



Separation amplifier 24 V AC/DC, 3-way separation input: 4-20 mA output: 0-20 mA screw terminal

| | |
|--|----------------------------------|
| product brand name | SIRIUS |
| product category | Signal converter |
| product designation | Single-range converters |
| design of the product | active |
| product type designation | 3RS70 |
| General technical data | |
| display version LED | Yes |
| number of channels | 1 |
| consumed active power | 0.29 W |
| insulation voltage for overvoltage category III according to IEC 60664 | |
| • with degree of pollution 3 rated value | 50 V |
| surge voltage resistance rated value | 2 500 V |
| protection class IP | IP20 |
| shock resistance acc. to IEC 60068-2-27 | sinusoidal half-wave 15g / 11 ms |
| vibration resistance acc. to IEC 60068-2-6 | 6 ... 150 Hz: 2 g |
| reference code acc. to IEC 81346-2 | T |
| Supply voltage | |
| supply voltage at AC | |
| • at 50 Hz rated value | 24 V |
| • at 60 Hz rated value | 24 V |
| supply voltage at DC rated value | 24 V |
| • supply voltage frequency rated value | 60 ... 50 Hz |
| operating range factor supply voltage rated value | |
| • at AC at 50 Hz | 0.8 ... 1.1 |
| • at AC at 60 Hz | 0.8 ... 1.1 |
| • at DC | 0.8 ... 1.1 |
| Precision | |
| relative metering precision | 0.1 % |
| relative linearity deviation | 0.05 % |
| temperature drift per °C | 0.015 %/°C |
| voltage ripple maximum | 20 mV |
| limit frequency | 30 Hz |
| settling time for 1 % deviation | 17 ms |
| rise time | 6 ms |
| Main circuit | |
| type of voltage | AC/DC |

| Inputs/ Outputs | |
|--|---|
| input voltage | 30 V |
| property of the output short-circuit proof | Yes |
| type of signal at input | 4 ... 20 mA |
| type of signal at output | 0 ... 20 mA |
| input impedance of current input maximum | 100 Ω |
| Outputs | |
| output load | |
| • at the current output maximum | 500 Ω |
| Electromagnetic compatibility | |
| EMC emitted interference acc. to IEC 60947-1 | Environment B |
| EMC immunity acc. to IEC 60947-1 | corresponds to degree of severity 3 |
| conducted interference | |
| • due to burst acc. to IEC 61000-4-4 | 1 kV 5/50 ns |
| • due to conductor-conductor surge acc. to IEC 61000-4-5 | 1 kV |
| 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 | 3 paths |
| galvanic isolation | |
| • between input and output | Yes |
| • between the outputs | No |
| • between the inputs | No |
| • between the voltage supply and other circuits | Yes |
| Connections/ Terminals | |
| type of electrical connection | screw-type terminals |
| type of connectable conductor cross-sections | |
| • solid | 1x (0.25 ... 2.5 mm ²) |
| • finely stranded with core end processing | 1x (0.25 ... 1.5 mm ²) |
| • at AWG cables solid | 1 x (20 ... 14) |
| • connectable conductor cross-section solid | 0.25 ... 2.5 mm ² |
| • connectable conductor cross-section finely stranded with core end processing | 0.25 ... 1.5 mm ² |
| • AWG number as coded connectable conductor cross section solid | 20 ... 14 |
| • tightening torque with screw-type terminals | 0.5 ... 0.6 N·m |
| Installation/ mounting/ dimensions | |
| mounting position | any |
| fastening method | snap-on mounting |
| height | 93 mm |
| width | 6.2 mm |
| depth | 72.5 mm |
| required spacing | |
| • with side-by-side mounting | |
| — 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 |

Ambient conditions

| | |
|---|----------------|
| installation altitude at height above sea level maximum | 2 000 m |
| • ambient temperature during operation | -25 ... +60 °C |
| • ambient temperature during storage | -40 ... +80 °C |
| • ambient temperature during transport | -40 ... +80 °C |
| relative humidity during operation | 10 ... 95 % |

Certificates/ approvals

General Product Approval



EG-Konf.

[Miscellaneous](#)

[Type Test Certificates/Test Report](#)

Marine / Shipping

other



[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=3RS7003-1CE00>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RS7003-1CE00>

