

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	
<ul style="list-style-type: none"> for overvoltage category III according to IEC 60664 — with degree of pollution 3 rated value 	50 V
Voltage drop at operating resource	4.1 V
Surge voltage resistance rated value	1 500 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
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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

Outputs

Load	
<ul style="list-style-type: none"> at the current output maximum 	1 000 Ω
Influence of the load on measuring accuracy	0.06 %/100 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 	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	2 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 	No

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 • finely stranded with core end processing 	<p>0.25 ... 2.5 mm²</p> <p>0.25 ... 1.5 mm²</p>
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 	0.5 ... 0.6 N·m

Installation/ mounting/ dimensions

Mounting position	any
Mounting type	snap-on mounting
Height	93 mm
Width	6.2 mm
Depth	71 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 — downwards • for live parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side 	<p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p>





Ambient conditions

Installation altitude at height above sea level	
<ul style="list-style-type: none"> • maximum 	2 000 m
Ambient temperature	
<ul style="list-style-type: none"> • during operation • during storage • during transport 	<p>-25 ... +60 °C</p> <p>-40 ... +80 °C</p> <p>-40 ... +80 °C</p>
Relative humidity	

- during operation

10 ... 95 %

Certificates/ approvals

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



[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=3RS7020-1ET00>

Cax online generator

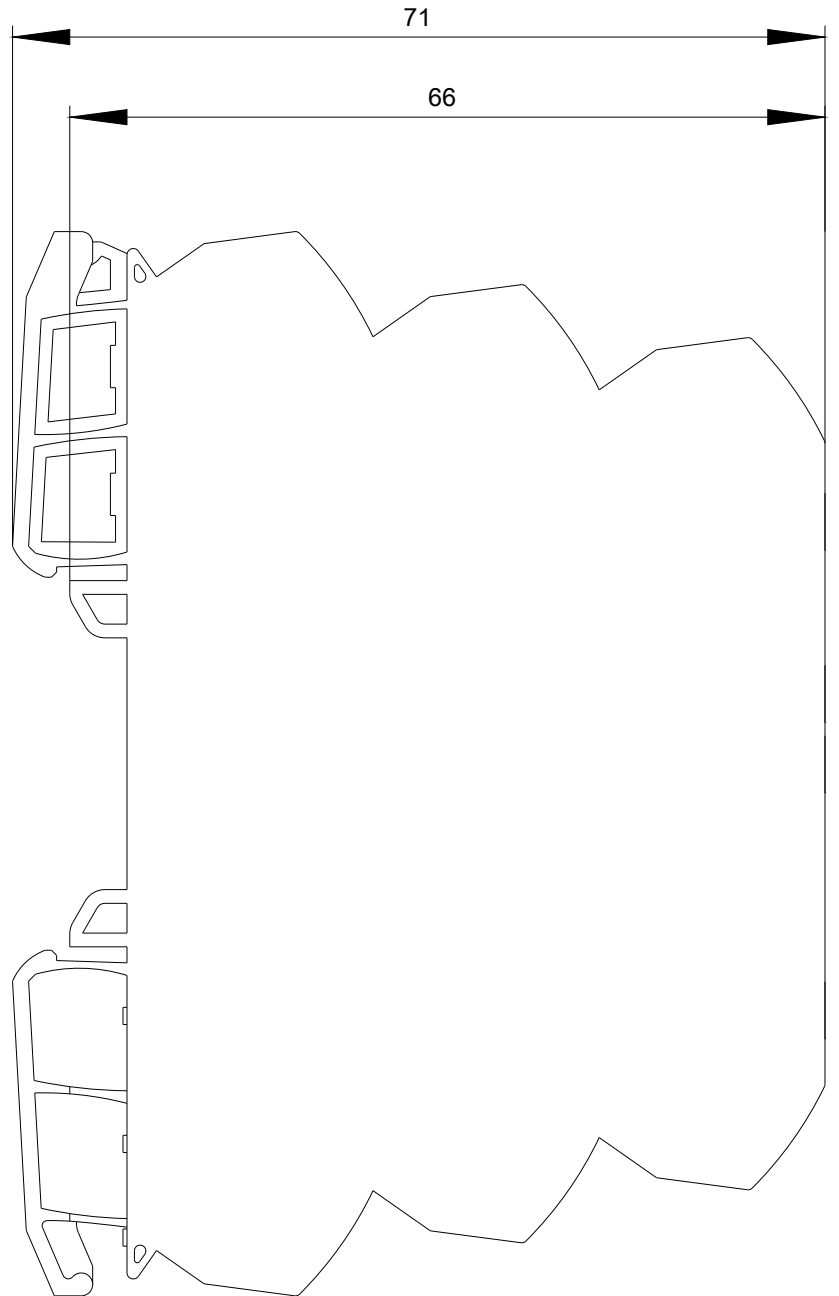
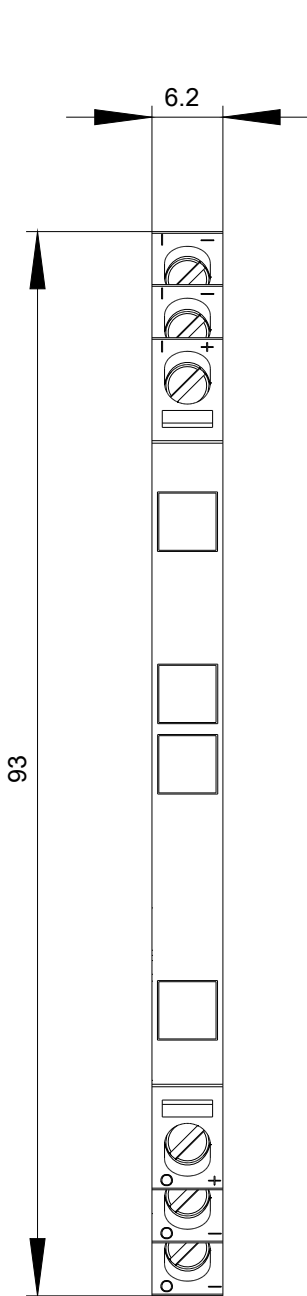
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RS7020-1ET00>

