



Signal converter with Manual-Auto switch 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, with manual/automatic switching and setting potentiometer
product type designation	3RS70
General technical data	
display version LED	Yes
number of channels	1
consumed active power	0.5 W
insulation voltage 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 acc. to IEC 60068-2-27	sinusoidal half-wave 15g / 11 ms
vibration resistance acc. to IEC 60068-2-6	6 ... 150 Hz: 2 g
reference code acc. to IEC 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	
output 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 acc. to IEC 60947-1	Environment B
EMC immunity 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-based interference 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 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	screw-type terminals
type of connectable conductor cross-sections	
<ul style="list-style-type: none"> solid finely stranded with core end processing at AWG cables solid 	1x (0.25 ... 2.5 mm ²) 1x (0.25 ... 1.5 mm ²) 1 x (20 ... 14)
<ul style="list-style-type: none"> connectable conductor cross-section solid connectable conductor cross-section finely stranded with core end processing 	0.25 ... 2.5 mm ² 0.25 ... 1.5 mm ²
<ul style="list-style-type: none"> AWG number as coded connectable conductor cross section solid 	20 ... 14
<ul style="list-style-type: none"> tightening torque with screw-type terminals 	0.5 ... 0.6 N·m
Installation/ mounting/ dimensions	
mounting position	any
fastening method	snap-on mounting
height	93 mm
width	17.5 mm
depth	75 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 	0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 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
• ambient temperature during storage	-40 ... +80 °C
• ambient temperature during transport	-40 ... +80 °C
relative humidity during operation	10 ... 95 %

Certificates/ approvals

General Product Approval	Declaration of Conformity	Test Certificates
  	Miscellaneous	 EG-Konf. 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=3RS7025-1FW00>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RS7025-1FW00>

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

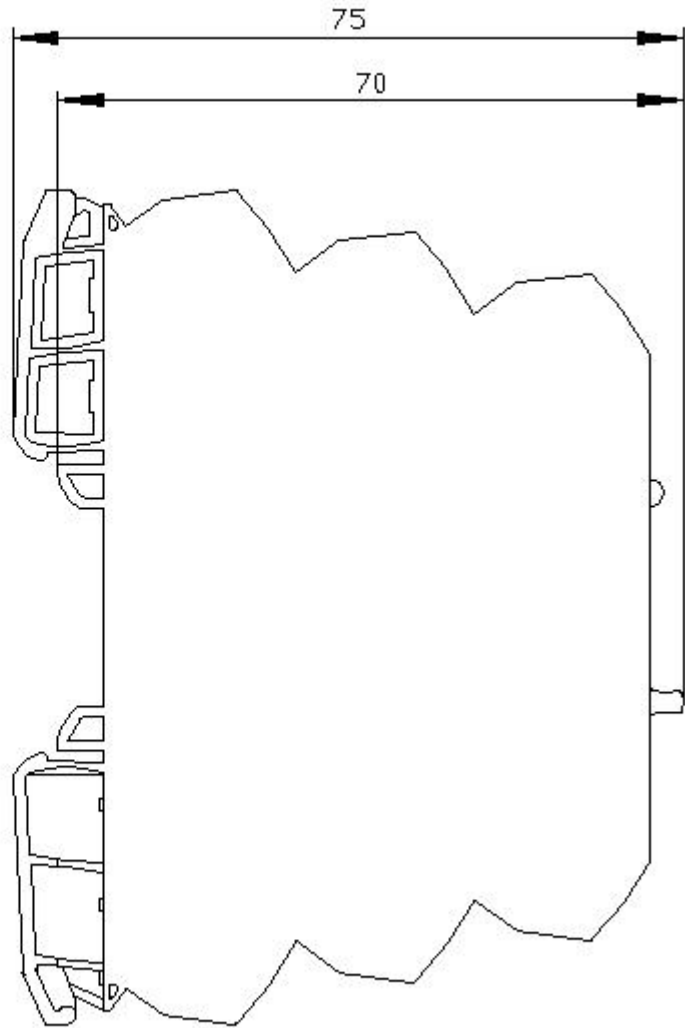
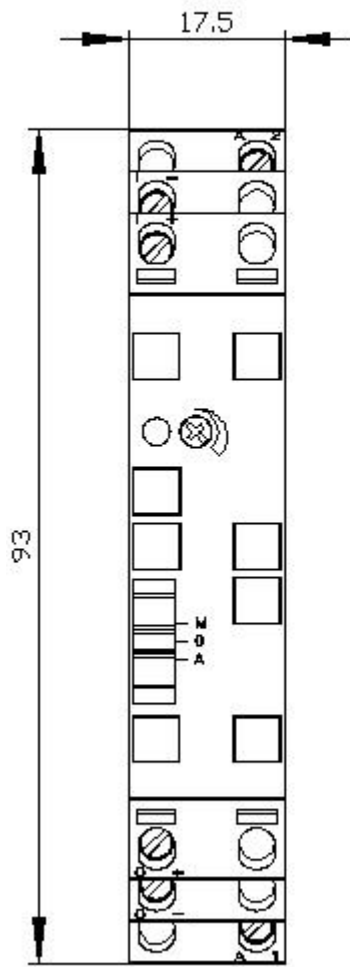
<https://support.industry.siemens.com/cs/ww/en/ps/3RS7025-1FW00>

