



Separation amplifier 24-240 V AC/DC, 3-way separation input: 0-60 mV, 0-100 mV 0-300 mV, 0-500 mV, 0-1 V 0-20 V, 2-10 V, 0-5 mA, 0-10 mA 2-10 V, 0-5 mA, 0-10 mA 0-20mA, 4-20 mA, +-5 mA, +-20 mA output: 0 - 10 V, 0/4 - 20 mA screw terminal

product brand name	SIRIUS
product category	Signal converter
product designation	universal converter
design of the product	active, switchable
product type designation	3RS70

General technical data

display version LED	Yes
number of channels	1
consumed active power	0.5 W
insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value	300 V
surge voltage resistance rated value	4 000 V
protection class IP	IP20
shock resistance according to IEC 60068-2-27	sinusoidal half-wave 15g / 11 ms
vibration resistance according to IEC 60068-2-6	6 ... 150 Hz: 2 g
reference code according to IEC 81346-2	T
Substance Prohibitance (Date)	03/25/2015

Supply voltage

supply voltage at AC	
• at 50 Hz rated value	24 ... 240 V
• at 60 Hz rated value	24 ... 240 V
supply voltage at DC rated value	24 ... 240 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
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Inputs/ Outputs

input voltage	30 V
property of the output short-circuit proof	Yes
type of signal at input	0 ... 60 mV, 0 ... 100 mV, 0 ... 300 mV, 0 ... 500 mV, 0 ... 1 V, 0 ... 2 V, 0

type of signal at output

input impedance of current input maximum

input impedance of voltage input minimum

output load

- at voltage output minimum
- at the current output maximum

... 5 V, 0 ... 10 V, 0 ... 20 V, 2 ... 10 V, 0 ... 5 mA, 0 ... 10 mA, 0 ... 20 mA, 4 ... 20 mA, +/-5 mA, +/-20 mA
0 ... 10 V, 0 ... 20 mA, 4 ... 20 mA
100 Ω
330 kΩ
2 kΩ
500 Ω

Electromagnetic compatibility

EMC emitted interference according to IEC 60947-1

EMC immunity according to IEC 60947-1

Environment B
corresponds to degree of severity 3

conducted interference

- due to burst according to IEC 61000-4-4
- due to conductor-conductor surge according to IEC 61000-4-5

1 kV 5/50 ns
1 kV

field-based interference according to IEC 61000-4-3

10 V/m

electrostatic discharge according 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
- between the outputs
- between the inputs
- between the voltage supply and other circuits

Yes
No
No
Yes

Connections/ Terminals

type of electrical connection

screw-type terminals

type of connectable conductor cross-sections

- solid
- finely stranded with core end processing
- at AWG cables solid

1x (0.25 ... 2.5 mm²)
1x (0.25 ... 1.5 mm²)
1 x (20 ... 14)

connectable conductor cross-section

- solid
- finely stranded with core end processing

0.25 ... 2.5 mm²
0.25 ... 1.5 mm²

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

17.5 mm

depth

72.5 mm

required spacing

- with side-by-side mounting
 - forwards
 - backwards
 - upwards
 - downwards
 - at the side
- for grounded parts
 - forwards
 - backwards
 - upwards
 - at the side
 - downwards
- for live parts
 - forwards
 - backwards
 - upwards
 - downwards
 - at the side

0 mm
0 mm
0 mm
0 mm
0 mm
0 mm
0 mm
0 mm
0 mm
0 mm
0 mm
0 mm
0 mm
0 mm
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 ... +80 °C
• during transport	-40 ... +80 °C
relative humidity during operation	10 ... 95 %

Certificates/ approvals

General Product Approval

Declaration of Conformity



[Confirmation](#)



Test Certificates

Marine / Shipping

other

[Type Test Certificates/Test Report](#)



[Confirmation](#)

Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

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?mfb=3RS7006-1FW00>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RS7006-1FW00>

