

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 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	0.5 W
Insulation voltage	
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • acc. to IEC 60068-2-27 	sinusoidal half-wave 15g / 11 ms
Vibration resistance	
<ul style="list-style-type: none"> • acc. to IEC 60068-2-6 	6 ... 150 Hz: 2 g

Reference code acc. to DIN EN 81346-2	T
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
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	
• at voltage output minimum	2 kΩ
• at the current output maximum	500 Ω
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

<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • between entrance and outlet 	Yes
<ul style="list-style-type: none"> • between the outputs 	No
<ul style="list-style-type: none"> • between the inputs 	No
<ul style="list-style-type: none"> • between the voltage supply and other circuits 	Yes

Connections/ Terminals

Type of electrical connection	spring-loaded terminals
Type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • solid 	1x (0.25 ... 2.5 mm ²)
<ul style="list-style-type: none"> • finely stranded with core end processing 	1x (0.25 ... 1.5 mm ²)
<ul style="list-style-type: none"> • finely stranded without core end processing 	1x (0.25 ... 2.5 mm ²)
<ul style="list-style-type: none"> • at AWG conductors solid 	1 x (20 ... 14)
<ul style="list-style-type: none"> • at AWG conductors stranded 	1x (20 ... 14)
Connectable conductor cross-section	
<ul style="list-style-type: none"> • solid 	0.25 ... 2.5 mm ²
<ul style="list-style-type: none"> • finely stranded with core end processing 	0.25 ... 1.5 mm ²
<ul style="list-style-type: none"> • finely stranded without core end processing 	0.25 ... 2.5 mm ²
AWG number as coded connectable conductor cross section	
<ul style="list-style-type: none"> • solid 	20 ... 14
<ul style="list-style-type: none"> • stranded 	20 ... 14

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 	0 mm
	0 mm
	0 mm
	0 mm
	0 mm

— 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
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	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,...)

