## **SIEMENS**

Data sheet 3RN2010-1CW30



Thermistor motor protection relay Compact evaluation unit 17.5 mm enclosure Screw terminal 1 NO contact, 1 NC contact US = 24 V-240 V AC/DC Auto RESET suitable for bimetallic switch 2 LEDs (Ready/Tripped) galvanic isolation

| product function display version LED  power loss [W] for rated value of the current  | product brand name                                 | SIRIUS  |  |
|--|--|---|--|
| design of the product product type designation 3RN2  anoral technical data  product function display version LED power loss [W] for rated value of the current • at AC in hot operating state • at DC in hot operating state • at SUbstance acc. to IEC 60068-2-27 • at SUbstance acc. to IEC 60068-2-6 • at SUb Iz rated value • at SUB Iz rated valu | product category                                   | SIRIUS 3RN2 thermistor motor protection                 |  |
| product type designation 3RN2  Seneral technical data  product function display version LED  | product designation                                | Thermistor motor protection relay                       |  |
| product function display version LED Yes  power loss [W] for rated value of the current  • at AC in hot operating state • at DC in hot operating state state volte operating state stor control supply voltage rated  value at DC in hot operating state state value  • at Ca t So Hz  | design of the product                              | Compact evaluation unit, suitable for bimetallic switch |  |
| product function display version LED  power loss [W] for rated value of the current  • at AC in hot operating state • at DC in hot operating state  0.9 W  insulation voltage for overvoltage category Ill according to IEC 60068 with degree of pollution  surge voltage resistance rated value  degree of pollution  3 urge voltage resistance rated value  4 kV  protection class IP  1P20  shock resistance acc. to IEC 60068-2-27  11g / 15 ms  vibration resistance acc. to IEC 60068-2-6  10 55 Hz: 0.35 mm  mechanical service life (switching cycles) typical  10 000 000  electrical endurance (switching cycles) typical  100 000  thermal current of the switching element with contacts maximum  reference code acc. to IEC 81346-2  K Substance Prohibitance (Date)  28.05.2009 00:00:00  control circuit/ Control  type of voltage of the control supply voltage  control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated      | product type designation                           | 3RN2  |  |
| display version LED power loss [W] for rated value of the current  • at AC in hot operating state • at DC in hot operating state • at DC in hot operating state insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value degree of pollution  surge voltage resistance rated value  4 kV protection class IP IP20 shock resistance acc. to IEC 60068-2-27 I1g / 15 ms vibration resistance acc. to IEC 60068-2-6 inclass service life (switching cycles) typical electrical endurance (switching cycles) typical  100 000  electrical endurance (switching cycles) typical  5 A   K  Substance Prohibitance (Date)  28.05.2009 00:00:00  20.00  20 | General technical data                             |   |  |
| power loss [W] for rated value of the current  • at AC in hot operating state • at DC in hot operating state • at DC in hot operating state insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value  degree of pollution 3 surge voltage resistance rated value  ### P20  Shock resistance acc. to IEC 60068-2-27 ### P20  Shock resistance acc. to IEC 60068-2-27 ### 11g / 15 ms  vibration resistance acc. to IEC 60068-2-6 ### 10 55 Hz; 0.35 mm  mechanical service life (switching cycles) typical electrical endurance (switching cycles) typical electrical endurance (switching cycles) typical thermal current of the switching element with contacts maximum reference code acc. to IEC 81346-2  Substance Prohibitance (Date)  **Otherol circuit/ Control**  type of voltage of the control supply voltage control supply voltage at AC  • at 50 Hz rated value • at 60 Hz rated value • at 60 Hz rated value  • at 60 Hz rated value  • at 60 Hz rated value  • at 40 vulcage at DC • rated value • at 90 vulcage at DC • rated value • at 10 vulcage at DC • initial value • full-scale value   | product function                                   | thermistor motor protection                             |  |
| • at AC in hot operating state • at DC in hot operating state 0.9 W 0.9  | display version LED                                | Yes   |  |
| • at DC in hot operating state  insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution  surge voltage resistance rated value  4 kV  protection class IP  shock resistance acc. to IEC 60068-2-27  vibration resistance acc. to IEC 60068-2-6  mechanical service life (switching cycles) typical  electrical endurance (switching cycles) at AC-15 at 230 V typical  thermal current of the switching element with contacts maximum  reference code acc. to IEC 81346-2  Substance Prohibitance (Date)  2 8.05.2009 00:00:00  control circuit/ Control  type of voltage of the control supply voltage  • at 50 Hz rated value  • at 60 Hz rated value  • at 60 Hz rated value  operating range factor control supply voltage rated value at DC  • initial value  • full-scale value  0 0.85  • full-scale value  operating range factor control supply voltage rated value at AC at 50 Hz     Substance Pt   Substance Pt   | power loss [W] for rated value of the current      |   |  |
| insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value  degree of pollution  surge voltage resistance rated value  4 kV  protection class IP  Shock resistance acc. to IEC 60068-2-27  11g / 15 ms  vibration resistance acc. to IEC 60068-2-8  nechanical service life (switching cycles) typical  electrical endurance (switching cycles) at AC-15 at 230 V  typical  thermal current of the switching element with contacts maximum  reference code acc. to IEC 81346-2  K Substance Prohibitance (Date)  28.05.2009 00:00:00  control circuit/ Control  type of voltage of the control supply voltage  o at 50 Hz rated value  at 60 Hz rated value  o at 60 Hz rated value  orerated value  orerated value  operating range factor control supply voltage rated value at DC  o initial value  of IIII-scale value  0.85  of IIII according to Williage rated value  operating range factor control supply voltage rated value at AC at 50 Hz  according range factor control supply voltage rated value at AC at 50 Hz   | <ul> <li>at AC in hot operating state</li> </ul>   | 0.9 W   |  |
| lEC 60664 with degree of pollution 3 rated value  degree of pollution  surge voltage resistance rated value  protection class IP  shock resistance acc. to IEC 60068-2-27  11g / 15 ms  vibration resistance acc. to IEC 60068-2-6  10 55 Hz: 0.35 mm  mechanical service life (switching cycles) typical electrical endurance (switching cycles) at AC-15 at 230 V typical thermal current of the switching element with contacts maximum  reference code acc. to IEC 81346-2  Substance Prohibitance (Date)  Substance Prohibitance (Date)  Control circuit/ Control  type of voltage of the control supply voltage  | <ul> <li>at DC in hot operating state</li> </ul>   | 0.9 W   |  |
| surge voltage resistance rated value  protection class IP  shock resistance acc. to IEC 60068-2-27  vibration resistance acc. to IEC 60068-2-6  nechanical service life (switching cycles) typical  electrical endurance (switching cycles) typical  electrical endurance (switching cycles) at AC-15 at 230 V typical  thermal current of the switching element with contacts maximum  reference code acc. to IEC 81346-2  Substance Prohibitance (Date)  Sontrol circuit/ Control  type of voltage of the control supply voltage  at 50 Hz rated value  at 60 Hz rated value  control supply voltage at DC  rated value  operating range factor control supply voltage rated value at DC  initial value  full-scale value  operating range factor control supply voltage rated value at AC at 50 Hz  operating range factor control supply voltage rated value at AC at 50 Hz  |  | 300 V   |  |
| protection class IP shock resistance acc. to IEC 60068-2-27 11g / 15 ms vibration resistance acc. to IEC 60068-2-6 10 55 Hz: 0.35 mm mechanical service life (switching cycles) typical electrical endurance (switching cycles) at AC-15 at 230 V typical reference (switching cycles) at AC-15 at 230 V typical reference code acc. to IEC 81346-2 Substance Prohibitance (Date) Substance Prohibitance (Date)  Control circuit/ Control type of voltage of the control supply voltage at 50 Hz rated value at 60 Hz rated value at 70 control supply voltage at DC a rated value at 70 control supply voltage at DC a rated value at 70 control supply voltage at DC a rated value at 70 control supply voltage rated value at 70 control supply voltage at DC a rated value at 70 control supply voltage rated val     | degree of pollution                                | 3   |  |
| shock resistance acc. to IEC 60068-2-27 vibration resistance acc. to IEC 60068-2-6  mechanical service life (switching cycles) typical electrical endurance (switching cycles) at AC-15 at 230 V typical  thermal current of the switching element with contacts maximum  reference code acc. to IEC 81346-2  Kubstance Prohibitance (Date)  Soutrol circuit/ Control  type of voltage of the control supply voltage at 50 Hz rated value at 60 Hz rated value at 60 Hz rated value  refered value  operating range factor control supply voltage rated value at DC  initial value at III / 15 ms  11g / 15 ms  11g / 15 ms  11g / 15 ms  11g / 15 ms  11  | surge voltage resistance rated value               | 4 kV  |  |
| vibration resistance acc. to IEC 60068-2-6  mechanical service life (switching cycles) typical electrical endurance (switching cycles) typical thermal current of the switching element with contacts maximum reference code acc. to IEC 81346-2  Substance Prohibitance (Date)  Sontrol circuit/ Control  type of voltage of the control supply voltage at 60 Hz rated value at 60 Hz rated value  orated value orated value of initial value of initial value of unitial value of unitial value of unitial value operating range factor control supply voltage rated value at AC at 50 Hz  operating range factor control supply voltage rated value at AC at 50 Hz  | protection class IP                                | IP20  |  |
| mechanical service life (switching cycles) typical electrical endurance (switching cycles) at AC-15 at 230 V typical  thermal current of the switching element with contacts maximum  reference code acc. to IEC 81346-2  Substance Prohibitance (Date)  Control circuit/ Control  type of voltage of the control supply voltage at 50 Hz rated value at 60 Hz rated value at 60 Hz rated value  orated value  arated value  orated va | shock resistance acc. to IEC 60068-2-27            | 11g / 15 ms   |  |
| electrical endurance (switching cycles) at AC-15 at 230 V typical  thermal current of the switching element with contacts maximum  reference code acc. to IEC 81346-2 K Substance Prohibitance (Date) 28.05.2009 00:00:00  Control circuit/ Control  type of voltage of the control supply voltage AC/DC  control supply voltage at AC  • at 50 Hz rated value 24 240 V  control supply voltage at DC  • rated value 24 240 V  operating range factor control supply voltage rated value at DC  • initial value 0.85  • full-scale value 1.1  operating range factor control supply voltage rated value at AC at 50 Hz   | vibration resistance acc. to IEC 60068-2-6         | 10 55 Hz: 0.35 mm                                       |  |
