

Signal converter 24-240 V AC/DC, 3-way separation Input: 0-10 V, 0/4-20 mA Output: 0-10 V, 0/4 - 20 mA 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	0.5 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	
<ul style="list-style-type: none"> • rated value 	60 ... 50 Hz
Operating range factor supply voltage rated value	
<ul style="list-style-type: none"> • at AC at 50 Hz • at AC at 60 Hz • at DC 	0.8 ... 1.1 0.8 ... 1.1 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	0 ... 10 V, 0 ... 20 mA, 4 ... 20 mA
Type of signal at output	0 ... 10 V, 0 ... 20 mA, 4 ... 20 mA
Input impedance of current input maximum	100 Ω
Input impedance of voltage input minimum	330 kΩ

Outputs	
Load	
<ul style="list-style-type: none"> • at voltage output minimum • at the current output maximum 	2 kΩ 500 Ω

Electromagnetic compatibility	
EMC emitted interference	
<ul style="list-style-type: none"> • acc. to IEC 60947-1 	Environment B
EMI immunity	
<ul style="list-style-type: none"> • acc. to IEC 60947-1 	corresponds to degree of severity 3
Conducted interference	
<ul style="list-style-type: none"> • due to burst acc. to IEC 61000-4-4 • due to conductor-conductor surge acc. to IEC 61000-4-5 	1 kV 5/50 ns 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	
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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

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 conductors solid	1 x (20 ... 14)
Connectable conductor cross-section	
• solid	0.25 ... 2.5 mm ²
• 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
Mounting type	snap-on mounting
Height	93 mm
Width	17.5 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
Relative humidity	
• during operation	10 ... 95 %

Certificates/ approvals

General Product Approval	Declaration of Conformity	Test Certificates
 CSA  UL  EAC  EG-Konf.	Miscellaneous	Type Test Certificates/Test Report

Marine / Shipping	other
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[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=3RS7005-1FW00>

Cax online generator

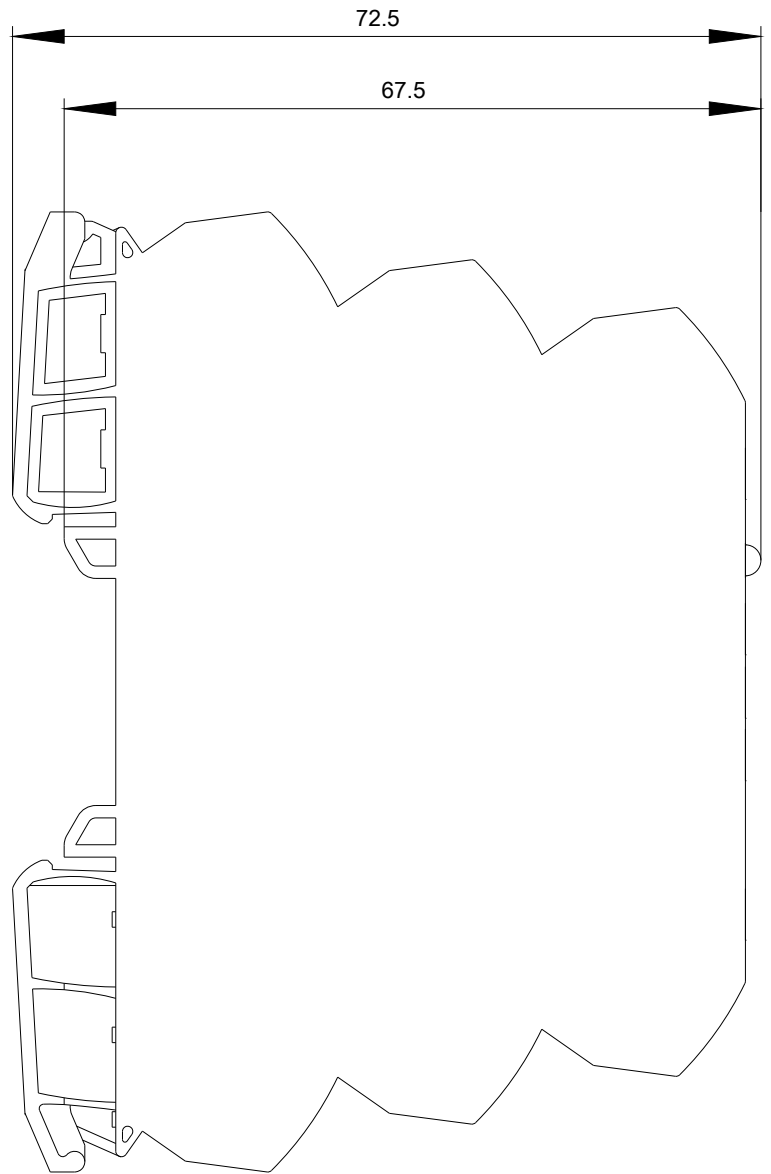
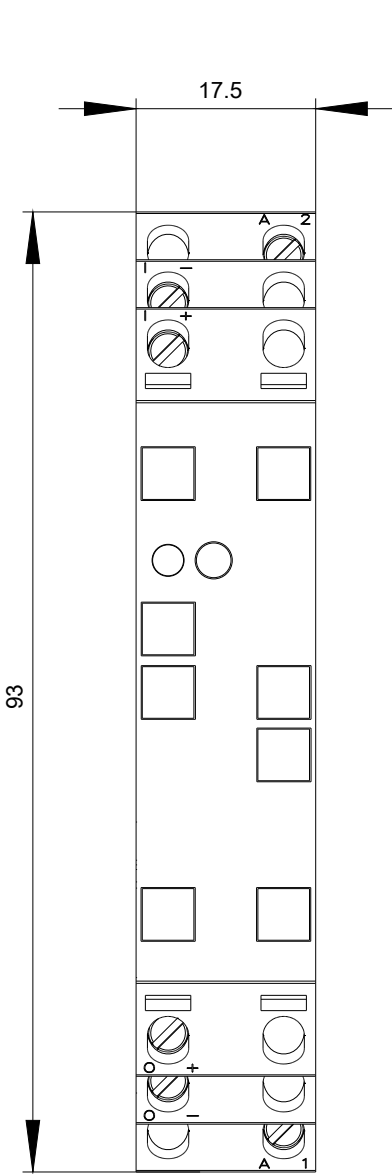
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RS7005-1FW00>

