

Signal converter 24-240 V AC/DC, 3-way separation Input: 0-10 V, 0/4 - 20 mA Output: 0-50/100 Hz/1/10 kHz Screw terminal



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	0.34 W
Surge voltage resistance rated value	4 000 V
Protection class IP	IP20
Shock resistance	
• acc. to IEC 60068-2-27	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	
• 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
Limit frequency	30 Hz

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	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	
• 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

Galvanic isolation	
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	
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Type of electrical connection	screw-type terminals
Type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • solid • finely stranded with core end processing • at AWG conductors solid 	1x (0.25 ... 2.5 mm ²) 1x (0.25 ... 1.5 mm ²) 1 x (20 ... 14)
Connectable conductor cross-section	
<ul style="list-style-type: none"> • solid • finely stranded with core end processing 	0.25 ... 2.5 mm ² 0.25 ... 1.5 mm ²
AWG number as coded connectable conductor cross section	
<ul style="list-style-type: none"> • solid 	20 ... 14
Tightening torque	
<ul style="list-style-type: none"> • with screw-type terminals 	0.5 ... 0.6 N·m

Installation/ mounting/ dimensions

Mounting position	any
Mounting type	snap-on mounting
Height	93 mm
Width	17.5 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	
<ul style="list-style-type: none"> • maximum 	2 000 m

Relative humidity

- during operation

10 ... 95 %

Certificates/ approvals

General Product Approval



CSA



UL



EG-Konf.

Declaration of Conformity

[Miscellaneous](#)

Test Certificates

[Type Test Certificates/Test Report](#)

Marine / Shipping

other



[Confirmation](#)

Further information

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

www.siemens.com/sirius/catalogs

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RS7005-1KW00>

Cax online generator

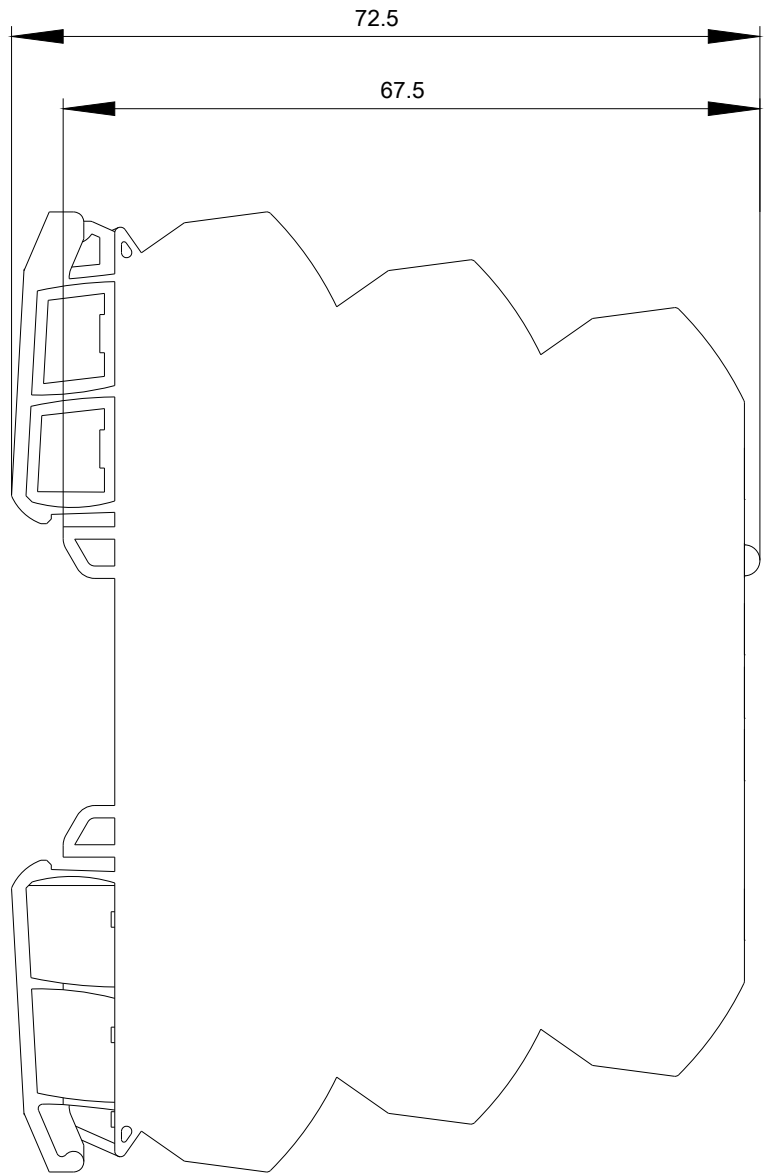
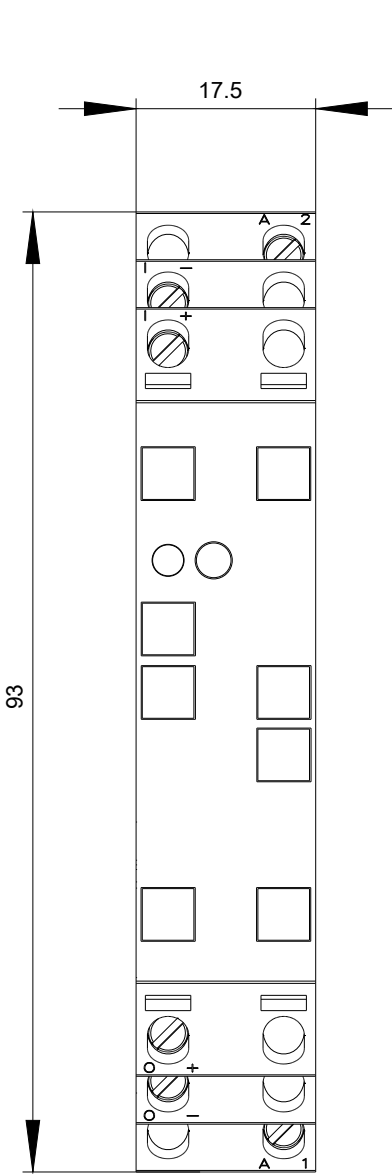
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RS7005-1KW00>

