














Solid-state time-delayed auxiliary switch ON delay Relay 1 NC + 1 NO
24...240 V AC/DC Time range 0.05...100 s Can be snapped on at the front
For 3RT2 S00-S3 contactors and 3RH2 S00 contactor relays Screw
terminal Varistor for attenuation of the contactor coils integrated

product brand name	SIRIUS
product designation	Solid-state time-delay auxiliary switch
product type designation	3RA28
General technical data	
size of contactor can be combined company-specific	S00, S0, S2, S3
product component semi-conductor output	No
product extension required remote control	No
product extension optional remote control	No
insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value	300 V
test voltage for isolation test	1.5 kV
degree of pollution	3
surge voltage resistance rated value	4 kV
test voltage for surge voltage test	4 800 V
protection class IP of the terminal	IP20
shock resistance acc. to IEC 60068-2-27	15g / 11 ms
vibration resistance acc. to IEC 60068-2-6	10 ... 59 Hz: 0.35 mm, 60 ... 150 Hz: 2g
mechanical service life (switching cycles) typical	10 000 000
mechanical service life (switching cycles) <ul style="list-style-type: none"> with contactor 3R.2 of frame size S00 with contactor 3R.2 of frame size S0 with contactor 3R.2 of frame size S2 with contactor 3R.2 of frame size S3 	10 000 000 10 000 000 10 000 000 10 000 000
electrical endurance (switching cycles) at AC-15 at 230 V typical	100 000
electrical endurance (switching cycles) <ul style="list-style-type: none"> with contactor 3R.2 of frame size S00 with contactor 3R.2 of frame size S0 with contactor 3R.2 of frame size S2 with contactor 3R.2 of frame size S3 	100 000 100 000 100 000 100 000
adjustable time	0.05 ... 100 s
relative setting accuracy relating to full-scale value	15 %
recovery time	150 ms
reference code acc. to IEC 81346-2	K
relative repeat accuracy	1 %
Substance Prohibitance (Date)	01.10.2009 00:00:00
Product Function	
product function star-delta circuit	No

Control circuit/ Control	
type of voltage of the control supply voltage	AC/DC
control supply voltage 1 at AC	
• at 50 Hz	24 ... 240 V
• at 60 Hz	24 ... 240 V
control supply voltage frequency 1	50 ... 60 Hz
control supply voltage 1	
• at DC	24 ... 240 V
operating range factor control supply voltage rated value at DC	
• initial value	0.85
• full-scale value	1.1
operating range factor control supply voltage rated value at AC at 50 Hz	
• initial value	0.85
• full-scale value	1.1
operating range factor control supply voltage rated value at AC at 60 Hz	
• initial value	0.85
• full-scale value	1.1
design of the surge suppressor	with varistor
Switching Function	
switching function	
• ON-delay	Yes
• ON-delay/instantaneous contact	No
• passing make contact	No
• passing make contact/instantaneous contact	No
• OFF delay	No
switching function	
• flashing symmetrically with interval start/instantaneous	No
• flashing symmetrically with interval start	No
• flashing symmetrically with pulse start/instantaneous	No
• flashing symmetrically with pulse start	No
• flashing asymmetrically with interval start	No
• flashing asymmetrically with pulse start	No
switching function	
• constant clock cycle with pulse start	No
• constant clock cycle with interval start	No
switching function	
• variably clocked with pulse start	No
• variably clocked with interval start	No
switching function	
• star-delta circuit with delay time	No
• star-delta circuit	No
switching function with control signal	
• additive ON-delay	No
• passing break contact	No
• passing break contact/instantaneous	No
• OFF delay	No
• OFF delay/instantaneous	No
• pulse delayed	No
• pulse delayed/instantaneous	No
• pulse-shaping	No
• pulse-shaping/instantaneous	No
• additive ON-delay/instantaneous	No
• ON-delay/OFF-delay	No
• ON-delay/OFF-delay/instantaneous	No