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

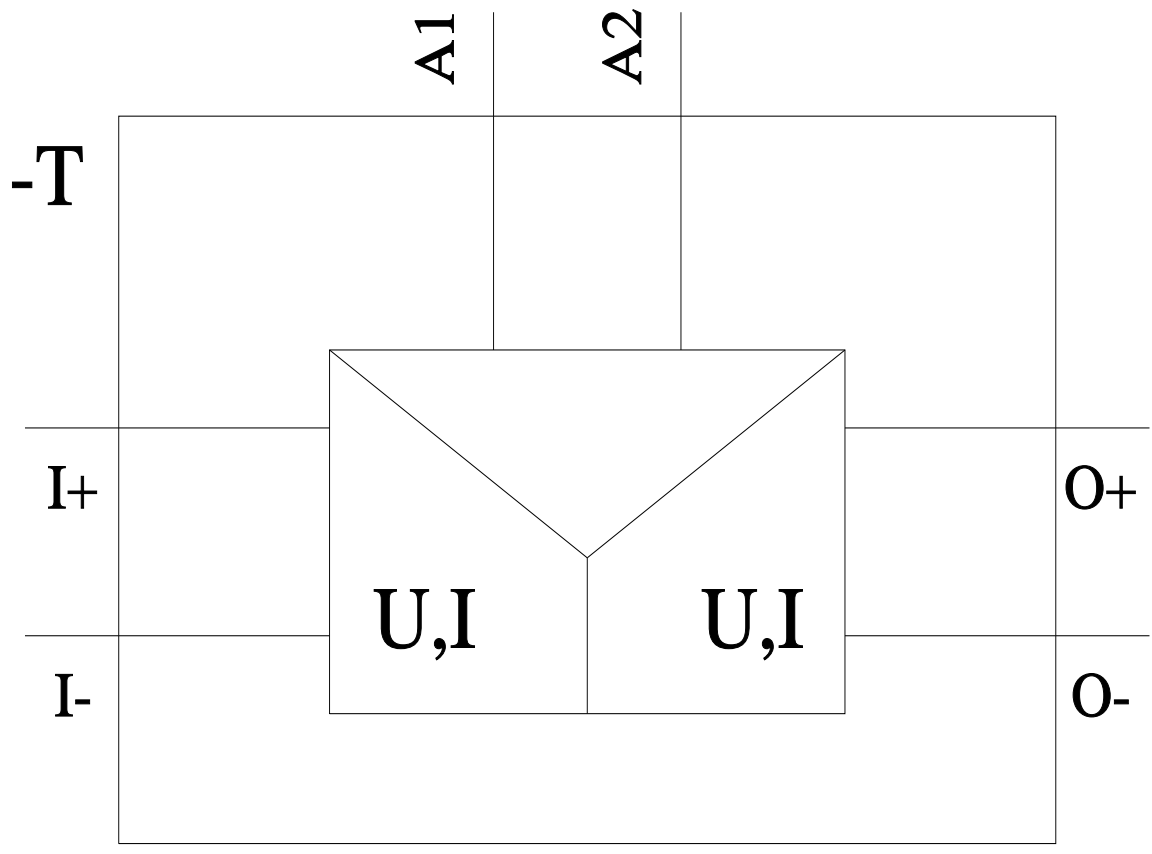
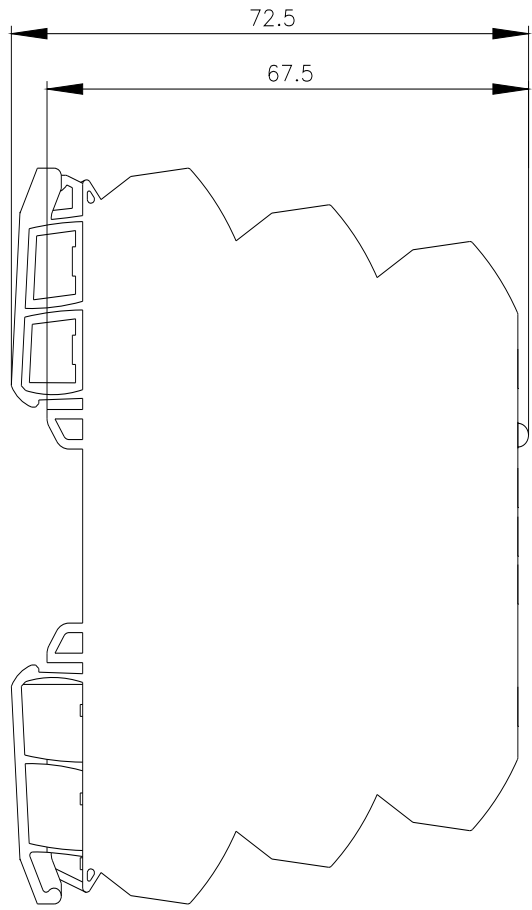
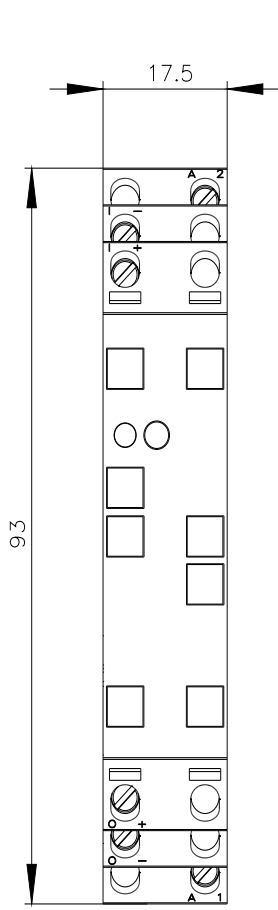
<https://support.industry.siemens.com/cs/ww/en/ps/3RS7006-1FW00>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RS7006-1FW00&lang=en

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3RS7006-1FW00/manual>



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