| thermal current of the switching element with contacts maximum  reference code acc. to IEC 81346-2  Substance Prohibitance (Date)  Control circuit/ Control  type of voltage of the control supply voltage  at 50 Hz rated value  at 60 Hz rated value  orated value  operating range factor control supply voltage rated value  of tull-scale value  operating range factor control supply voltage rated value at AC at 50 Hz  operating range factor control supply voltage rated value at AC at 50 Hz   | mechanical service life (switching cycles) typical | 10 000 000  |  |
| reference code acc. to IEC 81346-2  Substance Prohibitance (Date)  Pontrol circuit/ Control  type of voltage of the control supply voltage  at 50 Hz rated value  at 60 Hz rated value  are rated value  are rated value  are rated value  are rated value  be rated value  control supply voltage at DC  are rated value  are rated value  control supply voltage at DC  are rated value  control supply voltage at DC  are rated value  control supply voltage at DC  are rated value  control supply voltage rated value  control supply voltage rated value at DC  are initial value  are full-scale value  control supply voltage rated value  control supply voltage rated value at AC at 50 Hz  control supply voltage rated value at AC at 50 Hz   | , , , ,  | 100 000   |  |
| Substance Prohibitance (Date)  28.05.2009 00:00:00  Control circuit/ Control  type of voltage of the control supply voltage  AC/DC  control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  24 240 V  control supply voltage at DC  • rated value  24 240 V  control supply voltage at DC  • rated value  0.85  • full-scale value  operating range factor control supply voltage rated value  1.1  operating range factor control supply voltage rated value at AC at 50 Hz   |  | 5 A   |  |
| type of voltage of the control supply voltage  control supply voltage at AC  at 50 Hz rated value  at 60 Hz rated value  control supply voltage at DC  rated value  24 240 V  control supply voltage at DC  rated value  24 240 V  control supply voltage at DC  initial value  operating range factor control supply voltage rated value  operating range factor control supply voltage rated value at DC  initial value  operating range factor control supply voltage rated value at AC at 50 Hz  | reference code acc. to IEC 81346-2                 | K   |  |
| type of voltage of the control supply voltage  control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  • initial value  • full-scale value  • full-scale value  operating range factor control supply voltage rated value  • full-scale value  • full-scale value  operating range factor control supply voltage rated value at AC at 50 Hz  AC/DC  24 240 V  24 240 V  0.85  | Substance Prohibitance (Date)                      | 28.05.2009 00:00:00                                     |  |
| control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  control supply voltage at DC  • rated value  • rated value  • rated value  24 240 V  control supply voltage at DC  • rated value  • rated value  0.85  • full-scale value  operating range factor control supply voltage rated value  • full-scale value  1.1  | Control circuit/ Control                           |   |  |
| <ul> <li>at 50 Hz rated value</li> <li>at 60 Hz rated value</li> <li>24 240 V</li> </ul> control supply voltage at DC <ul> <li>rated value</li> <li>rated value</li> </ul> operating range factor control supply voltage rated value at DC <ul> <li>initial value</li> <li>full-scale value</li> </ul> 0.85 <ul> <li>full-scale value</li> </ul> operating range factor control supply voltage rated value at AC at 50 Hz  | type of voltage of the control supply voltage      | AC/DC   |  |
| ● at 60 Hz rated value  control supply voltage at DC  • rated value  operating range factor control supply voltage rated value at DC  • initial value • full-scale value  operating range factor control supply voltage rated value at AC at 50 Hz  24 240 V  0.85  1.1  | control supply voltage at AC                       |   |  |
| control supply voltage at DC  • rated value  operating range factor control supply voltage rated value at DC  • initial value  • full-scale value  operating range factor control supply voltage rated value at AC at 50 Hz  24 240 V  0.85  1.1   | <ul> <li>at 50 Hz rated value</li> </ul>           | 24 240 V  |  |
| <ul> <li>rated value</li> <li>operating range factor control supply voltage rated value at DC</li> <li>initial value</li> <li>full-scale value</li> <li>operating range factor control supply voltage rated value at AC at 50 Hz</li> </ul>  | at 60 Hz rated value                               | 24 240 V  |  |
| operating range factor control supply voltage rated value at DC  • initial value  • full-scale value  operating range factor control supply voltage rated value at AC at 50 Hz  0.85  1.1  | control supply voltage at DC                       |   |  |
| value at DC  | rated value  | 24 240 V  |  |
| ● full-scale value 1.1  operating range factor control supply voltage rated value at AC at 50 Hz   |  |   |  |
| operating range factor control supply voltage rated value at AC at 50 Hz   | • initial value                                    | 0.85  |  |
| value at AC at 50 Hz   | • full-scale value                                 | 1.1   |  |
| • initial value 0.85   |  |   |  |
|  | • initial value                                    | 0.85  |  |

