



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		
<ul style="list-style-type: none"> ● between input and output ● between the outputs ● between the inputs ● between the voltage supply and other circuits 	<ul style="list-style-type: none"> Yes No No No 	
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 	<ul style="list-style-type: none"> 1x (0.25 ... 2.5 mm²) 1x (0.25 ... 1.5 mm²) 1 x (20 ... 14) 	
connectable conductor cross-section		
<ul style="list-style-type: none"> ● solid ● finely stranded with core end processing 	<ul style="list-style-type: none"> 0.25 ... 2.5 mm² 0.25 ... 1.5 mm² 	
AWG number as coded connectable conductor cross section		
<ul style="list-style-type: none"> ● 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		
<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 	<ul style="list-style-type: none"> 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 	
Ambient conditions		
installation altitude at height above sea level maximum	2 000 m	
ambient temperature		
<ul style="list-style-type: none"> ● during operation ● during storage ● during transport 	<ul style="list-style-type: none"> -25 ... +60 °C -40 ... +80 °C -40 ... +80 °C 	
relative humidity during operation	10 ... 95 %	
Certificates/ approvals		
General Product Approval	Declaration of Conformity	Test Certificates



[Confirmation](#)



[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

Characteristic: Derating

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

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