



Separation amplifier Loop power isolator, 1-channel input: 4-20 mA output: 4-20 mA Width 6.2 mm screw terminal

product brand name	SIRIUS
product category	Signal converter
product designation	Single-range converters
design of the product	passive
product type designation	3RS70
General technical data	
display version LED	No
number of channels	1
insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value	50 V
voltage drop at operating equipment	4.1 V
surge voltage resistance rated value	1 500 V
protection class IP	IP20
shock resistance according to IEC 60068-2-27	sinusoidal half-wave 15g / 11 ms
vibration resistance according to IEC 60068-2-6	6 ... 150 Hz: 2 g
reference code according to IEC 81346-2	T
Substance Prohibitance (Date)	03/25/2015
Precision	
relative metering precision	0.1 %
temperature drift per °C	0.015 %/°C
voltage ripple maximum	5 mV
settling time for 1 % deviation	6 ms
Inputs/ Outputs	
input voltage	30 V
property of the output short-circuit proof	No
type of signal at input	4 ... 20 mA
type of signal at output	4 ... 20 mA
input impedance of current input maximum	100 Ω
output load	
• at the current output maximum	1 000 Ω
influence of the output load on measuring accuracy	0.06 %/100 Ω
Electromagnetic compatibility	
EMC emitted interference according to IEC 60947-1	Environment B
EMC immunity according to IEC 60947-1	corresponds to degree of severity 3
conducted interference	
• due to burst according to IEC 61000-4-4	1 kV 5/50 ns
• due to conductor-conductor surge according to IEC 61000-4-5	1 kV
field-based interference according to IEC 61000-4-3	10 V/m
electrostatic discharge according to IEC 61000-4-2	6 kV contact discharge / 8 kV air discharge
Galvanic isolation	

design of the electrical isolation	2 paths
galvanic isolation	
• between input and output	Yes
• between the outputs	No
• between the inputs	No
• between the voltage supply and other circuits	No

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 cables 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
fastening method	snap-on mounting
height	93 mm
width	6.2 mm
depth	71 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
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
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[Confirmation](#)



Test Certificates	Marine / Shipping	other
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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=3RS7020-1ET00>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RS7020-1ET00>

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

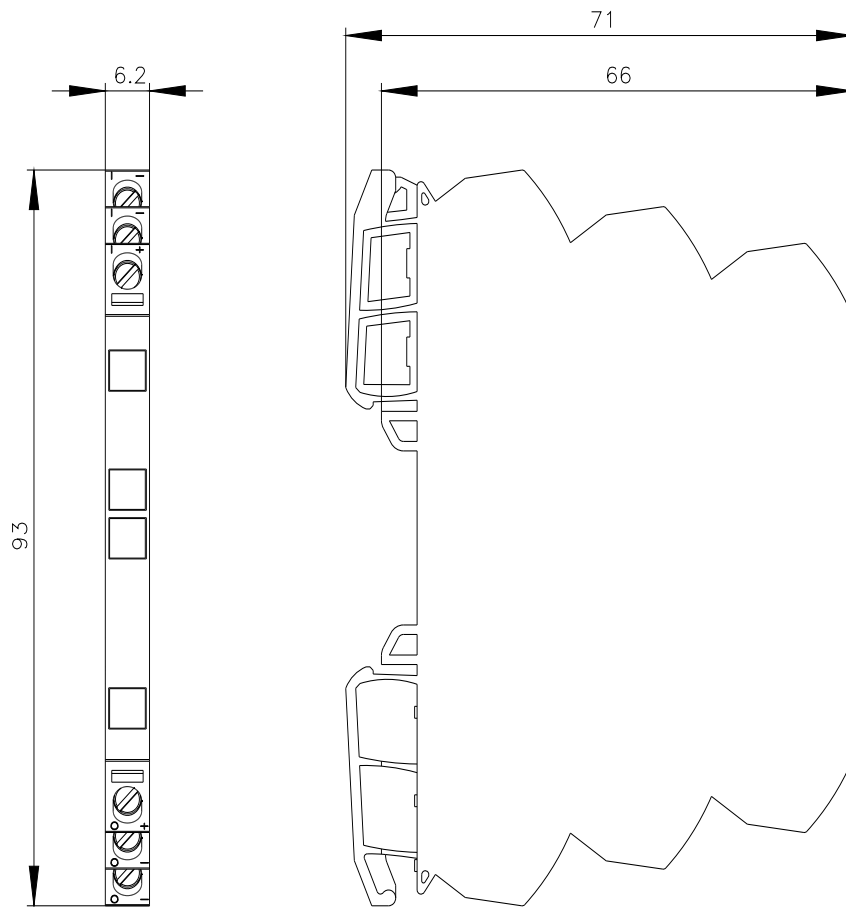
<https://support.industry.siemens.com/cs/ww/en/ps/3RS7020-1ET00>

