



Electronic timing relay ON delay With semiconductor output 90-240 V AC/DC Time range 0.05...100 s Can be snapped on at the front For contactors 3RT2, S2, S3 and 3RH2 S00 contactor relays Spring-type terminal

product brand name	SIRIUS
product designation	function module
product type designation	3RA28
General technical data	
size of contactor can be combined company-specific	S2, S3
product component semi-conductor output	Yes
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	100 000 000
mechanical service life (switching cycles) <ul style="list-style-type: none"> • with contactor 3R.2 of frame size S2 • with contactor 3R.2 of frame size S3 	5 000 000 3 000 000
electrical endurance (switching cycles) at AC-15 at 230 V typical	10 000 000
electrical endurance (switching cycles) <ul style="list-style-type: none"> • with contactor 3R.2 of frame size S2 • with contactor 3R.2 of frame size S3 	5 000 000 3 000 000
adjustable time	0.05 ... 100 s
relative setting accuracy relating to full-scale value	15 %
recovery time	50 ms
reference code acc. to IEC 81346-2	K
relative repeat accuracy	1 %
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 <ul style="list-style-type: none"> • at 50 Hz • at 60 Hz 	90 ... 240 V 90 ... 240 V

control supply voltage frequency 1	50 ... 60 Hz
• control supply voltage 1 at DC	90 ... 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
• passing make contact	No
• passing make contact/instantaneous contact	No
switching function of interval relay with control signal	
• retrotriggerable with deactivated control signal/instantaneous contact	No
• 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
Auxiliary circuit	
number of NO contacts	
<ul style="list-style-type: none"> • delayed switching 	1
operating frequency with 3RT2 contactor maximum	2 500 1/h
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"> • 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	
touch protection against electrical shock	finger-safe
type of insulation	Basic insulation
category acc. to EN 954-1	none
Connections/ Terminals	
product function removable terminal for auxiliary and control circuit	Yes
type of electrical connection for auxiliary and control circuit	spring-loaded terminals
type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • solid 	0.5 ... 4 mm ² , 2x (0.5 ... 2.5 mm ²)
<ul style="list-style-type: none"> • finely stranded with core end processing 	1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²)
<ul style="list-style-type: none"> • finely stranded without core end processing 	2x (0.5 ... 1.5 mm ²)
<ul style="list-style-type: none"> • at AWG cables solid 	2x (20 ... 14)
<ul style="list-style-type: none"> • at AWG cables stranded 	2x (20 ... 14)
<ul style="list-style-type: none"> • connectable conductor cross-section solid 	0.5 ... 4 mm ²
<ul style="list-style-type: none"> • connectable conductor cross-section finely stranded with core end processing 	0.5 ... 2.5 mm ²
<ul style="list-style-type: none"> • connectable conductor cross-section finely stranded without core end processing 	0.25 ... 1.5 mm ²
<ul style="list-style-type: none"> • AWG number as coded connectable conductor cross section solid 	20 ... 14
<ul style="list-style-type: none"> • AWG number as coded connectable conductor cross section stranded 	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 	0 mm
<ul style="list-style-type: none"> — backwards 	0 mm
<ul style="list-style-type: none"> — upwards 	0 mm
<ul style="list-style-type: none"> — 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
• ambient temperature during storage	-40 ... +85 °C
• ambient temperature during transport	-40 ... +85 °C
relative humidity during operation	0 ... 95 %

Certificates/ approvals

General Product Approval	Test Certificates	Marine / Shipping
 	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=3RA2831-2DH10>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2831-2DH10>

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

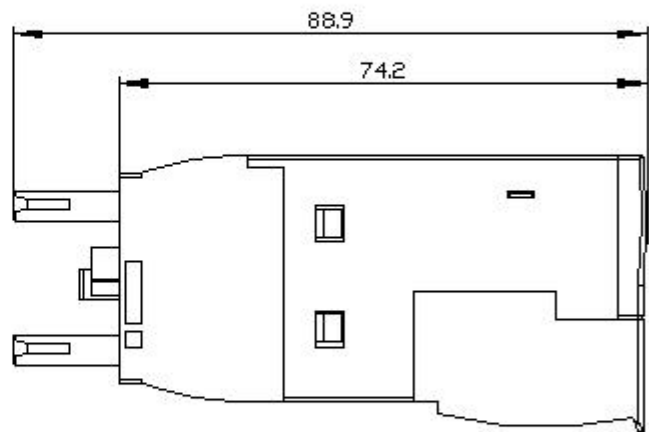
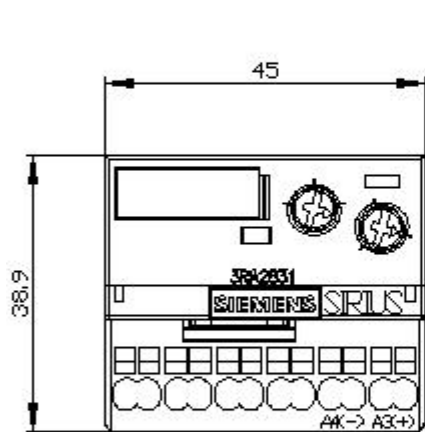
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2831-2DH10>