| full-scale value  | 1.1  |
|---|--|
| operating range factor control supply voltage rated value at AC at 60 Hz  |  |
| • initial value   | 0.85   |
| • full-scale value  | 1.1  |
| inrush current peak   |  |
| • at 24 V   | 0.3 A  |
| • at 240 V  | 8 A  |
| duration of inrush current peak   |  |
| • at 24 V   | 0.15 ms  |
| • at 240 V  | 0.15 ms  |
| Measuring circuit   |  |
| buffering time in the event of power failure minimum  | 40 ms  |
| Precision   |  |
| relative metering precision   | 9 %  |
| Auxiliary circuit   | 3 70   |
|   | A25202   |
| material of switching contacts  | AgSnO2   |
| number of NC contacts for auxiliary contacts number of NO contacts for auxiliary contacts   | 1  |
| number of NO contacts for auxiliary contacts  number of CO contacts for auxiliary contacts  | 0  |
| operational current of auxiliary contacts at DC-13  | V  |
| • at 24 V   | 1 A  |
| • at 125 V  | 0.2 A  |
| • at 250 V  | 0.1 A  |
|   | 0.1 A  |
| Main circuit  | F0 0011-   |
| operating frequency rated value   | 50 60 Hz   |
| Outputs   |  |
| ampacity of the output relay at AC-15 at 250 V at 50/60 Hz  | 3 A  |
| ampacity of the output relay at DC-13   |  |
| • at 24 V   | 1.4  |
| • at 125 V  | 0.2 A  |
| continuous current of the DIAZED fuse link of the   | 6 A  |
| output relay  |  |
| Electromagnetic compatibility   |  |
|   |  |
| Electromagnetic compatibility   | 2 kV (power ports) / 1 kV (signal ports)   |
| Electromagnetic compatibility conducted interference  | 2 kV (power ports) / 1 kV (signal ports) 2 kV (line to ground)   |
| conducted interference  • due to burst acc. to IEC 61000-4-4  |  |
| Electromagnetic compatibility  conducted interference  • due to burst acc. to IEC 61000-4-4  • due to conductor-earth surge acc. to IEC 61000-4-5  • due to conductor-conductor surge acc. to IEC   | 2 kV (line to ground)  |
| Electromagnetic compatibility  conducted interference  • due to burst acc. to IEC 61000-4-4  • due to conductor-earth surge acc. to IEC 61000-4-5  • due to conductor-conductor surge acc. to IEC 61000-4-5   | 2 kV (line to ground) 1 kV (line to line)  |
| Electromagnetic compatibility  conducted interference  • due to burst acc. to IEC 61000-4-4  • due to conductor-earth surge acc. to IEC 61000-4-5  • due to conductor-conductor surge acc. to IEC 61000-4-5  electrostatic discharge acc. to IEC 61000-4-2  | 2 kV (line to ground) 1 kV (line to line)  |
| Electromagnetic compatibility  conducted interference  • due to burst acc. to IEC 61000-4-4  • due to conductor-earth surge acc. to IEC 61000-4-5  • due to conductor-conductor surge acc. to IEC 61000-4-5  electrostatic discharge acc. to IEC 61000-4-2  Galvanic isolation  | 2 kV (line to ground) 1 kV (line to line) 6 kV contact discharge / 8 kV air discharge  |
| Electromagnetic compatibility  conducted interference  • due to burst acc. to IEC 61000-4-4  • due to conductor-earth surge acc. to IEC 61000-4-5  • due to conductor-conductor surge acc. to IEC 61000-4-5  electrostatic discharge acc. to IEC 61000-4-2  Galvanic isolation  design of the electrical isolation  | 2 kV (line to ground) 1 kV (line to line) 6 kV contact discharge / 8 kV air discharge  |
| Electromagnetic compatibility  conducted interference  • due to burst acc. to IEC 61000-4-4  • due to conductor-earth surge acc. to IEC 61000-4-5  • due to conductor-conductor surge acc. to IEC 61000-4-5  electrostatic discharge acc. to IEC 61000-4-2  Galvanic isolation  design of the electrical isolation  galvanic isolation  | 2 kV (line to ground) 1 kV (line to line) 6 kV contact discharge / 8 kV air discharge galvanic isolation   |
| Electromagnetic compatibility  conducted interference  • due to burst acc. to IEC 61000-4-4  • due to conductor-earth surge acc. to IEC 61000-4-5  • due to conductor-conductor surge acc. to IEC 61000-4-5  electrostatic discharge acc. to IEC 61000-4-2  Galvanic isolation  design of the electrical isolation  galvanic isolation  • between input and output  | 2 kV (line to ground) 1 kV (line to line) 6 kV contact discharge / 8 kV air discharge galvanic isolation Yes   |
