

SIGNAL CONVERTER 24 V AC/DC, 3-WAY
ISOLATION IN: 4 TO 20 MA OUT: 0 TO 10 V SCREW
TERMINAL



Figure similar

Article number		
Product brand name		SIRIUS
Product category		Signal converter
Product designation		Single-range converters
Design of the product		Single-range converters, active
Product type designation		3RS70

General technical data		
Display version LED		Yes
Number of channels		1
Consumed active power	W	0.29
Insulation voltage		
<ul style="list-style-type: none"> • for overvoltage category III according to IEC 60664 — with degree of pollution 3 rated value 	V	50
Surge voltage resistance rated value	V	2 500
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		6 ... 150 Hz: 2 g
<ul style="list-style-type: none"> • acc. to IEC 60068-2-6 		
Equipment marking		K
<ul style="list-style-type: none"> • acc. to DIN EN 61346-2 • acc. to DIN EN 81346-2 		T

Supply voltage

Supply voltage at AC		
<ul style="list-style-type: none"> • at 50 Hz rated value 	V	24
<ul style="list-style-type: none"> • at 60 Hz rated value 	V	24
Supply voltage at DC rated value	V	24
Supply voltage frequency		
<ul style="list-style-type: none"> • rated value 	Hz	60 ... 50
Operating range factor supply voltage rated value		
<ul style="list-style-type: none"> • at AC at 50 Hz 		0.8 ... 1.1
<ul style="list-style-type: none"> • at AC at 60 Hz 		0.8 ... 1.1
<ul style="list-style-type: none"> • at DC 		0.8 ... 1.1

Precision

Relative metering precision	%	0.1
Relative linearity deviation	%	0.05
Temperature drift per °C	%/°C	0.015
Voltage ripple maximum	mV	20
Limit frequency	Hz	30
Settling time for 1 % deviation	ms	17
Rise time	ms	6

Main circuit

Type of voltage		AC/DC
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Inputs/ Outputs

Input voltage	V	30
Property of the output Short-circuit proof		Yes
Type of signal at input		4 ... 20 mA
Type of signal at output		0 ... 10 V

Outputs

Load		
<ul style="list-style-type: none"> • at voltage output minimum 	kΩ	2

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

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		screw-type 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"> • at AWG conductors solid 		1 x (20 ... 14)
Connectable conductor cross-section		
<ul style="list-style-type: none"> • solid 	mm ²	0.25 ... 2.5
<ul style="list-style-type: none"> • finely stranded with core end processing 	mm ²	0.25 ... 1.5
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 	N·m	0.5 ... 0.6

Installation/ mounting/ dimensions





Mounting position		any
Mounting type		snap-on mounting
Height	mm	93
Width	mm	6.2
Depth	mm	72.5
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 	mm	0 0 0 0 0 0 0

— Backwards	mm	0
— upwards	mm	0
— at the side	mm	0
— downwards	mm	0
• for live parts		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	0
— downwards	mm	0
— at the side	mm	0

Ambient conditions

Installation altitude at height above sea level		
• maximum	m	2 000
Ambient temperature		
• during operation	°C	-25 ... +60
• during storage	°C	-40 ... +80
• during transport	°C	-40 ... +80
Relative humidity		
• during operation	%	10 ... 95

