



Separation amplifier 24 V AC/DC, 3-way separation input: 0-10 V, 0/4-20 mA; output: 0-50/100 Hz/1/10 kHz; Spring-type terminal (push-in)

product brand name	SIRIUS
product category	Signal converter
product designation	multi-range converters
design of the product	active, switchable
product type designation	3RS70

General technical data

display version LED	Yes
number of channels	1
consumed active power	0.29 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 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 Prohibittance (Date)	03/25/2015

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
limit frequency	30 Hz
settling time for 1 % deviation	17 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 ... 10 V, 0 ... 20 mA, 4 ... 20 mA
type of signal at output	0 ... 50 Hz, 0 ... 100 Hz, 0 ... 1 kHz, 0 ... 10 kHz
input impedance of current input maximum	100 Ω

input impedance of voltage input minimum	330 kΩ
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 <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • 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	spring-loaded terminals
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 	1x (0.25 ... 2.5 mm ²) 1x (0.25 ... 1.5 mm ²) 1x (0.25 ... 2.5 mm ²) 1 x (20 ... 14) 1x (20 ... 14)
connectable conductor cross-section <ul style="list-style-type: none"> • solid • finely stranded with core end processing • finely stranded without core end processing 	0.25 ... 2.5 mm ² 0.25 ... 1.5 mm ² 0.25 ... 2.5 mm ²
AWG number as coded connectable conductor cross section <ul style="list-style-type: none"> • solid • stranded 	20 ... 14 20 ... 14
Installation/ mounting/ dimensions	
mounting position	any
fastening method	snap-on mounting
height	93 mm
width	6.2 mm
depth	72.5 mm
required spacing <ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards — backwards — upwards — downwards — at the side • for grounded parts <ul style="list-style-type: none"> — forwards — backwards — upwards — at the side — downwards • for live parts <ul style="list-style-type: none"> — 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 <ul style="list-style-type: none"> • during operation • during storage 	-25 ... +60 °C -40 ... +80 °C

- during transport
- relative humidity during operation

-40 ... +80 °C
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?mlfb=3RS7005-2KE00>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RS7005-2KE00>

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

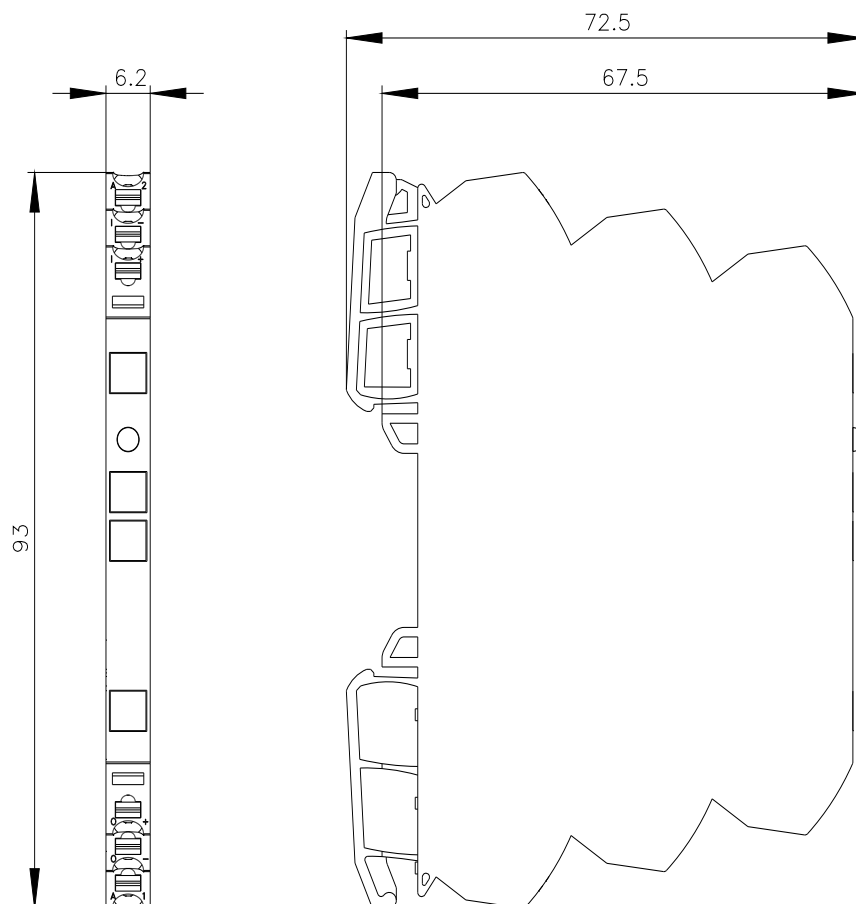
<https://support.industry.siemens.com/cs/ww/en/ps/3RS7005-2KE00>