| Electromagnetic compatibility  conducted interference  • due to burst acc. to IEC 61000-4-4  • due to conductor-earth surge acc. to IEC 61000-4-5  • due to conductor-conductor surge acc. to IEC 61000-4-5  electrostatic discharge acc. to IEC 61000-4-2  Galvanic isolation  design of the electrical isolation  galvanic isolation  • between input and output  • between the outputs   | 2 kV (line to ground) 1 kV (line to line) 6 kV contact discharge / 8 kV air discharge  galvanic isolation  Yes Yes   |
| Electromagnetic compatibility  conducted interference  • due to burst acc. to IEC 61000-4-4  • due to conductor-earth surge acc. to IEC 61000-4-5  • due to conductor-conductor surge acc. to IEC 61000-4-5  electrostatic discharge acc. to IEC 61000-4-2  Galvanic isolation  design of the electrical isolation  galvanic isolation  • between input and output  • between the outputs  • between the voltage supply and other circuits  Connections/ Terminals  product component removable terminal for auxiliary and  | 2 kV (line to ground) 1 kV (line to line) 6 kV contact discharge / 8 kV air discharge  galvanic isolation  Yes Yes   |
| Electromagnetic compatibility  conducted interference  • due to burst acc. to IEC 61000-4-4  • due to conductor-earth surge acc. to IEC 61000-4-5  • due to conductor-conductor surge acc. to IEC 61000-4-5  electrostatic discharge acc. to IEC 61000-4-2  Galvanic isolation  design of the electrical isolation  galvanic isolation  • between input and output  • between the outputs  • between the voltage supply and other circuits  Connections/ Terminals  product component removable terminal for auxiliary and control circuit  | 2 kV (line to ground) 1 kV (line to line) 6 kV contact discharge / 8 kV air discharge  galvanic isolation  Yes Yes Yes   |
| Electromagnetic compatibility  conducted interference  • due to burst acc. to IEC 61000-4-4  • due to conductor-earth surge acc. to IEC 61000-4-5  • due to conductor-conductor surge acc. to IEC 61000-4-5  electrostatic discharge acc. to IEC 61000-4-2  Galvanic isolation  design of the electrical isolation  galvanic isolation  • between input and output  • between the outputs  • between the voltage supply and other circuits  Connections/ Terminals  product component removable terminal for auxiliary and control circuit  type of electrical connection   | 2 kV (line to ground) 1 kV (line to line) 6 kV contact discharge / 8 kV air discharge  galvanic isolation  Yes Yes Yes Screw-type terminals  |
| Electromagnetic compatibility  conducted interference  • due to burst acc. to IEC 61000-4-4  • due to conductor-earth surge acc. to IEC 61000-4-5  • due to conductor-conductor surge acc. to IEC 61000-4-5  electrostatic discharge acc. to IEC 61000-4-2  Galvanic isolation  design of the electrical isolation  galvanic isolation  • between input and output  • between the outputs  • between the voltage supply and other circuits  Connections/ Terminals  product component removable terminal for auxiliary and control circuit  type of electrical connection  • for auxiliary and control circuit  | 2 kV (line to ground) 1 kV (line to line) 6 kV contact discharge / 8 kV air discharge  galvanic isolation  Yes Yes Yes   |
| Electromagnetic compatibility  conducted interference  • due to burst acc. to IEC 61000-4-4  • due to conductor-earth surge acc. to IEC 61000-4-5  • due to conductor-conductor surge acc. to IEC 61000-4-5  electrostatic discharge acc. to IEC 61000-4-2  Galvanic isolation  design of the electrical isolation  galvanic isolation  • between input and output  • between the outputs  • between the voltage supply and other circuits  Connections/ Terminals  product component removable terminal for auxiliary and control circuit  type of electrical connection  • for auxiliary and control circuit  type of connectable conductor cross-sections  | 2 kV (line to ground) 1 kV (line to line) 6 kV contact discharge / 8 kV air discharge  galvanic isolation  Yes Yes Yes Yes  Screw-type terminals screw-type terminals  |
| Electromagnetic compatibility  conducted interference  • due to burst acc. to IEC 61000-4-4  • due to conductor-earth surge acc. to IEC 61000-4-5  • due to conductor-conductor surge acc. to IEC 61000-4-5  electrostatic discharge acc. to IEC 61000-4-2  Galvanic isolation  design of the electrical isolation  galvanic isolation  • between input and output  • between the outputs  • between the voltage supply and other circuits  Connections/ Terminals  product component removable terminal for auxiliary and control circuit  type of electrical connection  • for auxiliary and control circuit  type of connectable conductor cross-sections  • solid   | 2 kV (line to ground) 1 kV (line to line) 6 kV contact discharge / 8 kV air discharge  galvanic isolation  Yes Yes Yes Yes  Yes  1 x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)   |