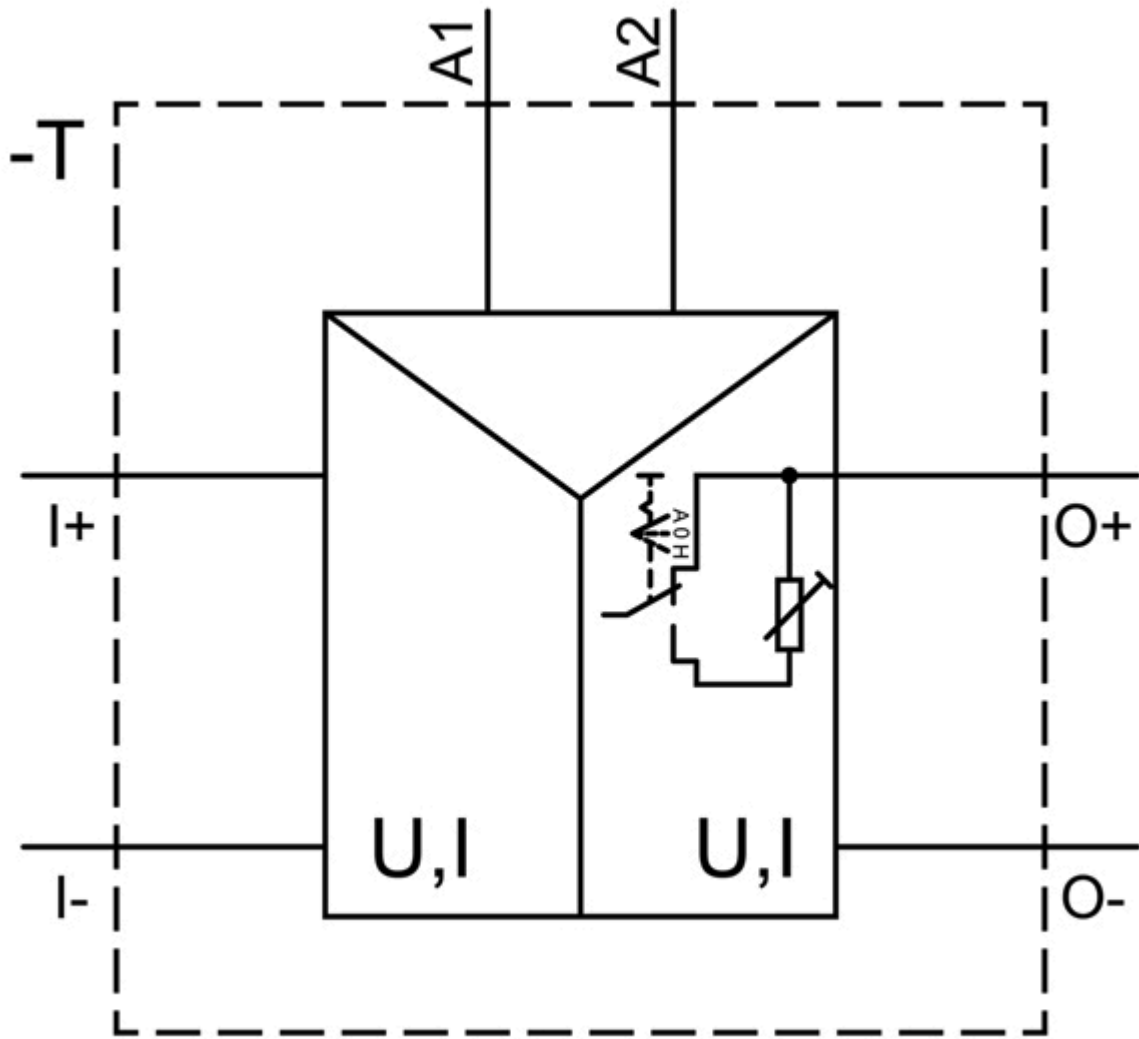
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RS7025-1FW00&lang=en

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3RS7025-1FW00/manual>





last modified:

5/15/2020 [↗](#)