

Separation amplifier 24 V AC/DC, 3-way separation input: 0-20 mA
output: 4-20 mA Spring-type terminal (push-in)



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

General technical data	
Display version LED	Yes
number of channels	1
consumed active power	0.29 W
<ul style="list-style-type: none"> — insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value 	50 V
Surge voltage resistance rated value	2 500 V
<ul style="list-style-type: none"> • 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
Supply voltage	
Supply voltage at AC	
• at 50 Hz rated value	24 V
• at 60 Hz rated value	24 V
Supply voltage at DC rated value	24 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 ... 20 mA
Type of signal at output	4 ... 20 mA
Input impedance of current input maximum	100 Ω
Outputs	
Load	
• at the current output maximum	500 Ω
Electromagnetic compatibility	
EMC emitted interference	
• acc. to IEC 60947-1	Environment B
EMI immunity	
• acc. to IEC 60947-1	corresponds to degree of severity 3
Conducted interference	
• due to burst acc. to IEC 61000-4-4	1 kV 5/50 ns
• 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	
<ul style="list-style-type: none"> • design of the electrical isolation 	3 paths
<ul style="list-style-type: none"> • Galvanic isolation between entrance and outlet 	Yes
<ul style="list-style-type: none"> • galvanic isolation between the outputs 	No
<ul style="list-style-type: none"> • Galvanic isolation between the inputs 	No
<ul style="list-style-type: none"> • Galvanic isolation between the voltage supply and other circuits 	Yes
Connections/ Terminals	
<ul style="list-style-type: none"> • type of electrical connection 	spring-loaded terminals
<ul style="list-style-type: none"> • type of connectable conductor cross-sections solid 	1x (0.25 ... 2.5 mm ²)
<ul style="list-style-type: none"> • Type of connectable conductor cross-sections finely stranded with core end processing 	1x (0.25 ... 1.5 mm ²)
<ul style="list-style-type: none"> • Type of connectable conductor cross-sections finely stranded without core end processing 	1x (0.25 ... 2.5 mm ²)
<ul style="list-style-type: none"> • Type of connectable conductor cross-sections at AWG conductors solid 	1 x (20 ... 14)
<ul style="list-style-type: none"> • Type of connectable conductor cross-sections at AWG conductors stranded 	1x (20 ... 14)
<ul style="list-style-type: none"> • connectable conductor cross-section solid 	0.25 ... 2.5 mm ²
<ul style="list-style-type: none"> • connectable conductor cross-section finely stranded with core end processing 	0.25 ... 1.5 mm ²
<ul style="list-style-type: none"> • connectable conductor cross-section finely stranded without core end processing 	0.25 ... 2.5 mm ²
AWG number as coded connectable conductor cross section	
<ul style="list-style-type: none"> • solid 	20 ... 14
<ul style="list-style-type: none"> • stranded 	20 ... 14
Installation/ mounting/ dimensions	
<ul style="list-style-type: none"> • mounting position 	any
Mounting type	snap-on mounting
Height	93 mm
Width	6.2 mm
Depth	72.5 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 	0 mm 0 mm 0 mm 0 mm 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

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	
• 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	Test Certificates
 CSA  UL	 EAC  EG-Konf.	Miscellaneous 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>

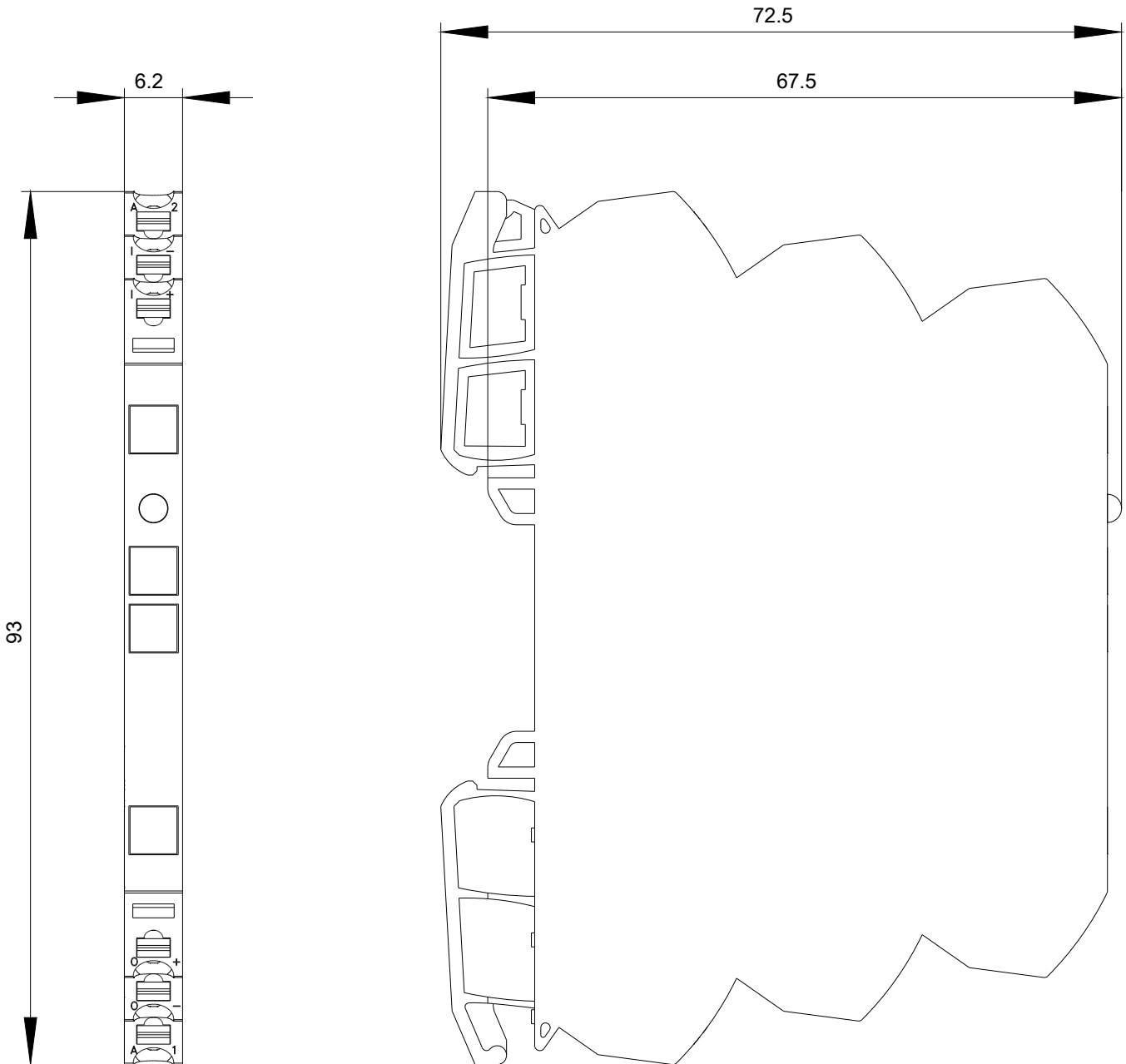
Industry Mall (Online ordering system)

