



Figure similar

Temperature monitoring relay with display for resistance temperature sensors and thermocouples, 24 V AC/DC, Width 22.5 mm, 2 change-over contacts, Spring-type terminal (push-in)

| | |
|---|--|
| product brand name | SIRIUS |
| product designation | Temperature monitoring relay |
| design of the product | Digital device, 1 sensor, 2 threshold values |
| product type designation | 3RS2 |
| General technical data | |
| product function | temperature monitoring |
| display version LED | No |
| insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value | 300 V |
| test voltage for isolation test | 4 kV |
| degree of pollution | 3 |
| protection class IP | 20 |
| 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 |
| switching behavior | monostable |
| mechanical service life (switching cycles) typical | 10 000 000 |
| electrical endurance (switching cycles) at AC-15 at 230 V typical | 100 000 |
| thermal current of the switching element with contacts maximum | 5 A |
| certificate of suitability relating to ATEX | Yes, with sensor extension module 3RS29 |
| reference code acc. to IEC 81346-2 | K |
| measurable temperature | |
| • initial value | -99 °C |
| • full-scale value | 1 800 °C |
| measurable Fahrenheit temperature | |
| • initial value | -146 °F |
| • full-scale value | 3 276 °F |
| Substance Prohibitive (Date) | 01.05.2012 00:00:00 |
| product function | |
| • error memory | Yes |
| • external reset | Yes |
| design of the sensor connectable | Resistance sensors: Pt100, Pt1000, KTY83-110, KTY84, NTC Thermocouples: Type J, K, T, E, N, S, R, B |
| measurable temperature with KTY-sensor maximum | 300 °C |
| sensor current with KTY-sensor | 0.33 mA |
| Control circuit/ Control | |
| type of voltage of the control supply voltage | AC/DC |
| control supply voltage at AC | |

| | |
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| <ul style="list-style-type: none"> • at 50 Hz rated value • at 60 Hz rated value | 24 ... 24 V 24 ... 24 V |
| control supply voltage 1 at AC | |
| <ul style="list-style-type: none"> • at 50 Hz rated value • at 50 Hz • at 60 Hz rated value • at 60 Hz | 24 V 24 ... 24 V 24 V 24 ... 24 V |
| control supply voltage 2 at AC | |
| <ul style="list-style-type: none"> • at 50 Hz rated value • at 60 Hz rated value | 24 V 24 V |
| control supply voltage at DC rated value | 24 ... 24 V |
| control supply voltage 1 | |
| <ul style="list-style-type: none"> • at DC rated value • at DC | 24 V 24 ... 24 V |
| operating range factor control supply voltage rated value at DC | |
| <ul style="list-style-type: none"> • initial value • full-scale value | 0.85 1.1 |
| operating range factor control supply voltage rated value at AC at 50 Hz | |
| <ul style="list-style-type: none"> • initial value • full-scale value | 0.85 1.1 |
| operating range factor control supply voltage rated value at AC at 60 Hz | |
| <ul style="list-style-type: none"> • initial value • full-scale value | 0.85 1.1 |
| supply voltage frequency for auxiliary and control circuit | 50 ... 60 Hz |
| number of measuring circuits | 1 |
| buffering time in the event of power failure minimum | 20 ms |
| Precision | |
| relative metering precision | 1 % |
| Short-circuit protection | |
| design of the fuse link | |
| <ul style="list-style-type: none"> • for short-circuit protection of the NO contacts of the relay outputs required • for short circuit protection of the NC contacts of the relay outputs required | gL/gG: 6 A or MCB type C: 1 A gL/gG: 6 A or MCB type C: 1 A |
| design of the fuse link | |
| <ul style="list-style-type: none"> • for short-circuit protection of the NO contacts of the relay outputs safety-related required • for short circuit protection of the NC contacts of the relay outputs safety-related required | gL/gG: 2 A or MCB type C: 1 A gL/gG: 2 A or MCB type C: 1 A |
| Communication/ Protocol | |
| protocol is supported IO-Link protocol | No |
| Auxiliary circuit | |
| material of switching contacts | AgSnO2 |
| number of NC contacts for auxiliary contacts | 0 |
| number of NO contacts for auxiliary contacts | 0 |
| number of CO contacts for auxiliary contacts | 2 |
| operational current of auxiliary contacts at DC-13 | |
| <ul style="list-style-type: none"> • at 24 V • at 125 V • at 250 V | 1 A 0.2 A 0.1 A |
| contact reliability of auxiliary contacts | one incorrect switching operation of 100 million switching operations (17 V, 5 mA) |
| contact rating of auxiliary contacts according to UL | R300 / B300 |
| influence of the surrounding temperature | 0.05% per K deviation from T20 |
| operating frequency rated value | 50 ... 60 Hz |
| 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 | |
| <ul style="list-style-type: none"> • at 24 V | 1 A |