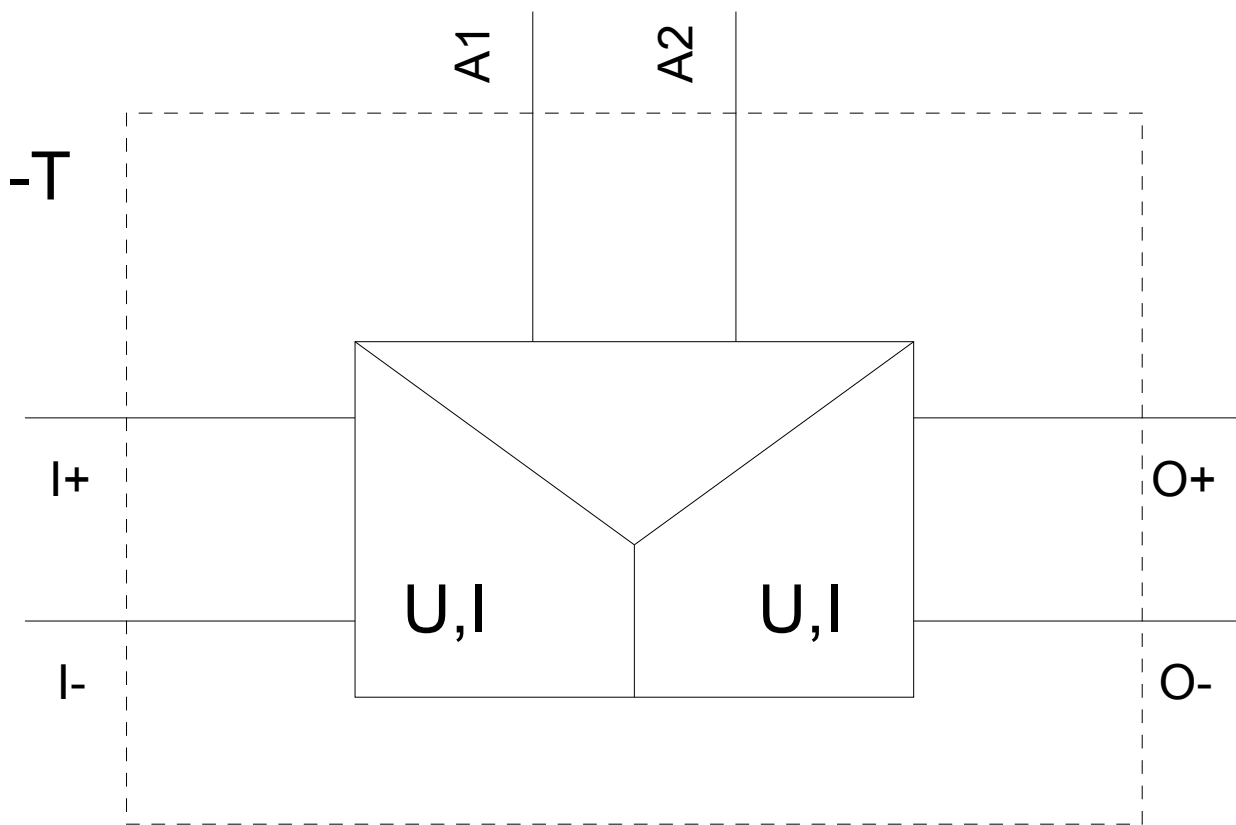
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RS7005-1FW00>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RS7005-1FW00&lang=en





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