<ul style="list-style-type: none"> • passing make contact 	No
<ul style="list-style-type: none"> • passing make contact/instantaneous contact 	No
switching function of interval relay with control signal	
<ul style="list-style-type: none"> • retrotriggerable with deactivated control signal/instantaneous contact 	No
<ul style="list-style-type: none"> • retrotriggerable with switched-on control signal 	No
<ul style="list-style-type: none"> • retrotriggerable with switched-on control signal/instantaneous contact 	No
<ul style="list-style-type: none"> • retriggerable with deactivated control signal 	No
design of the control terminal non-floating	Yes
Short-circuit protection	
design of the fuse link for short-circuit protection of the auxiliary switch required	fuse gL/gG: 4 A
Auxiliary circuit	
material of switching contacts	AgNi
number of NC contacts	
<ul style="list-style-type: none"> • delayed switching 	1
number of NO contacts	
<ul style="list-style-type: none"> • delayed switching 	1
operational current of auxiliary contacts at AC-15	
<ul style="list-style-type: none"> • maximum 	3 A
<ul style="list-style-type: none"> • at 24 V 	3 A
<ul style="list-style-type: none"> • at 250 V 	3 A
operational current of auxiliary contacts as NC contact at AC-15	
<ul style="list-style-type: none"> • at 24 V 	3 A
<ul style="list-style-type: none"> • at 250 V 	3 A
operational current of auxiliary contacts as NO contact at AC-15	
<ul style="list-style-type: none"> • at 24 V 	3 A
<ul style="list-style-type: none"> • at 250 V 	3 A
operational current of auxiliary contacts at DC-13	1 ... 0.1
operational current of auxiliary contacts at DC-13	
<ul style="list-style-type: none"> • at 24 V 	1 A
<ul style="list-style-type: none"> • at 125 V 	0.2 A
<ul style="list-style-type: none"> • at 250 V 	0.1 A
operating frequency with 3RT2 contactor maximum	2 500 1/h
contact rating of auxiliary contacts according to UL	B300 / R300
influence of the surrounding temperature	±1 %
power supply influence	±1 %
Main circuit	
type of voltage	AC/DC
Inputs/ Outputs	
product function	
<ul style="list-style-type: none"> • at the relay outputs switchover delayed/without delay 	No
<ul style="list-style-type: none"> • non-volatile 	No
Electromagnetic compatibility	
EMC immunity acc. to IEC 61812-1	Environment A (industrial area)
conducted interference	
<ul style="list-style-type: none"> • due to burst acc. to IEC 61000-4-4 	2 kV network connection / 1 kV control connection
<ul style="list-style-type: none"> • due to conductor-earth surge acc. to IEC 61000-4-5 	2 kV
<ul style="list-style-type: none"> • due to conductor-conductor surge acc. to IEC 61000-4-5 	1 kV
field-based interference acc. to IEC 61000-4-3	10 V/m
electrostatic discharge acc. to IEC 61000-4-2	8 kV
Safety related data	
protection class IP on the front acc. to IEC 60529	IP20
type of insulation	Basic insulation

category acc. to EN 954-1	none
Connections/ Terminals	
product component removable terminal for auxiliary and control circuit	Yes
type of electrical connection for auxiliary and control circuit	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 • at AWG cables stranded 	0.5 ... 4 mm ² , 2x (0.5 ... 2.5 mm ²) 1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²) 2x (20 ... 14) 2x (20 ... 14)
connectable conductor cross-section <ul style="list-style-type: none"> • solid • finely stranded with core end processing • finely stranded without core end processing 	0.5 ... 4 mm ² 0.5 ... 2.5 mm ² 0.25 ... 1.5 mm ²
AWG number as coded connectable conductor cross section <ul style="list-style-type: none"> • solid • stranded 	20 ... 14 20 ... 14
Installation/ mounting/ dimensions	
mounting position	any (like contactor)
fastening method	clip-on
height	38 mm
width	45 mm
depth	74 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 	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 	-25 ... +60 °C -40 ... +85 °C -40 ... +85 °C
relative humidity during operation	0 ... 95 %
Certificates/ approvals	
<div>General Product Approval</div> <div>      </div>	
Declaration of Conformity	
UK Declaration of Conformity	

Test Certificates		Marine / Shipping			
Type Test Certificates/Test Report	Special Test Certificate				
Marine / Shipping		other		Railway	
			Confirmation	Vibration and Shock	

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=3RA2813-1FW10>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2813-1FW10>