| | |
|---|---|
| <ul style="list-style-type: none"> at 125 V | 0.2 A |
| continuous current of the DIAZED fuse link of the output relay | 6 A |
| continuous current of DIAZED fuse link of the output relay safety-related | 2 A |
| Electromagnetic compatibility | |
| EMC emitted interference acc. to IEC 60947-1 | Class B |
| conducted interference | |
| <ul style="list-style-type: none"> 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 (power ports), 1 kV (signal ports) 2 kV (line to ground) 1 kV (line to line) |
| field-based interference acc. to IEC 61000-4-3 | 10 V/m |
| electrostatic discharge acc. to IEC 61000-4-2 | 6 kV contact discharge / 8 kV air discharge |
| Galvanic isolation | |
| design of the electrical isolation | galvanic isolation |
| galvanic isolation | |
| <ul style="list-style-type: none"> between input and output between the outputs between the voltage supply and other circuits | Yes Yes No |
| Safety related data | |
| Safety Integrity Level (SIL) acc. to IEC 61508 | 1 |
| SIL Claim Limit (subsystem) acc. to EN 62061 | 1 |
| performance level (PL) acc. to EN ISO 13849-1 | c |
| category acc. to EN ISO 13849-1 | 1 |
| Safe failure fraction (SFF) | 66 % |
| PFHD with high demand rate acc. to EN 62061 | 0.00000039 1/h |
| hardware fault tolerance acc. to IEC 61508 | 0 |
| T1 value for proof test interval or service life acc. to IEC 61508 | 20 y |
| Connections/ Terminals | |
| product component removable terminal for auxiliary and control circuit | Yes |
| type of electrical connection | Push-in terminal |
| <ul style="list-style-type: none"> for auxiliary and control circuit | spring-loaded terminals (push-in) |
| type of connectable conductor cross-sections | |
| <ul style="list-style-type: none"> solid finely stranded with core end processing finely stranded without core end processing at AWG cables solid at AWG cables stranded | 0.5 ... 4 mm ² 0.5 ... 2.5 mm ² 0.5 ... 4 mm ² 20 ... 12 20 ... 12 |
| connectable conductor cross-section | |
| <ul style="list-style-type: none"> solid finely stranded with core end processing finely stranded without core end processing | 0.5 ... 4 mm ² 0.5 ... 2.5 mm ² 0.5 ... 4 mm ² |
| AWG number as coded connectable conductor cross section | |
| <ul style="list-style-type: none"> solid stranded | 20 ... 12 20 ... 12 |
| Installation/ mounting/ dimensions | |
| mounting position | any |
| fastening method | screw and snap-on mounting onto 35 mm standard mounting rail |
| height | 100 mm |
| width | 22.5 mm |
| depth | 90 mm |
| required spacing | |
| <ul style="list-style-type: none"> with side-by-side mounting <ul style="list-style-type: none"> forwards backwards upwards downwards | 0 mm 0 mm 0 mm 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 |

Ambient 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 % |
| explosion protection category for dust | Ex II (2) D [b1] [Ex h] [pyb] [tb] [mb] [kb] [sb] III C Db |
| explosion protection category for gas | Ex II (2) G [b1] [Ex h] [db] [eb] [pyb] [mb] [ob] [q] [kb] [sb] II C Gb |

Certificates/ approvals

| | | |
|--------------------------|-----|--------------------------------|
| General Product Approval | EMC | For use in hazardous locations |
|--------------------------|-----|--------------------------------|



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|---------------------------------------|---------------------------|-------------------|-------------------|-------|
| Functional Safety/Safety of Machinery | Declaration of Conformity | Test Certificates | Marine / Shipping | other |
|---------------------------------------|---------------------------|-------------------|-------------------|-------|

[Type Examination Certificate](#)

[Miscellaneous](#)



EG-Konf.

[Special Test Certificate](#)



[Confirmation](#)

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<https://www.siemens.com/ic10>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RS2600-2BA30>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RS2600-2BA30>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

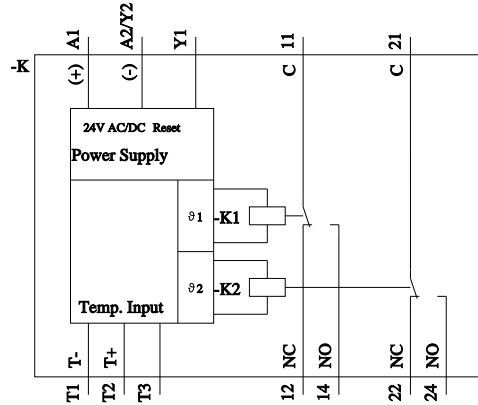
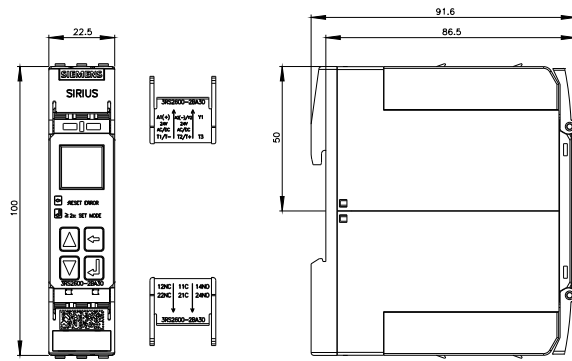
<https://support.industry.siemens.com/cs/ww/en/ps/3RS2600-2BA30>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RS2600-2BA30&lang=en

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3RS2600-2BA30/manual>



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