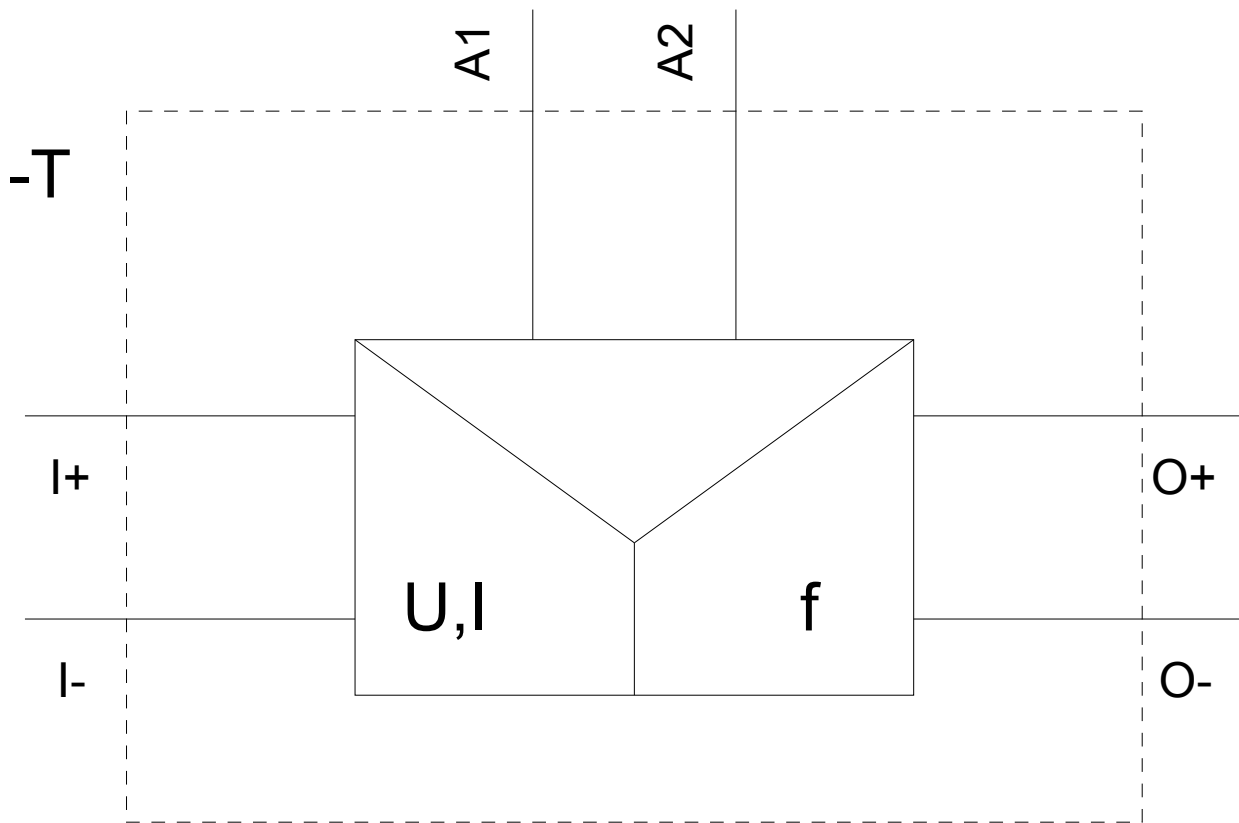
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RS7005-1KW00>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RS7005-1KW00&lang=en





last modified:

07/26/2019