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

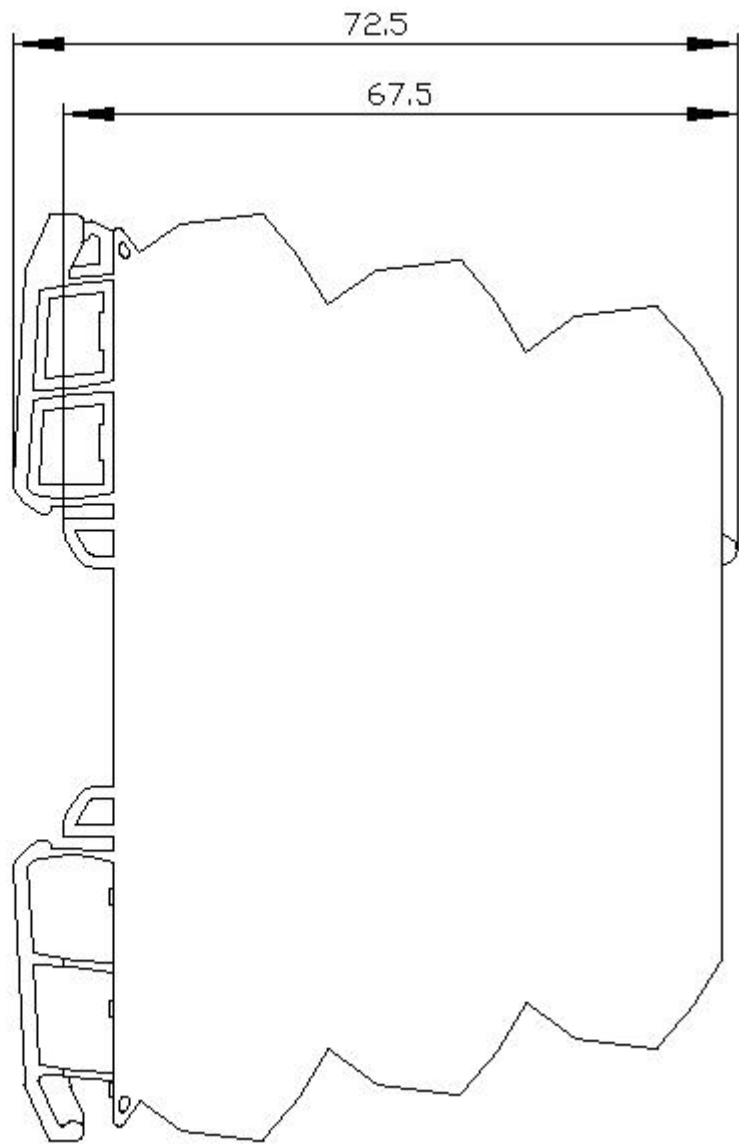
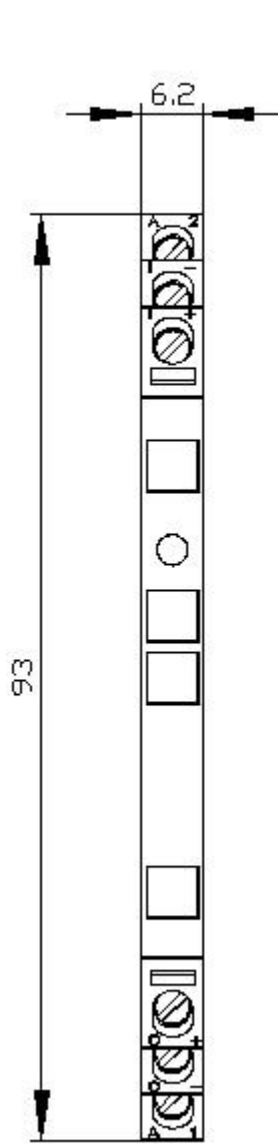
<https://support.industry.siemens.com/cs/ww/en/ps/3RS7003-1CE00>

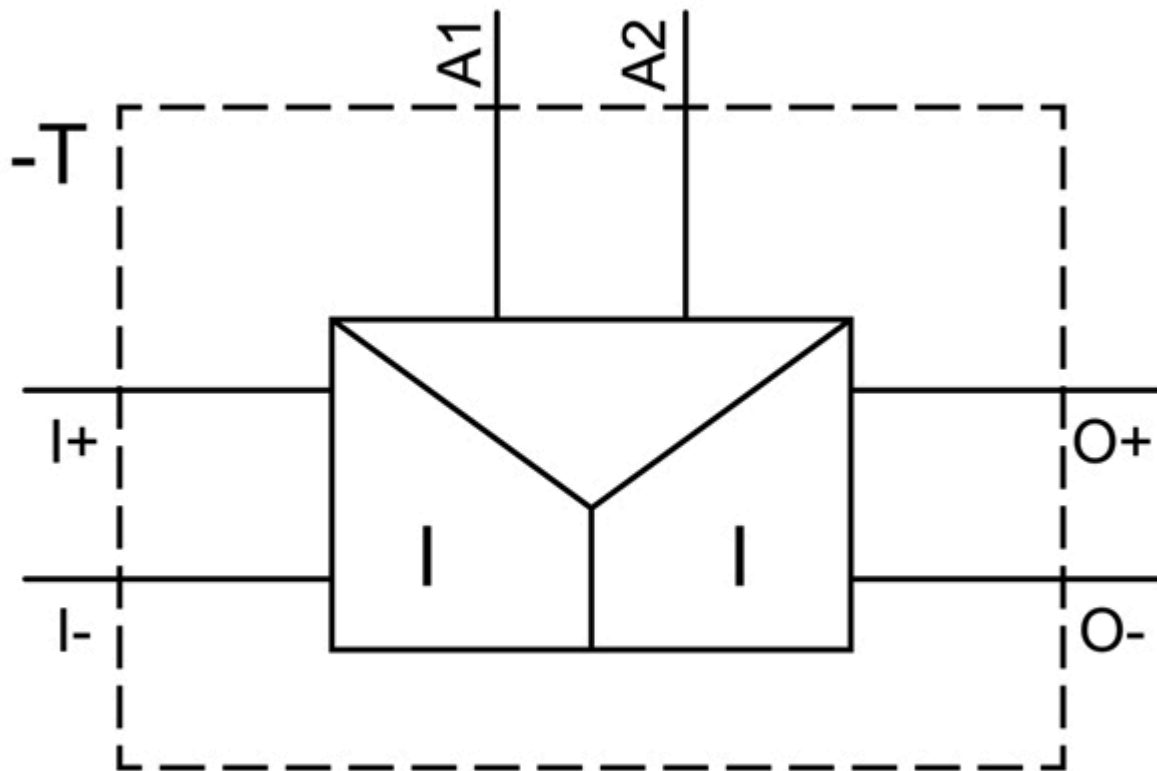
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RS7003-1CE00&lang=en

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3RS7003-1CE00/manual>





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