SIEMENS

Data sheet 3RS7025-1FE00



Separation amplifier with Manual-Auto switch 24 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 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	product brand name	SIRIUS
design of the product product type designation 3RS70 General technical data display version LED yes number of channels 1 consumed active power insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value surge voltage resistance rated value protection class IP shock resistance according to IEC 6068-2-7 sinusoidal half-wave 15g / 11 ms vibration resistance according to IEC 6068-2-7 sinusoidal half-wave 15g / 11 ms vibration resistance according to IEC 6008-2-8 reference code according to IEC 6008-2-2 T 3Usbatance Prohibitance (Date) 30325/2015 Supply voltage supply voltage at AC • at 50 Hz rated value • at 60 Hz rated value 24 V supply voltage at DC rated value 24 V supply voltage at DC rated value 24 V supply voltage frequency rated value 00 50 Hz operating range factor supply voltage rated value • at AC at 50 Hz • at C5 0Hz • at DC • at C5 0Hz • at DC • at C6 0Hz • at DC •	product category	Signal converter
product type designation General technical data display version LED 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 surge voltage resistance rated value 9 surge voltage resistance rated value 1 surge voltage resistance according to IEC 6068-2-27 shock resistance according to IEC 6068-2-27 sinusoidal half-wave 15g / 11 ms vibration resistance according to IEC 6068-2-6 6 150 Hz: 2 g reference code according to IEC 6068-2-6 1 Supply voltage 1 supply voltage at AC 1 at 50 Hz rated value 2 4 V 2 at 50 Hz rated value 2 4 V 2 supply voltage at DC rated value 2 4 V 2 supply voltage at DC rated value 2 4 V 3 supply voltage at DC rated value 3 at 60 Hz rated value 4 at AC at 50 Hz 5 at AC at 50 Hz 6 at AC at 50 Hz 7 at BC 7	product designation	multi-range converters
Ceneral technical data Yes Academic Yes	design of the product	active, switchable, with manual/automatic switching and setting potentiometer
display version LED	product type designation	3RS70
1	General technical data	
Consumed active power 0.5 W	display version LED	Yes
insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value surge voltage resistance rated value protection class IP shock resistance according to IEC 60068-2-7 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) Supply voltage supply voltage supply voltage at AC • at 50 Hz rated value • at 60 Hz rated value • at 60 Hz rated value • at AC at 50 Hz • at AC at 50 Hz • at AC at 60 Hz • at DC Precision relative metering precision relative metering precision relative linearity deviation 20 mV simple woltage 17 ms rise time 6 ms Main circuit type of voltage Input voltage AC/DC Inputs/Outputs Input voltage 4 A000 V 1P20 4 4000 V 1P20 sinusoidal half-wave 15g / 11 ms 4 000 V 1P20 5 insusoidal half-wave 15g / 11 ms 6 insusoidal half-wave 15g / 11 ms 5 insusoidal half-wave 15g / 11 ms 6 insusoidal half-wave 15g / 11 ms 5 insusoidal half-wave 15g / 11 ms 6	number of channels	1
Surge voltage resistance rated value 4 000 V	consumed active power	0.5 W
protection class IP		50 V
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 Supply voltage Supply voltage supply voltage at AC 4 to 9 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 60 50 Hz operating range factor supply voltage rated value 0.8 1.1 • 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 0.1 % 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 4C/DC	surge voltage resistance rated value	4 000 V
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 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 0.8 1.1 • 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 0.1 % 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 Inputs/ Outputs input voltage	protection class IP	IP20
reference code according to IEC 81346-2 Substance Prohibitance (Date) Supply voltage supply voltage at AC • at 50 Hz rated value • at 60 Hz rated value • at 60 Hz rated value supply voltage at DC rated value • at AC at 50 Hz • at DC Precision relative metering precision relative metering deviation temperature drift per °C voltage ripple maximum 20 mV limit frequency settling time for 1 % deviation 17 ms rise time Main circuit type of voltage input voltage 30 V	shock resistance according to IEC 60068-2-27	sinusoidal half-wave 15g / 11 ms