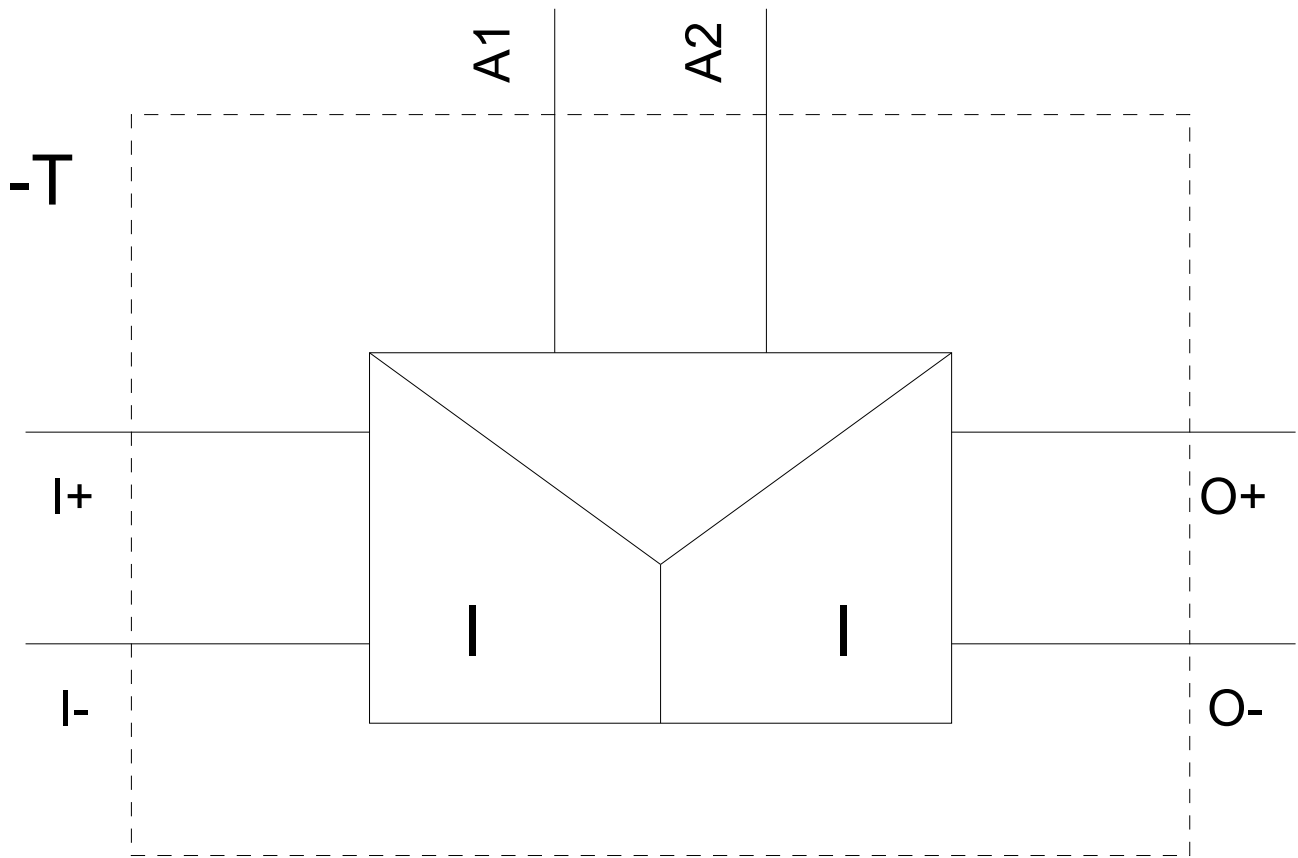
<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RS7002-2DE00>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RS7002-2DE00>

Characteristic: Derating





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