

Separation amplifier 24 V AC/DC, 3-way separation input: 4-20 mA  
output: 4-20 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
Surge voltage resistance rated value	2 500 V
Protection class IP	IP20
Shock resistance	
<ul style="list-style-type: none"> <li>acc. to IEC 60068-2-27</li> </ul>	sinusoidal half-wave 15g / 11 ms
Reference code acc. to DIN EN 81346-2	T
Reference code acc. to DIN EN 61346-2	K

Supply voltage	
Supply voltage at AC	
<ul style="list-style-type: none"> <li>at 50 Hz rated value</li> </ul>	24 V
<ul style="list-style-type: none"> <li>at 60 Hz rated value</li> </ul>	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

<b>Precision</b>	
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

<b>Main circuit</b>	
Type of voltage	AC/DC

<b>Inputs/ Outputs</b>	
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	4 ... 20 mA
Input impedance of current input maximum	100 Ω

<b>Outputs</b>	
Load	
• at the current output maximum	500 Ω

<b>Electromagnetic compatibility</b>	
EMC emitted interference	
• acc. to IEC 60947-1	Environment B
EMI 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-bound parasitic coupling 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

<b>Galvanic isolation</b>	
Design of the electrical isolation	3 paths
Galvanic isolation	

• between entrance and outlet	Yes
• between the outputs	No
• between the inputs	No
• between the voltage supply and other circuits	Yes

### Connections/ Terminals

<b>Type of electrical connection</b>	screw-type terminals
<b>Type of connectable conductor cross-sections</b>	
• solid	1x (0.25 ... 2.5 mm <sup>2</sup> )
• finely stranded with core end processing	1x (0.25 ... 1.5 mm <sup>2</sup> )
• at AWG conductors solid	1 x (20 ... 14)
<b>Connectable conductor cross-section</b>	
• solid	0.25 ... 2.5 mm <sup>2</sup>
• finely stranded with core end processing	0.25 ... 1.5 mm <sup>2</sup>
<b>AWG number as coded connectable conductor cross section</b>	
• solid	20 ... 14
<b>Tightening torque</b>	
• with screw-type terminals	0.5 ... 0.6 N·m

### Installation/ mounting/ dimensions

<b>Mounting position</b>	any
<b>Mounting type</b>	snap-on mounting
<b>Height</b>	93 mm
<b>Width</b>	6.2 mm
<b>Depth</b>	72.5 mm
<b>Required spacing</b>	
• 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
- at the side

0 mm  
0 mm

### Ambient conditions

<b>Installation altitude at height above sea level</b>	
• maximum	2 000 m
<b>Relative humidity</b>	
• during operation	10 ... 95 %

### Certificates/ approvals

General Product Approval	Declaration of Conformity	Test Certificates
 CSA	 UL	 EAC
	 EG-Konf.	<a href="#">Miscellaneous</a> <a href="#">Type Test Certificates/Test Report</a>

<b>Marine / Shipping</b>	<b>other</b>
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[Confirmation](#)

### Further information

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

[www.siemens.com/sirius/catalogs](http://www.siemens.com/sirius/catalogs)

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RS7003-1DE00>

**Cax online generator**

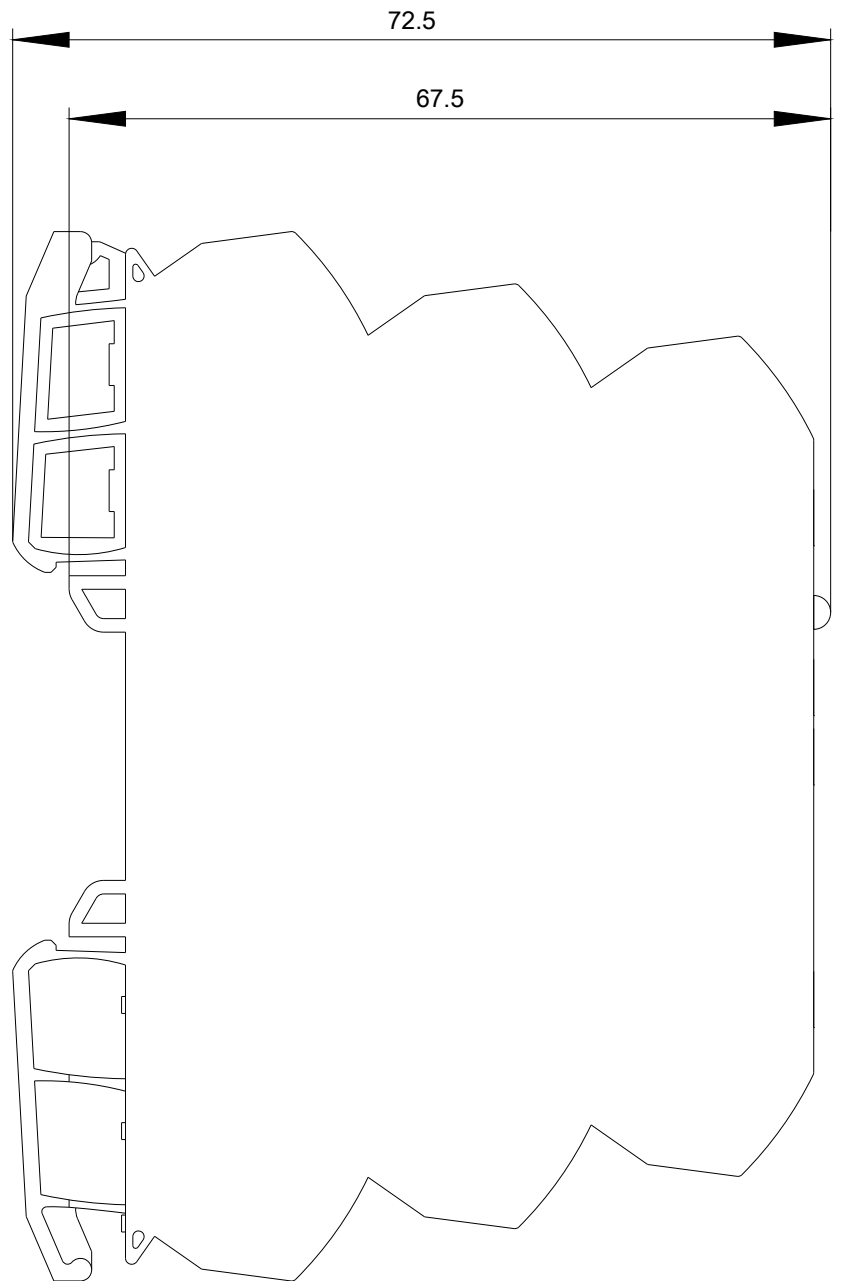
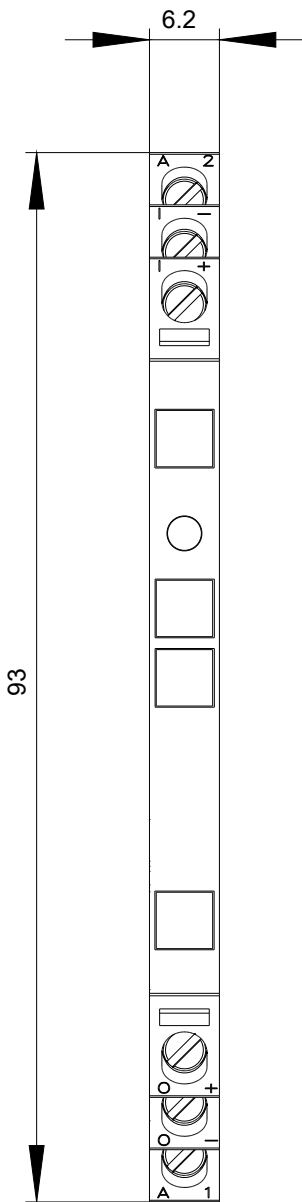
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RS7003-1DE00>

