Unit (Dual red. CPU, Vnet/IP)) | S1 | N/A | 968/EZ 196.08/06 | Valid |
| SNB10D | Safety Node Unit | S2 | N/A | 968/EZ 196.08/06 | Valid |
| SCP401-11 | Processor Module for SSC10S/D, Vnet | S1 | U:2, H1:7, H2:0, F1:0, F2:2, F3:0, F4:5 | 968/EZ 196.15/08 | Valid |
| SCP451-11 | Processor Module for SSC50S/D, Vnet/IP | S1 | U:2, H1:2, H2:2, F1:15, F2:2, F3:0, F4:6 | announcement letter dated 2010-10-15 | Valid |
| SAI143-S03 | Analog Input Module (4 to 20mA) | S2 | U:0, H1:2, H2:0, F1:2, F2:2 | 968/EZ 196.08/06 | Valid |
| SAI143-S33 | Analog Input Module (4 to 20mA) With signal cable adapter | S2 | U:0, H1:2, H2:0, F1:2, F2:2 | 968/EZ 196.08/06 | Valid |
| SAI143-H03 | Analog Input Module (4 to 20mA, HART) | S2 | U:0, H1:0, H2:2, F1:1, F2:1 | 968/EZ 196.08/06 | Valid |
| SAI143-H33 | Analog Input Module (4 to 20mA, HART) With signal cable adapter | S2 | U:0, H1:0, H2:2, F1:1, F2:1 | 968/EZ 196.08/06 | Valid |
| SAV144-S03 | Analog Input Module (1 to 5V / 1 to 10V) | S2 | U:0, H1:0, H2:0, F1:2, F2:2 | 968/EZ 196.08/06 | Valid |
| SAV144-S33 | Analog Input Module (1 to 5V / 1 to 10V) With signal cable adapter | S2 | U:0, H1:0, H2:0, F1:2, F2:2 | 968/EZ 196.08/06 | Valid |
| SAI533-H03 | Analog Output Module (4 to 20mA, HART) | S1 | U:0, H1:0, H2:2, F1:2, F2:2 | 968/EZ 196.08/06 | Valid |
| SAI533-H33 | Analog Output Module (4 to 20mA, HART) With signal cable adapter | S1 | U:0, H1:0, H2:2, F1:2, F2:2 | 968/EZ 196.08/06 | Valid |

Manufacturer:

Yokogawa Electric Corporation
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Test Institute:

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D-51101 Köln

Revision Release List:

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| SDV144-S13 | Digital Input Module (contact input) | S3 | U:0, H1:0, H2:0, H3:1, F1:0, F2:0 | announcement letter dated 2010-08-09 | Valid |
| SDV144-S33 | Digital Input Module (contact input) With signal cable adapter | S3 | U:0, H1:0, H2:0, H3:1, F1:0, F2:0 | announcement letter dated 2010-08-09 | Valid |
| SDV521-S33 | Digital Output Module (24V DC) With signal cable adapter | S3 | U:0, H1:0, H2:0, H3:0, F1:0, F2:0 | announcement letter dated 2010-08-09 | Valid |
| SDV531-S13 | Digital Output Module (24V DC) | S1 | U:0, H1:2, H2:1, H3:1, F1:3, F2:3 | 968/EZ 196.00/05 | Valid |
| SDV531-S23 | Digital Output Module (24V DC) | S4 | U:0, H1:0, H2:0, H3:1, F1:0, F2:0 | announcement letter dated 2010-08-09 | Valid |
| SDV531-S33 | Digital Output Module (24V DC) With signal cable adapter | S4 | U:0, H1:0, H2:0, H3:1, F1:0, F2:0 | announcement letter dated 2010-08-09 | Valid |
| SDV531-L23 | Digital Output Module (24V DC) | S4 | U:0, H1:0, H2:0, H3:1, F1:0, F2:0 | announcement letter dated 2010-08-09 | Valid |
| SDV531-L33 | Digital Output Module (24V DC) With signal cable adapter | S4 | U:0, H1:0, H2:0, H3:1, F1:0, F2:0 | announcement letter dated 2010-08-09 | Valid |
| SDV541-S23 | Digital Output Module (24V DC – 16 channels) | S3 | U:0, H1:0, H2:0, H3:1, F1:0, F2:0 | announcement letter dated 2010-08-09 | Valid |
| SDV541-S33 | Digital Output Module (24V DC – 16 channels) With signal cable adapter | S3 | U:0, H1:0, H2:0, H3:1, F1:0, F2:0 | announcement letter dated 2010-08-09 | Valid |
| SCB100-S0 | Wiring Check Adapter | S2 | N/A | 968/EZ 196.11/07 | Valid |
| SCB110-S0 | Wiring Check Adapter | S2 | N/A | 968/EZ 196.11/07 | Valid |