| Electromagnetic compatibility  conducted interference  • due to burst acc. to IEC 61000-4-4  • due to conductor-earth surge acc. to IEC 61000-4-5  • due to conductor-conductor surge acc. to IEC 61000-4-5  electrostatic discharge acc. to IEC 61000-4-2  Galvanic isolation  design of the electrical isolation  galvanic isolation  • between input and output  • between the outputs  • between the voltage supply and other circuits  Connections/ Terminals  product component removable terminal for auxiliary and control circuit  type of electrical connection  • for auxiliary and control circuit  type of connectable conductor cross-sections  | 2 kV (line to ground) 1 kV (line to line)  6 kV contact discharge / 8 kV air discharge  galvanic isolation  Yes Yes Yes  Yes  Yes  1 x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 4 mm²), 2x (0.5 1.5 mm²)                      |
| Electromagnetic compatibility  conducted interference  • due to burst acc. to IEC 61000-4-4  • due to conductor-earth surge acc. to IEC 61000-4-5  • due to conductor-conductor surge acc. to IEC 61000-4-5  • due to conductor-conductor surge acc. to IEC 61000-4-5  electrostatic discharge acc. to IEC 61000-4-2  Galvanic isolation  design of the electrical isolation  galvanic isolation  • between input and output  • between the outputs  • between the voltage supply and other circuits  Connections/ Terminals  product component removable terminal for auxiliary and control circuit  type of electrical connection  • for auxiliary and control circuit  type of connectable conductor cross-sections  • solid  • finely stranded with core end processing   | 2 kV (line to ground) 1 kV (line to line) 6 kV contact discharge / 8 kV air discharge  galvanic isolation  Yes Yes Yes Yes  Yes  1 x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)   |
| Electromagnetic compatibility  conducted interference  • due to burst acc. to IEC 61000-4-4  • due to conductor-earth surge acc. to IEC 61000-4-5  • due to conductor-conductor surge acc. to IEC 61000-4-5  • due to conductor-conductor surge acc. to IEC 61000-4-5  • due to conductor-conductor surge acc. to IEC 61000-4-5  • due to conductor-conductor surge acc. to IEC 61000-4-5  • design of the electrical isolation  design of the electrical isolation  galvanic isolation  • between input and output  • between the outputs  • between the voltage supply and other circuits  Connections/ Terminals  product component removable terminal for auxiliary and control circuit  type of electrical connection  • for auxiliary and control circuit  type of connectable conductor cross-sections  • solid  • finely stranded with core end processing  • at AWG cables solid | 2 kV (line to ground) 1 kV (line to line) 6 kV contact discharge / 8 kV air discharge  galvanic isolation  Yes Yes Yes Yes  Yes  1 x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 4 mm²), 2x (0.5 1.5 mm²) 1x (20 12), 2x (20 14) |
| Electromagnetic compatibility  conducted interference  • due to burst acc. to IEC 61000-4-4  • due to conductor-earth surge acc. to IEC 61000-4-5  • due to conductor-conductor surge acc. to IEC 61000-4-5  • due to conductor-conductor surge acc. to IEC 61000-4-5  electrostatic discharge acc. to IEC 61000-4-2  Galvanic isolation  design of the electrical isolation  galvanic isolation  • between input and output  • between the outputs  • between the voltage supply and other circuits  Connections/ Terminals  product component removable terminal for auxiliary and control circuit  type of electrical connection  • for auxiliary and control circuit  type of connectable conductor cross-sections  • solid  • finely stranded with core end processing  • at AWG cables solid  connectable conductor cross-section   | 2 kV (line to ground) 1 kV (line to line)  6 kV contact discharge / 8 kV air discharge  galvanic isolation  Yes Yes Yes  Yes  Yes  1 x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 4 mm²), 2x (0.5 1.5 mm²)                      |

