



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
<b>General technical data</b>	
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
<b>mechanical service life (switching cycles)</b>	
• with contactor 3R.2 of frame size S2	5 000 000
• with contactor 3R.2 of frame size S3	3 000 000
electrical endurance (switching cycles) at AC-15 at 230 V typical	10 000 000
<b>electrical endurance (switching cycles)</b>	
• with contactor 3R.2 of frame size S2	5 000 000
• with contactor 3R.2 of frame size S3	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 %
Substance Prohibitance (Date)	01.10.2009 00:00:00
<b>Product Function</b>	
product function star-delta circuit	No
<b>Control circuit/ Control</b>	
type of voltage of the control supply voltage	AC/DC
control supply voltage 1 at AC	
• at 50 Hz	90 ... 240 V
• at 60 Hz	90 ... 240 V
control supply voltage frequency 1	50 ... 60 Hz

<b>control supply voltage 1</b> • at DC	90 ... 240 V
<b>operating range factor control supply voltage rated value at DC</b> • initial value • full-scale value	0.85 1.1
<b>operating range factor control supply voltage rated value at AC at 50 Hz</b> • initial value • full-scale value	0.85 1.1
<b>operating range factor control supply voltage rated value at AC at 60 Hz</b> • initial value • full-scale value	0.85 1.1
<b>design of the surge suppressor</b>	with varistor
<b>Switching Function</b>	
<b>switching function</b> • ON-delay • ON-delay/instantaneous contact • passing make contact • passing make contact/instantaneous contact • OFF delay	Yes No No No No
<b>switching function</b> • flashing symmetrically with interval start/instantaneous • flashing symmetrically with interval start • flashing symmetrically with pulse start/instantaneous • flashing symmetrically with pulse start • flashing asymmetrically with interval start • flashing asymmetrically with pulse start	No No No No No No
<b>switching function</b> • constant clock cycle with pulse start • constant clock cycle with interval start	No No
<b>switching function</b> • variably clocked with pulse start • variably clocked with interval start	No No
<b>switching function</b> • star-delta circuit with delay time • star-delta circuit	No No
<b>switching function with control signal</b> • additive ON-delay • passing break contact • passing break contact/instantaneous • OFF delay • OFF delay/instantaneous • pulse delayed • pulse delayed/instantaneous • pulse-shaping • pulse-shaping/instantaneous • additive ON-delay/instantaneous • ON-delay/OFF-delay • ON-delay/OFF-delay/instantaneous • passing make contact • passing make contact/instantaneous contact	No No No No No No No No No No No No No No
<b>switching function of interval relay with control signal</b> • retrotriggerable with deactivated control signal/instantaneous contact • retrotriggerable with switched-on control signal • retrotriggerable with switched-on control signal/instantaneous contact • retriggerable with deactivated control signal	No No No No



<b>design of the control terminal non-floating</b>	Yes
<b>Auxiliary circuit</b>	
<b>number of NO contacts</b>	
• delayed switching	1
<b>operating frequency with 3RT2 contactor maximum</b>	2 500 1/h
<b>influence of the surrounding temperature</b>	±1 %
<b>power supply influence</b>	±1 %
<b>Main circuit</b>	
<b>type of voltage</b>	AC/DC
<b>Inputs/ Outputs</b>	
<b>product function</b>	
• non-volatile	No
<b>Electromagnetic compatibility</b>	
EMC immunity acc. to IEC 61812-1	Environment A (industrial area)
<b>conducted interference</b>	
• due to burst acc. to IEC 61000-4-4	2 kV network connection / 1 kV control connection
• due to conductor-earth surge acc. to IEC 61000-4-5	2 kV
• due to conductor-conductor surge acc. to IEC 61000-4-5	1 kV
<b>field-based interference acc. to IEC 61000-4-3</b>	10 V/m
<b>electrostatic discharge acc. to IEC 61000-4-2</b>	8 kV
<b>Safety related data</b>	
<b>protection class IP on the front acc. to IEC 60529</b>	IP20
<b>type of insulation</b>	Basic insulation
<b>category acc. to EN 954-1</b>	none
<b>Connections/ Terminals</b>	
<b>product component removable terminal for auxiliary and control circuit</b>	Yes
type of electrical connection for auxiliary and control circuit	spring-loaded terminals
<b>type of connectable conductor cross-sections</b>	
• solid	0.5 ... 4 mm <sup>2</sup> , 2x (0.5 ... 2.5 mm <sup>2</sup> )
• finely stranded with core end processing	1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> )
• finely stranded without core end processing	2x (0.5 ... 1.5 mm <sup>2</sup> )
• at AWG cables solid	2x (20 ... 14)
• at AWG cables stranded	2x (20 ... 14)
<b>connectable conductor cross-section</b>	
• solid	0.5 ... 4 mm <sup>2</sup>
• finely stranded with core end processing	0.5 ... 2.5 mm <sup>2</sup>
• finely stranded without core end processing	0.25 ... 1.5 mm <sup>2</sup>
<b>AWG number as coded connectable conductor cross section</b>	
• solid	20 ... 14
• stranded	20 ... 14
<b>Installation/ mounting/ dimensions</b>	
<b>mounting position</b>	any (like contactor)
<b>fastening method</b>	clip-on
<b>height</b>	38 mm
<b>width</b>	45 mm
<b>depth</b>	74 mm
<b>required spacing</b>	
• 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
<b>ambient temperature</b>	
• during operation	-25 ... +60 °C
• during storage	-40 ... +85 °C
• during transport	-40 ... +85 °C
relative humidity during operation	0 ... 95 %

#### Certificates/ approvals

General Product Approval	Declaration of Conformity	Test Certificates	Marine / Shipping
	 <a href="#">UK Declaration of Conformity</a>	 EG-Konf.	 <a href="#">Type Test Certificates/Test Report</a>

#### 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,...)**

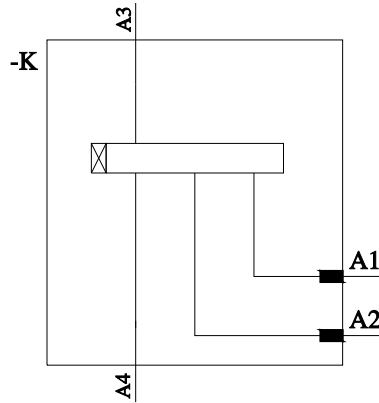
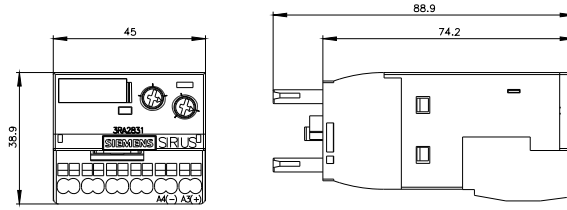
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2831-2DH10>

**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](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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