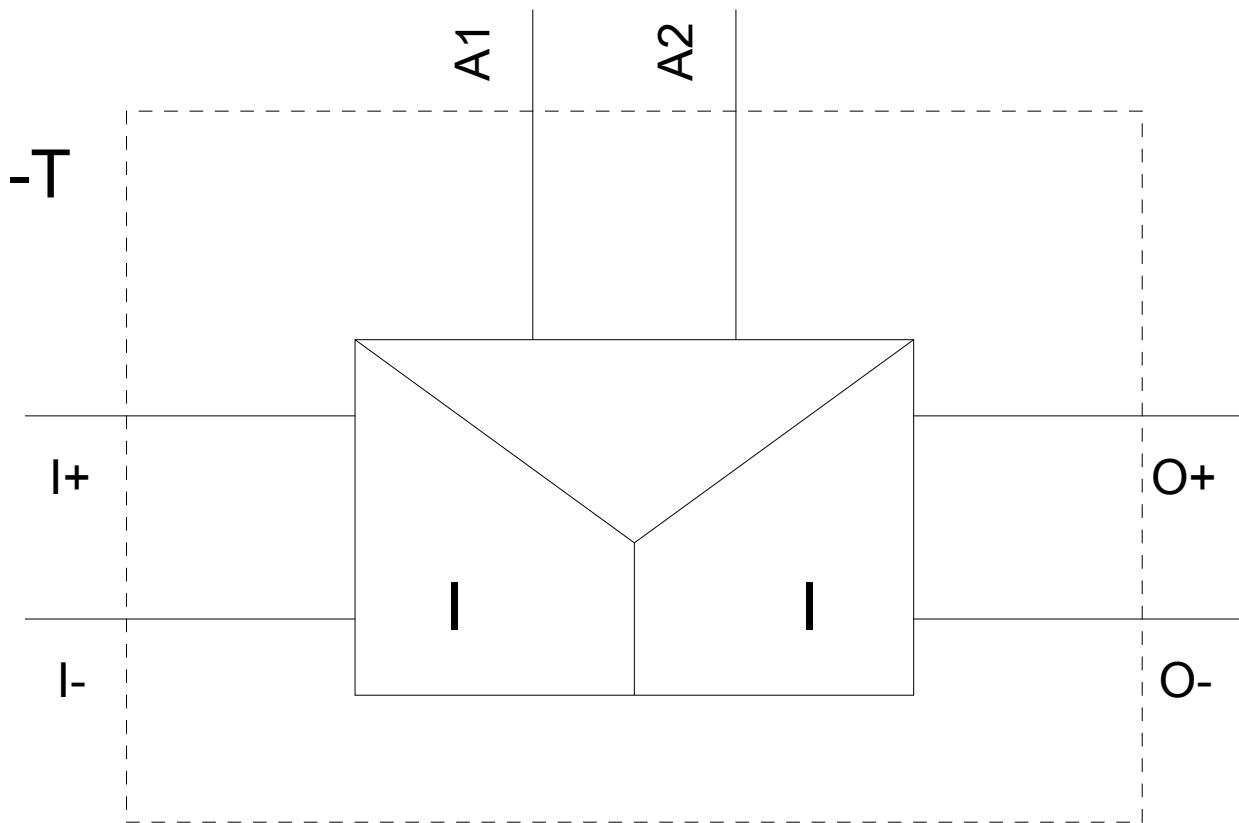
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/ww/en/ps/3RS7003-1DE00>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RS7003-1DE00&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RS7003-1DE00&lang=en)





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