| AWG number as coded connectable conductor cross section |                           |                        |                 |
|---|---------------------------|------------------------|-----------------|
| • solid   | 20 12                     |                        |                 |
| stranded  | 20 12                     |                        |                 |
| tightening torque with screw-type terminals             | 0.6 0.8 N·m               |                        |                 |
| nstallation/ mounting/ dimensions                       |                           |                        |                 |
| mounting position                                       | any                       |                        |                 |
| fastening method  | screw and snap-on mountir | ng onto 35 mm standard | d mounting rail |
| height  | 100 mm                    |                        |                 |
| width   | 17.5 mm                   |                        |                 |
| depth   | 90 mm                     |                        |                 |
| required spacing  |                           |                        |                 |
| <ul> <li>with side-by-side mounting</li> </ul>          |                           |                        |                 |
| — forwards  | 0 mm                      |                        |                 |
| — backwards   | 0 mm                      |                        |                 |
| — upwards   | 0 mm                      |                        |                 |
| — downwards   | 0 mm                      |                        |                 |
| — at the side   | 0 mm                      |                        |                 |
| for grounded parts                                      |                           |                        |                 |
| — forwards  | 0 mm                      |                        |                 |
| — backwards   | 0 mm                      |                        |                 |
| — upwards   | 0 mm                      |                        |                 |
| — at the side   | 0 mm                      |                        |                 |
| — downwards   | 0 mm                      |                        |                 |
| for live parts  |                           |                        |                 |
| — forwards  | 0 mm                      |                        |                 |
| — backwards   | 0 mm                      |                        |                 |
| — upwards   | 0 mm                      |                        |                 |
| — downwards   | 0 mm                      |                        |                 |
| — at the side   | 0 mm                      |                        |                 |
| mbient conditions                                       |                           |                        |                 |
| installation altitude at height above sea level maximum | 2 000 m                   |                        |                 |
| ambient temperature                                     |                           |                        |                 |
| during operation  | -25 +60 °C                |                        |                 |
| during storage  | -40 +85 °C                |                        |                 |
| during transport  | -40 +85 °C                |                        |                 |
| relative humidity during operation                      | 70 %                      |                        |                 |
| Gertificates/ approvals                                 |                           |                        |                 |
| Occupation of Assessment                                |                           | EMO                    | Declaration of  |
|   |                           |                        |                 |