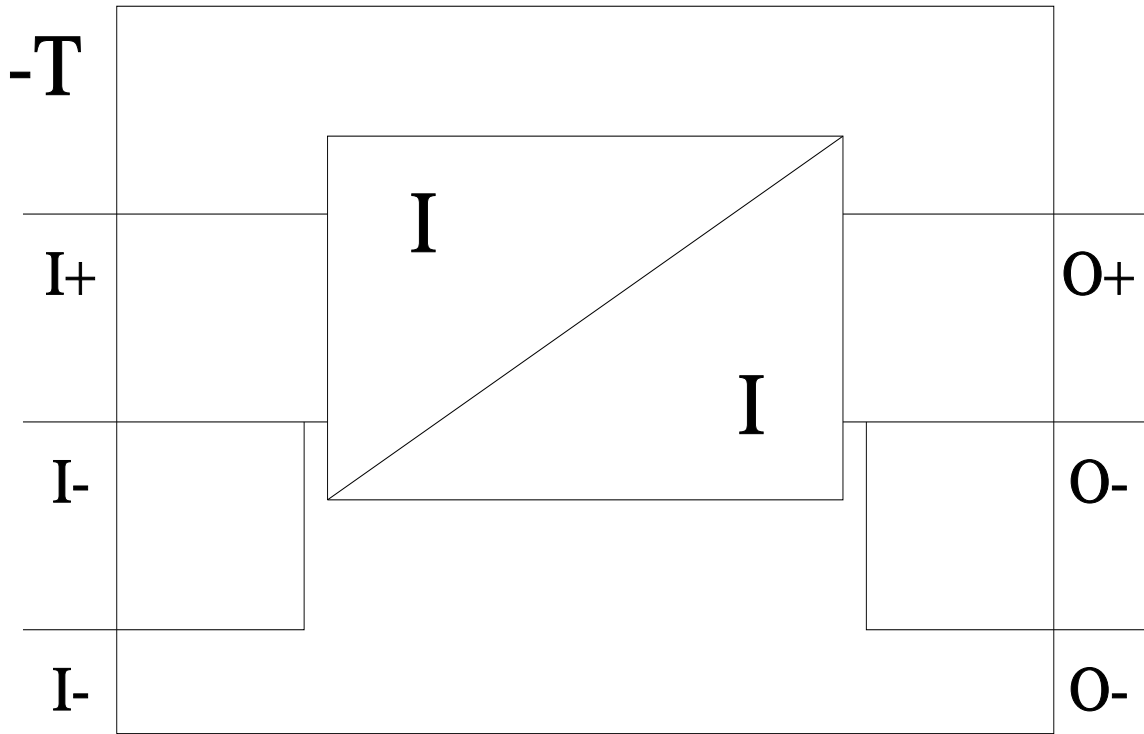
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RS7020-1ET00&lang=en

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3RS7020-1ET00/manual>





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