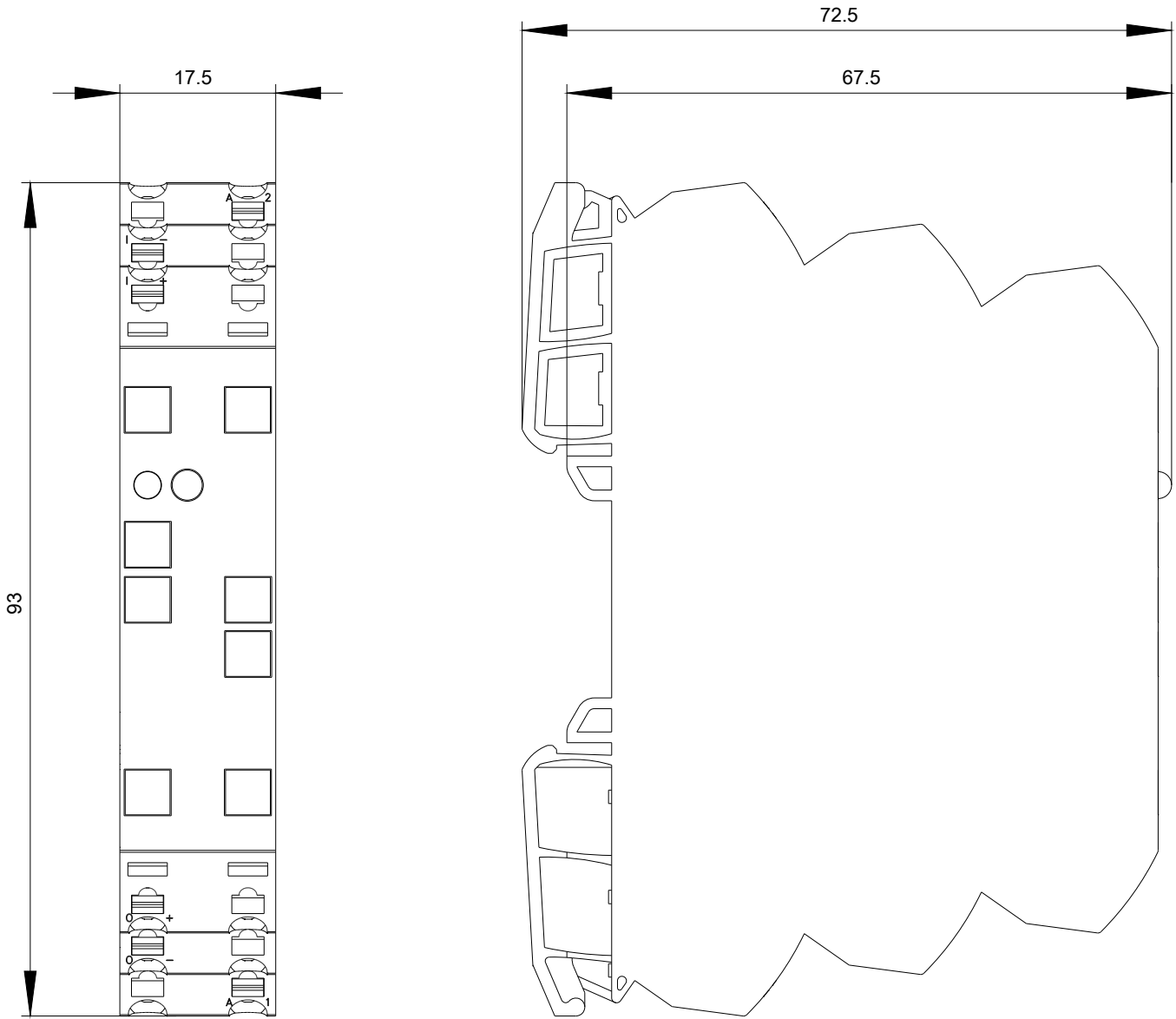
<https://www.siemens.com/ic10>

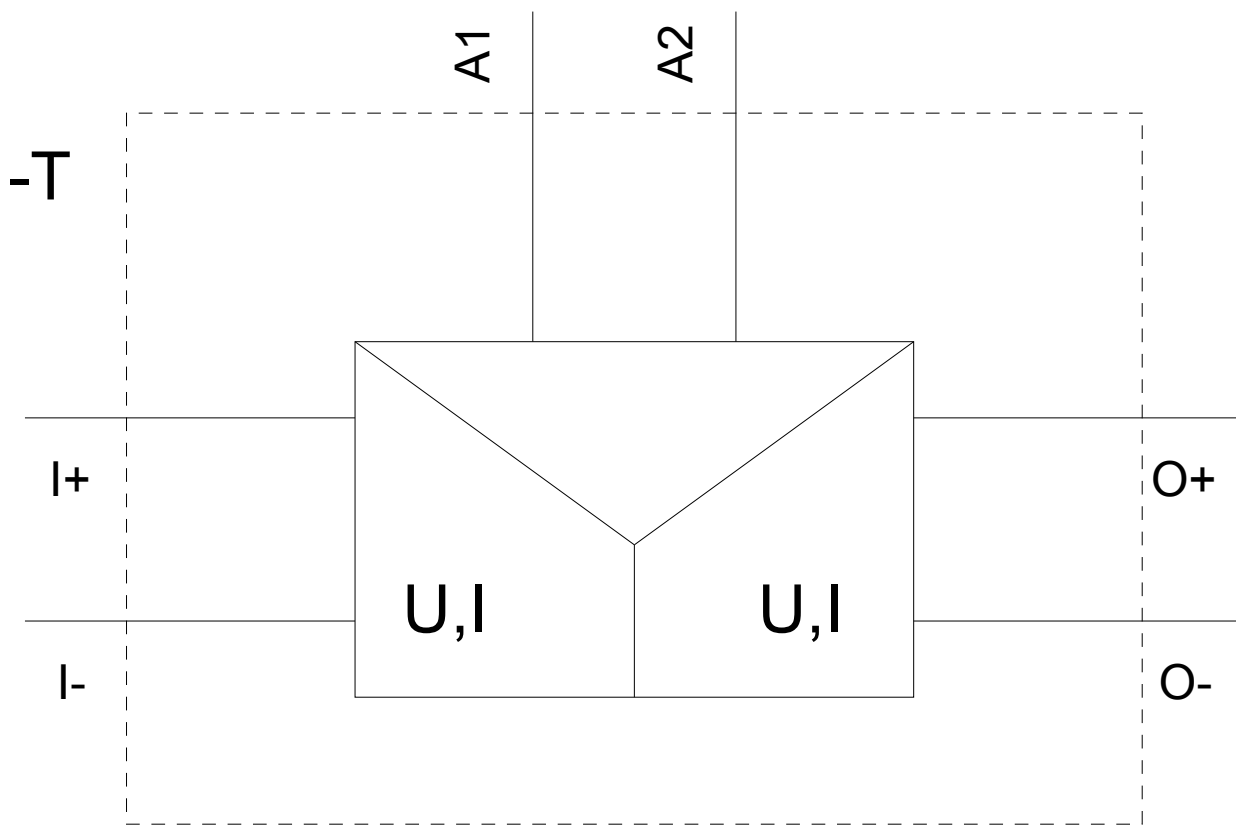
Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RS7005-2FW00>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RS7005-2FW00>





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