Certificates/approvals

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

Further information

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

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RS7003-1AE00>

Cax online generator

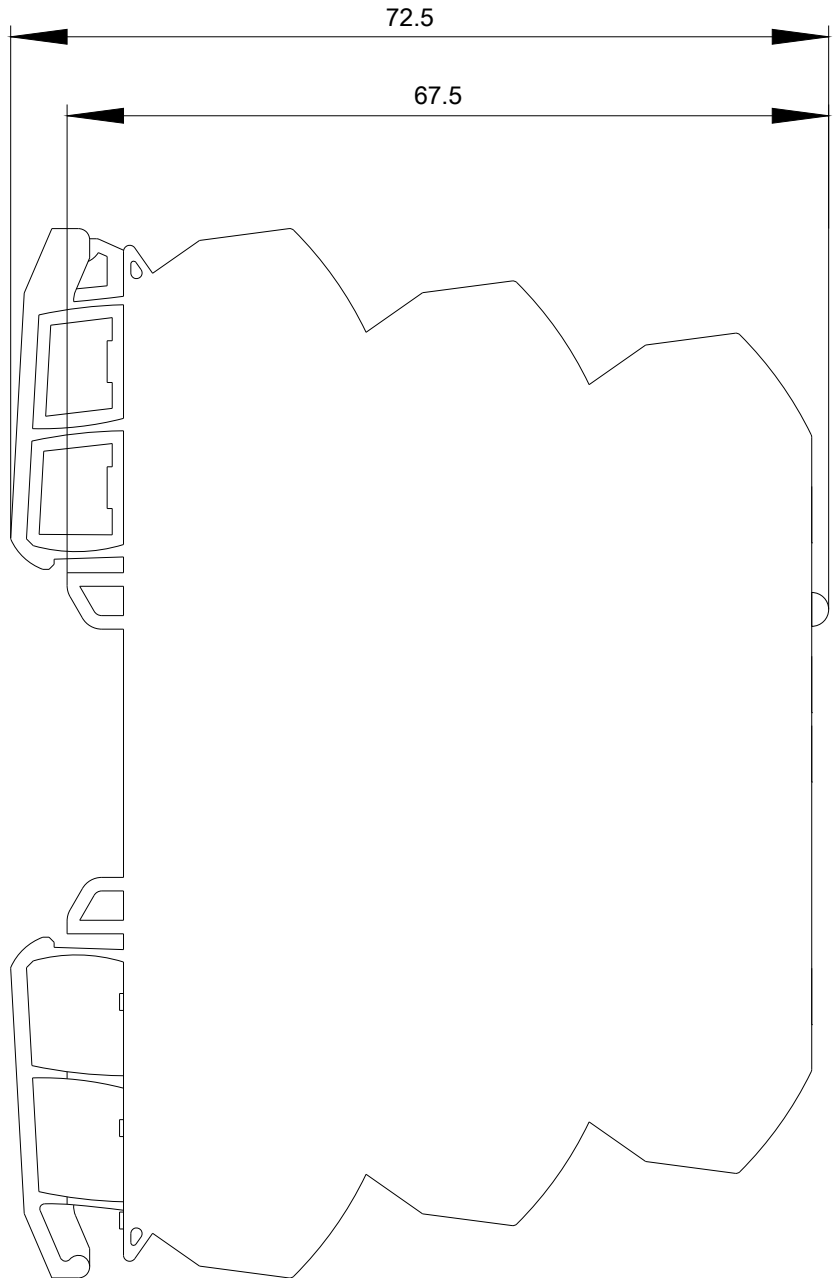
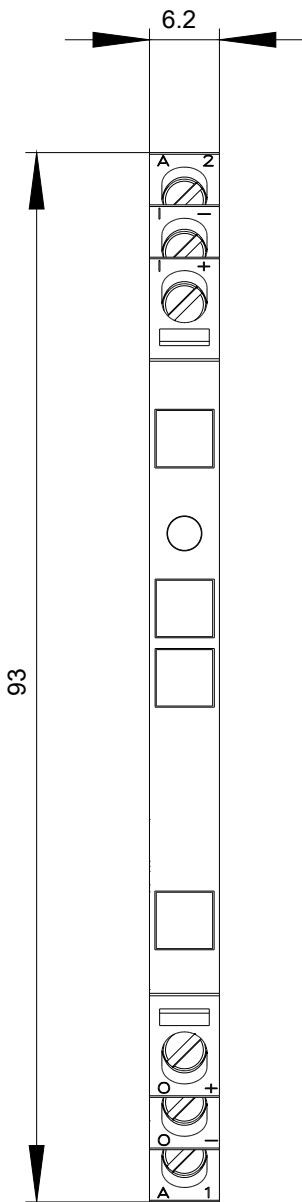
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RS7003-1AE00>