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

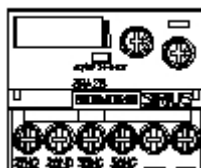
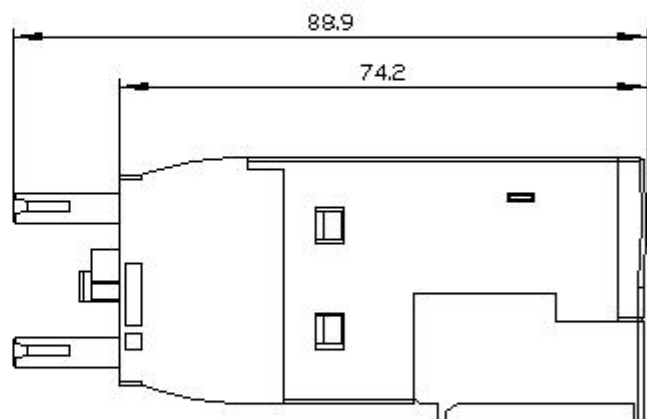
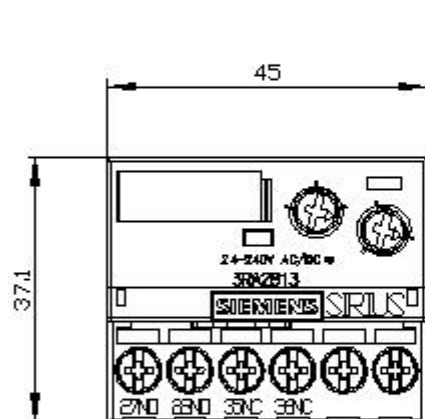
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2813-1FW10>

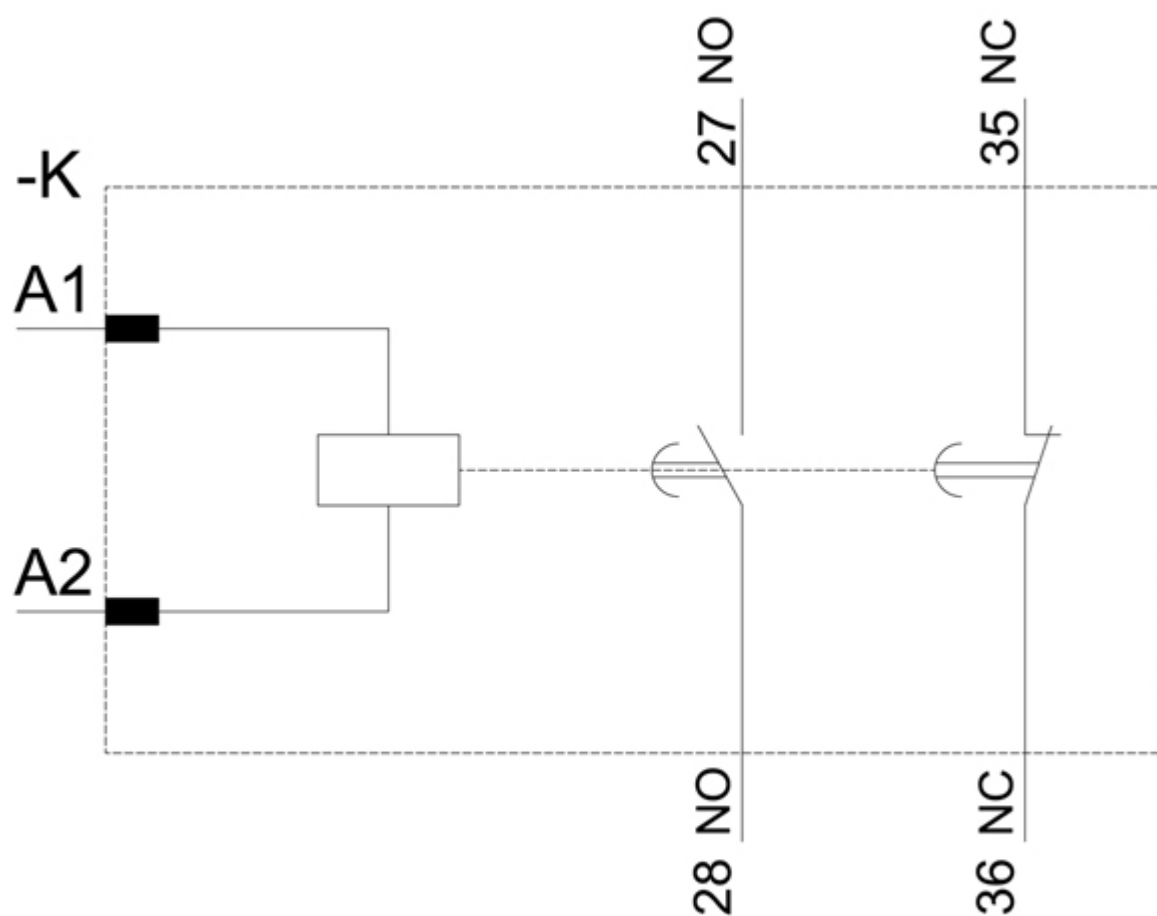
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2813-1FW10&lang=en

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2813-1FW10/manual>





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