**General Product Approval** 

EMC

Declaration of Conformity













|  | Declaration of Conformity | Test Certificates | Marine / Shipping | other |
|--|---------------------------|-------------------|-------------------|-------|
|--|---------------------------|-------------------|-------------------|-------|

Miscellaneous

Type Test Certificates/Test Report

Lloyd's Register uis





Confirmation

## Further information

Information- and Downloadcenter (Catalogs, Brochures,...) <a href="https://www.siemens.com/ic10">https://www.siemens.com/ic10</a>

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RN2010-1CW30

Cax online generator

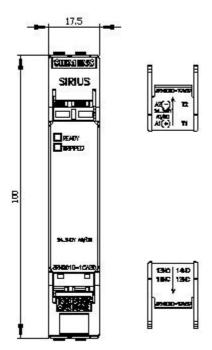
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RN2010-1CW30

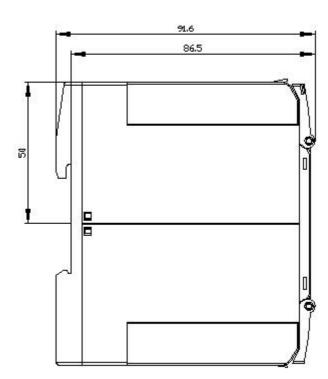
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RN2010-1CW30

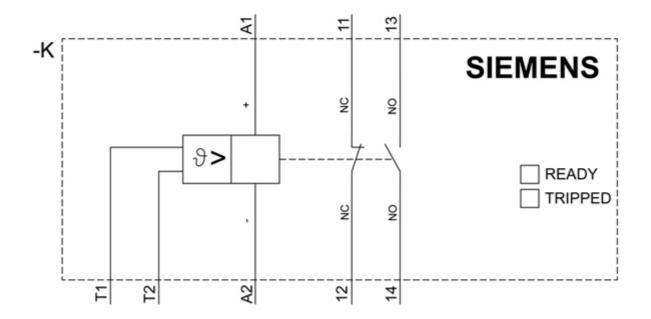
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax">http://www.automation.siemens.com/bilddb/cax</a> de.aspx?mlfb=3RN2010-1CW30&lang=en

**Characteristic: Derating** 

https://support.industry.siemens.com/cs/ww/en/ps/3RN2010-1CW30/manual







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