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|----------|---|----|-----|--------------------------------------|-------|
| SEA4D-01 | Analog Terminal Board (16-channels x 2) without surge absorber | S1 | N/A | announcement letter dated 2010-10-06 | Valid |
| SEA4D-11 | Analog Terminal Board (16-channels x 2) with surge absorber | S1 | N/A | announcement letter dated 2010-10-06 | Valid |
| SED2D-01 | Digital Terminal Board (4-channels x 4) without surge absorber | S2 | N/A | announcement letter dated 2010-10-06 | Valid |
| SED2D-11 | Digital Terminal Board (4-channels x 4) with surge absorber | S2 | N/A | announcement letter dated 2010-10-06 | Valid |
| SED4D-01 | Digital Terminal Board (16-channels x 2) without surge absorber | S2 | N/A | announcement letter dated 2010-10-06 | Valid |
| SED4D-11 | Digital Terminal Board (16-channels x 2) with surge absorber | S2 | N/A | announcement letter dated 2010-10-06 | Valid |

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Further HW Components suitable for use to build up safety loops up to SIL3 with ProSafe-RS:

| Model Name | Description | Revision Information | | Report – No. | Status |
|------------|---|----------------------|---------------|------------------|--------|
| | | Style | Revision No. | | |
| AIP602 | FAN Unit for SSC10S/D, SSC50S/D | S1 | N/A | 968/EZ 196.00/05 | Valid |
| AIP504-13 | Vnet Coupler Unit | S1 | U:0, H:0 | 968/EZ 196.00/05 | Valid |
| SPW481-13 | 100-120V AC Input Power Supply Module for SSC10S/D, SNB10D, SSC50S/D, SNT10D | S1 | U:0, H:3 | 968/EZ 196.15/08 | Valid |
| SPW482-13 | 220-240V AC Input Power Supply Module for SSC10S/D, SNB10D, SSC50S/D, SNT10D | S1 | U:0, H:3 | 968/EZ 196.15/08 | Valid |
| SPW484-13 | 24VDC Input Power Supply Module for SSC10S/D, SNB10D, SSC50S/D, SNT10D | S1 | U:0, H:4 | 968/EZ 196.15/08 | Valid |
| SNT10D | Note Unit for Optical Bus Repeater Module | S1 | N/A | 968/EZ 196.08/06 | Valid |
| SNT401-13 | Optical ESB Bus Repeater Master Module for SSC10S/D, SNB10D, SSC50S/D, SNT10D | S1 | U:1, H:0, F:1 | 968/EZ 196.08/06 | Valid |
| SNT411-13 | Optical ESB Bus Repeater Master Module for long distance | S1 | U:0, H:0, F:1 | 968/EZ 196.11/07 | Valid |
| SNT501-13 | Optical ESB Bus Repeater Slave Module for SNB10D and SNT10D | S1 | U:1, H:0, F:1 | 968/EZ 196.08/06 | Valid |
| SNT511-13 | Optical ESB Bus Repeater Slave Module for long distance | S1 | U:0, H:0, F:1 | 968/EZ 196.11/07 | Valid |
| SEC401-11 | ESB Bus Coupler Module for SSC10S/D, SSC50S/D | S2 | U:0, H:0 | 968/EZ 196.08/06 | Valid |
| SSB401-13 | ESB Bus Interface Module for SNB10D | S1 | U:0, H:1 | 968/EZ 196.00/05 | Valid |

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| Model Name | Description | Revision Information | | Report – No. | Status |
|------------|-----------------------------------|----------------------|----------------------|------------------|--------|
| | | Style | Revision No. | | |
| ALR111-S01 | RS-232C Communication Module | S1 | U:0, H1:4, H2:2, F:3 | 968/EZ 196.00/05 | Valid |
| ALR121-S01 | RS-422/RS485 Communication Module | S1 | U:0, H1:4, H2:3, F:3 | 968/EZ 196.22/09 | Valid |

SIL3 compliant SW Components:

| Model Name | Description | Revision Information | | Report – No. | Status |
|------------|---------------------------------|----------------------|--------------|--------------------------------------|--------|
| | | Style | Revision No. | | |
| CFS1100 | Safety Control Function for SCS | N/A | 1.03.08 | announcement letter dated 2010-03-16 | Valid |

Further SW Components suitable for use to build up safety loops up to SIL3 with ProSafe-RS:

| Model Name | Description | Revision Information | | Report – No. | Status |
|------------|--|----------------------|--------------|--------------------------------------|--------|
| | | Style | Revision No. | | |
| CHS5100 | Safety System Generation and Maintenance | N/A | 1.03.09 | announcement letter dated 2010-05-31 | Valid |
| CHS5400 | Document Map and Safety Manual as part of the Software and Electronic Instruction Manual Media – CHSKM02 | N/A | 1.03.00 | 968/EZ 196.11/07 | Valid |

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Further interference free SW Components suitable for use with ProSafe-RS:

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|------------|---|----------------------|--------------|------------------|--------|
| | | Style | Revision No. | | |
| CHSKM02 | Software and Electronic Instruction Manual Media (Including: CHS5100, CHS2100, CHS2200, CHS5200, CHS5400) | N/A | 1.03.00 | 968/EZ 196.11/07 | Valid |
| CHS2100 | SOE Viewer | N/A | 1.03.00 | 968/EZ 196.11/07 | Valid |
| CHS2200 | SOE OPC Interface | N/A | 1.03.00 | 968/EZ 196.11/07 | Valid |
| CHS5200 | Engineering for CS3000 Integration | N/A | 1.03.00 | 968/EZ 196.11/07 | Valid |
| CHS5400 | Electronic Instruction Manual | N/A | 1.03.00 | 968/EZ 196.11/07 | Valid |
| CFS9153 | Modbus Communication Package (for ALR111, ALR121) | N/A | 1.01.30 | 968/EZ 196.04/06 | Valid |

| | Released by Manufacturer: | Released by Test Institute: | Released by Certifier: |
|----------------|---|---|--|
| Signed: |  Toshihiko Matsuda |  Karsten Rotzoll |  Heinz Gall |
| Date: | 2010-10-27 | 2010-10-27 | 2010-10-27 |

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Document-Revision

| Date | Version | Revisions / Changes | Author |
|------------|---------|--|---------------|
| 2005-04-11 | 1.0 | R1.01.00: First release | Hu / ASI |
| 2005-06-06 | 1.1 | R1.01.10: Revised User Manuals, for example Safety Manual, Engineering Guideline and Release Information, as part of the Electronic Instruction Manual (CHS5400) | Hu / ASI |
| 2005-07-27 | 1.2 | R1.01.10: Non safety related update of the SCP401-11 Processor Module from H1:5 to H1:6 | Hu / ASI |
| 2006-01-16 | 1.3 | R1.01.30: Subsystem Communication, DO-Module SDV531-S23, revised user manuals, bug fixing, performance improvements | Hu / ASI |
| 2006-02-20 | 1.4 | R1.01.40: Improvement of the Cross Reference Analyzer, bug fixing of the Communication I/O Lock Window | Hu / ASI |
| 2006-06-20 | 1.5 | R1.01.50: Bug fixing of SENG functions | Hu / ASI |
| 2006-10-24 | 1.6 | R1.02: New AI-DI modules, HART communication, Vnet/IP-Bus, Optical ESB Bus, Improvements CRA etc., Bug fixing, Keying mechanism for I/O cable, Detection mechanism for disconnection of the ESB Bus cable, Revised User Manuals | Hu / ASI |
| 2007-03-26 | 1.7 | R1.02.20: SCS system software modification (Full install CD ROM release: R1.02.20), SDV531 and SDV541modification | Hu / ASI |
| 2007-12-07 | 1.8 | R1.03: DO-Module(SDV531-L**, SDV521-S**), SNT411, SNT511, SCB100, SCB110, ST-programming language, SCS Link Transmission Safety Communication(New Inter SCS Communication), SCS Simulator, grouped Override, Enhancing Online Download Change Function, Modification SCP451 Style 2, Bug Fixes | Hei, kg / ASI |
| 2008-01-29 | 1.9 | R1.03: Revised revision list | Hu / ASI |
| 2008-12-17 | 2.0 | R1.03.03: Bug fixing of SCS Link Transmission | Ro / ASI |
| 2009-02-17 | 2.1 | R1.03.04: Bug fixing of Vnet driver of PC, on-line change download, SCS link transmission, self document function | Ro / ASI |
| 2009-05-18 | 2.2 | Update of I/O-modules SDV531, SDV451 and SDV144, update of communication module ALR 121 | Ro / ASI |
| 2009-06-30 | 2.3 | R1.03.05: The module of basic HMI was modified to fix a bug | Ro / ASI |
| 2009-09-30 | 2.4 | R1.03.07: Update of CHS5100 including SCS simulator | Ro, He / ASI |
| 2009-11-30 | 2.5 | Update of I/O-module SDV521 | Ro, He / ASI |
| 2010-03-31 | 2.6 | R1.03.08: Merged version of the previous bug fixings for R1.03, including the improvement of robustness of SCS | Ro, He / ASI |
| 2010-06-02 | 2.7 | R1.03.09: Merged version of the previous bug fixings for R1.03, including the bug fixing of Vnet driver of PC. A part change of SCP451-11 for improvement of productivity | Ro / ASI |

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|------------|-----|---|-----------------|
| 2010-10-27 | 2.8 | Improvement for the robustness of inter-SCS communication (SCP451). Improvement for the robustness of SDV144/SDV521/SDV531/SDV541 Addition of terminal boards | Ro, He / ASI |
|------------|-----|---|-----------------|

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