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Supply voltage at AC • at 50 Hz rated value • 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 • at AC at 60 Hz • at DC Precision relative metering precision relative linearity deviation temperature drift per °C voltage ripple maximum 20 mV limit frequency settling time for 1 % deviation rise time Main circuit type of voltage AC/DC Inputs/ Outputs input voltage 30 V	reference code according to IEC 81346-2	Т
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supply voltage frequency rated value operating range factor supply voltage rated value • at AC at 50 Hz • at AC at 60 Hz • at DC O.8 1.1 • at DC Precision relative metering precision relative linearity deviation temperature drift per °C voltage ripple maximum limit frequency settling time for 1 % deviation rise time Main circuit type of voltage Inputs/ Outputs input voltage 30 V	at 60 Hz rated value	24 V
operating range factor supply voltage rated value • at AC at 50 Hz • at AC at 60 Hz • at DC 0.8 1.1 • at DC Precision relative metering precision relative linearity deviation temperature drift per °C voltage ripple maximum 20 mV limit frequency settling time for 1 % deviation 17 ms rise time 6 ms Main circuit type of voltage Inputs/ Outputs input voltage 30 V	supply voltage at DC rated value	24 V
■ at AC at 50 Hz ■ at AC at 60 Hz ■ at DC ■ 0.8 1.1 Precision relative metering precision relative linearity deviation temperature drift per °C voltage ripple maximum limit frequency settling time for 1 % deviation 17 ms rise time Main circuit type of voltage Inputs/ Outputs input voltage ■ 0.8 1.1 0.9 1.1 0.9 1	supply voltage frequency rated value	60 50 Hz
■ at AC at 60 Hz ■ 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	operating range factor supply voltage rated value	
● at DC Precision relative metering precision relative linearity deviation temperature drift per °C voltage ripple maximum limit frequency settling time for 1 % deviation rise time Main circuit type of voltage Inputs/ Outputs input voltage 30 V	• at AC at 50 Hz	0.8 1.1
relative metering precision relative linearity deviation temperature drift per °C voltage ripple maximum 20 mV limit frequency settling time for 1 % deviation 17 ms rise time 6 ms Main circuit type of voltage Inputs/ Outputs input voltage 30 V	• at AC at 60 Hz	0.8 1.1
relative metering precision relative linearity deviation temperature drift per °C voltage ripple maximum limit frequency settling time for 1 % deviation rise time 6 ms Main circuit type of voltage Inputs/ Outputs input voltage 30 V	• at DC	0.8 1.1
relative linearity deviation temperature drift per °C voltage ripple maximum 20 mV limit frequency settling time for 1 % deviation 17 ms rise time 6 ms Main circuit type of voltage AC/DC Inputs/ Outputs input voltage 30 V	Precision	
temperature drift per °C voltage ripple maximum 20 mV limit frequency 30 Hz settling time for 1 % deviation rise time 6 ms Main circuit type of voltage AC/DC Inputs/ Outputs input voltage 30 V	relative metering precision	0.1 %
voltage ripple maximum limit frequency settling time for 1 % deviation rise time 6 ms Main circuit type of voltage Inputs/ Outputs input voltage 30 V	relative linearity deviation	0.05 %
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	temperature drift per °C	0.015 %/°C
settling time for 1 % deviation rise time 6 ms Main circuit type of voltage AC/DC Inputs/ Outputs input voltage 30 V	voltage ripple maximum	20 mV
rise time 6 ms Main circuit type of voltage AC/DC Inputs/ Outputs input voltage 30 V	limit frequency	30 Hz
Main circuit type of voltage AC/DC Inputs/ Outputs input voltage 30 V	settling time for 1 % deviation	17 ms
type of voltage AC/DC Inputs/ Outputs input voltage 30 V	rise time	6 ms
Inputs/ Outputs input voltage 30 V	Main circuit	
input voltage 30 V	type of voltage	AC/DC
· •	Inputs/ Outputs	
property of the output short-circuit proof Yes	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
output load	000 Na2
at voltage output minimum	2 kΩ
at the current output maximum	500 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	3 paths
galvanic isolation	
 between input and output 	Yes
 between the outputs 	No
• between the inputs	No
between the voltage supply and other circuits	Yes
Connections/ Terminals	
type of electrical connection	screw-type terminals
type of connectable conductor cross-sections	
• solid	1x (0.25 2.5 mm²)
 finely stranded with core end processing 	1x (0.25 1.5 mm²)
for 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 mm²
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	17.5 mm
depth	75 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