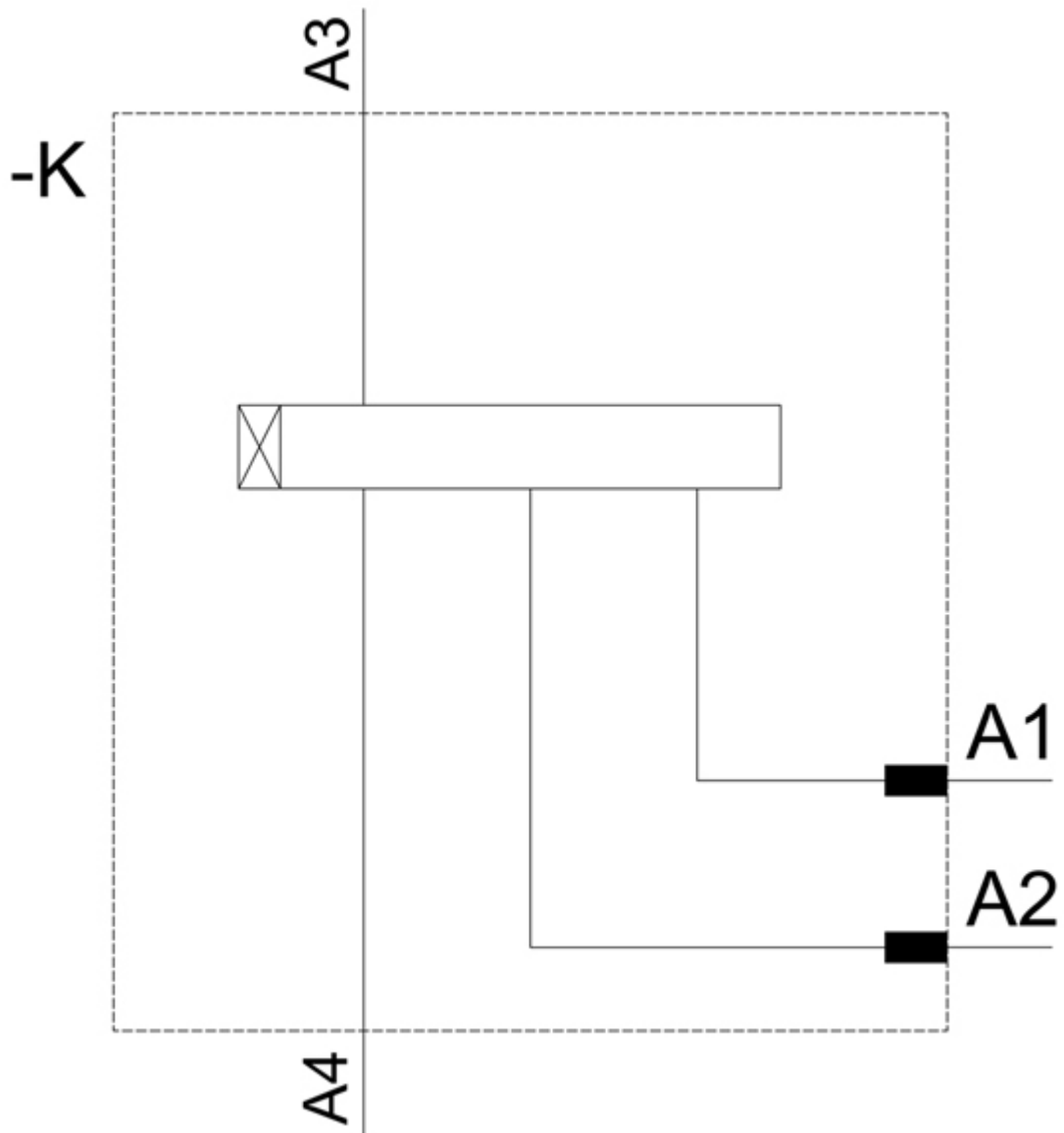
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2831-2DH10&lang=en

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2831-2DH10/manual>





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