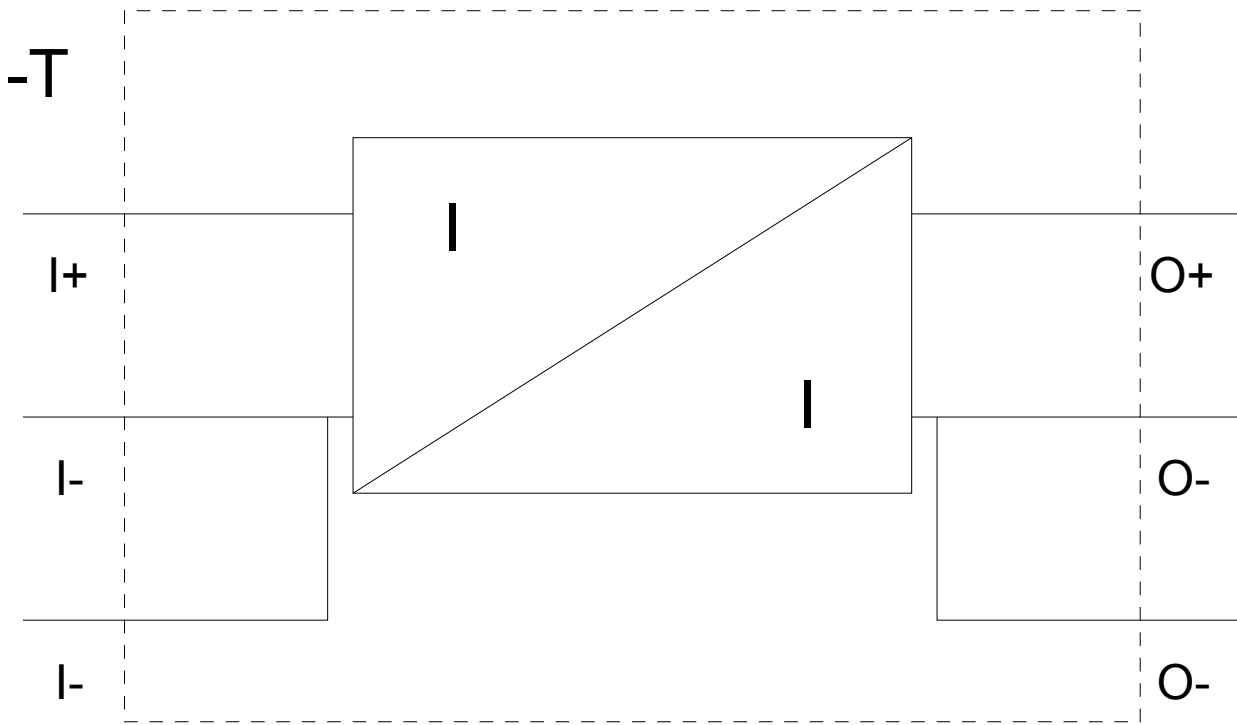
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<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





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