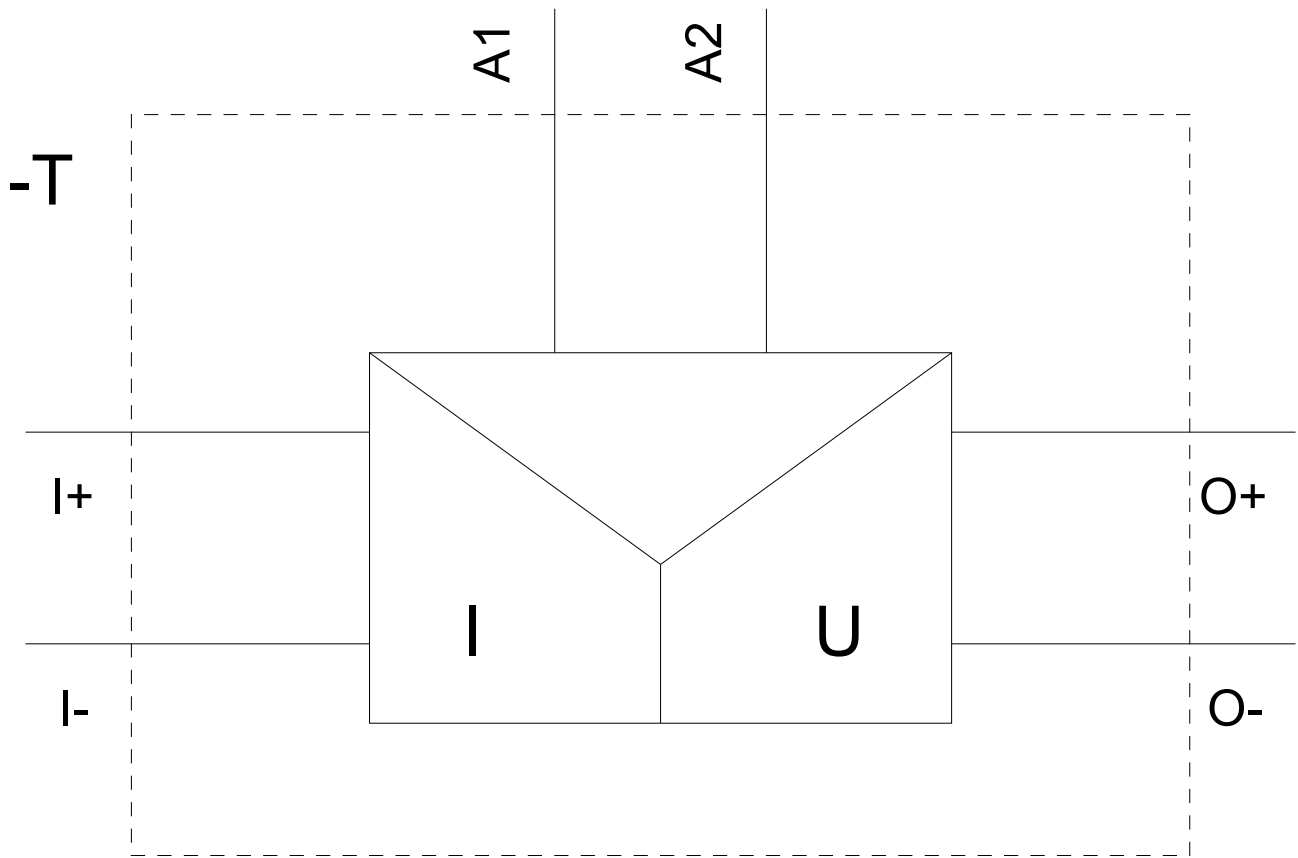
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RS7003-1AE00>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RS7003-1AE00&lang=en





last modified:

07/26/2017