Confirmation









Test Certificates

Marine / Shipping

other

Type Test Certificates/Test Report



Confirmation

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

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=3RS7025-1FE00

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RS7025-1FE00

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

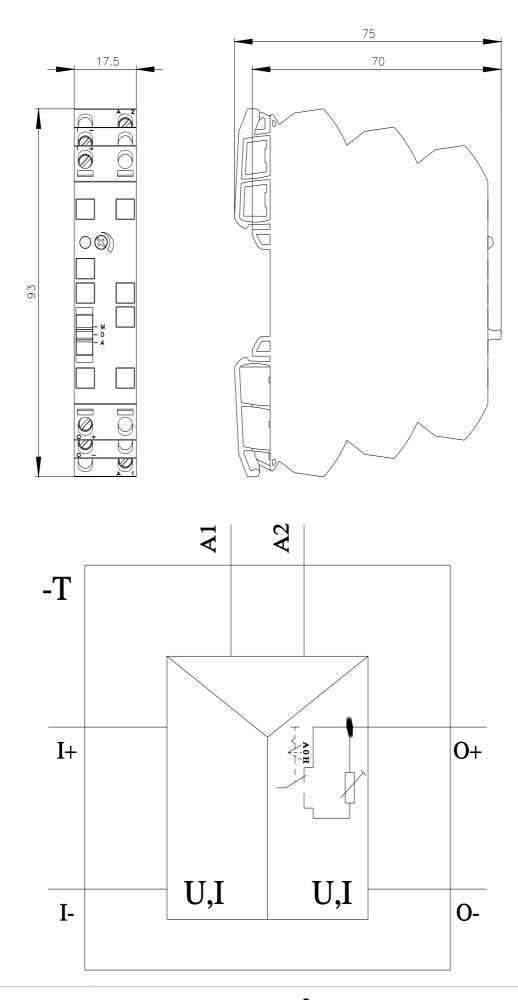
https://support.industry.siemens.com/cs/ww/en/ps/3RS7025-1FE00

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

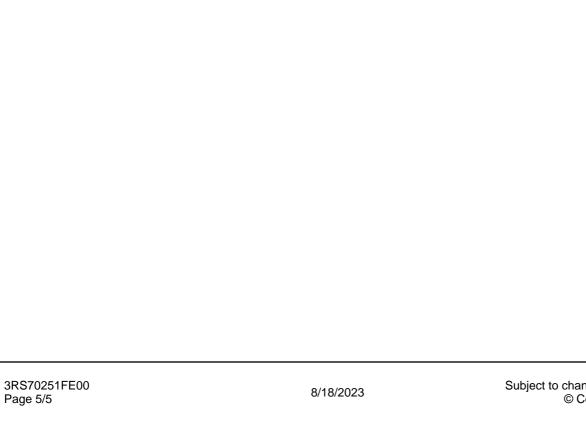
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RS7025-1FE00&lang=en

Characteristic: Derating

https://support.industry.siemens.com/cs/ww/en/ps/3RS7025-1FE00/manual



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