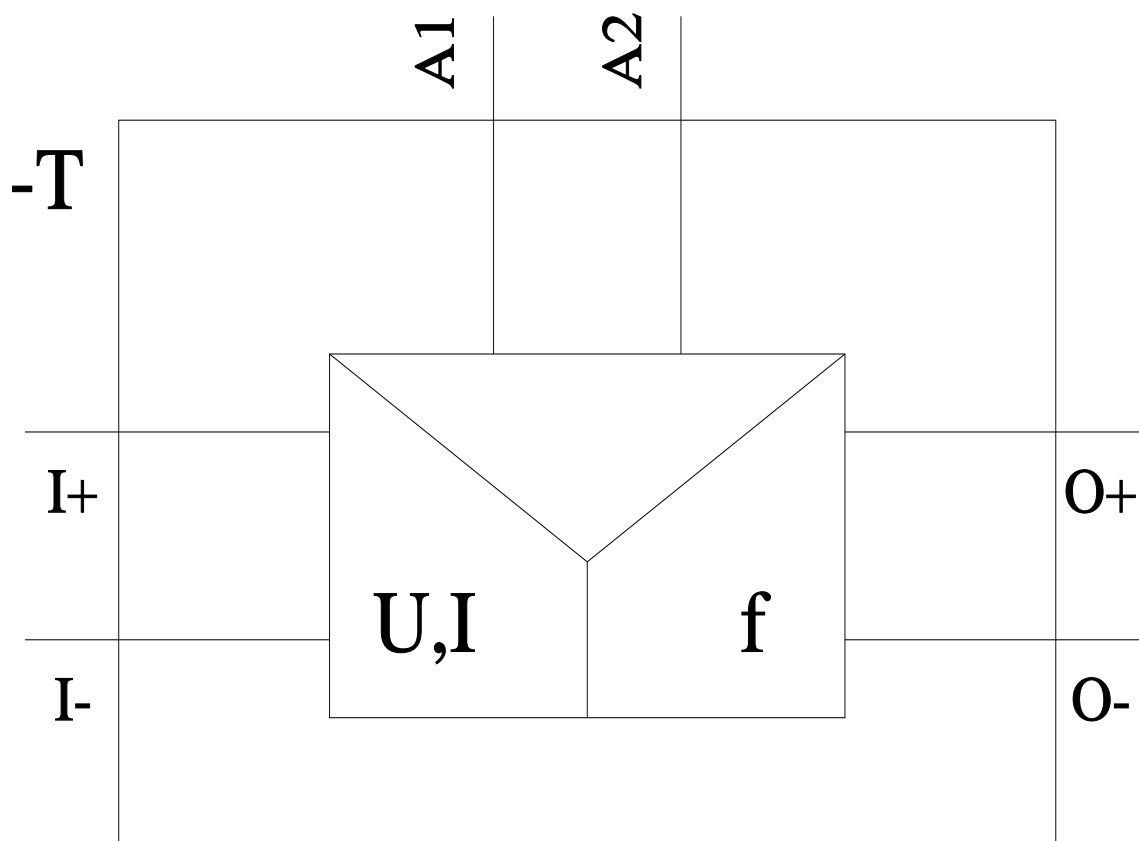
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RS7005-2KE00&lang=en

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3RS7005-2KE00/manual>





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