



Timing relay, electronic Multifunction, 8 functions 1 change-over contact 24 V AC/DC, 200 to 240 V AC at 50/60 Hz AC 0.05 s to 100 h Overall width 45 mm screw terminal

product brand name	SIRIUS
product designation	timing relay
design of the product	Multifunctional
product type designation	3RP20
<b>General technical data</b>	
product component	Yes
• relay output	No
• semi-conductor output	No
product extension required remote control	No
product extension optional remote control	No
power loss [W] maximum	2 W
insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value	300 V
test voltage for isolation test	2 kV
degree of pollution	3
surge voltage resistance rated value	4 000 V
shock resistance according to IEC 60068-2-27	11g / 15 ms
vibration resistance according to IEC 60068-2-6	10 ... 55 Hz / 0.35 mm
mechanical service life (operating cycles) typical	10 000 000
electrical endurance (operating cycles) at AC-15 at 230 V typical	100 000
adjustable time	0.05 ... 100 s
relative setting accuracy relating to full-scale value	5 %; +/-
thermal current	5 A
minimum ON period	35 ms
recovery time	150 ms
reference code according to IEC 81346-2	K
relative repeat accuracy	1 %; +/-
influence of the surrounding temperature	±5 %
power supply influence	±1 %
Substance Prohibitance (Date)	05/01/2012
<b>Control circuit/ Control</b>	
type of voltage of the control supply voltage	AC/DC
control supply voltage 1 at AC	24 V
• at 50 Hz rated value	24 V
• at 60 Hz rated value	24 V
control supply voltage 2 at AC	200 ... 240 V
• at 50 Hz	200 ... 240 V
• at 60 Hz	200 ... 240 V
control supply voltage frequency 1	50 ... 60 Hz
control supply voltage 1	24 V
• at DC rated value	24 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

**Switching Function****switching function**

- ON-delay Yes
- ON-delay/instantaneous contact No
- passing make contact Yes
- passing make contact/instantaneous contact No
- OFF delay No

**switching function**

- flashing symmetrically with interval start/instantaneous No
- flashing symmetrically with interval start Yes
- 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**

- star-delta circuit with delay time No
- star-delta circuit No

**switching function with control signal**

- additive ON-delay Yes
- passing break contact Yes
- passing break contact/instantaneous No
- OFF delay Yes
- OFF delay/instantaneous No
- pulse delayed No
- pulse delayed/instantaneous No
- pulse-shaping Yes
- pulse-shaping/instantaneous No
- additive ON-delay/instantaneous 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
- retrotriggerable with switched-on control signal/instantaneous contact No
- 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**AgSnO<sub>2</sub>**number of NC contacts**

- delayed switching 0
- instantaneous contact 0

**number of NO contacts**

- delayed switching 0
- instantaneous contact 0

**number of CO contacts**

<ul style="list-style-type: none"> <li>• delayed switching</li> <li>• instantaneous contact</li> </ul>	1
<b>operational current of auxiliary contacts at AC-15</b>	0
<ul style="list-style-type: none"> <li>• at 24 V</li> <li>• at 250 V</li> </ul>	3 A
<b>operational current of auxiliary contacts at DC-13</b>	3 A
<ul style="list-style-type: none"> <li>• at 24 V</li> <li>• at 125 V</li> <li>• at 250 V</li> </ul>	1 A
<b>operating frequency with 3RT2 contactor maximum contact reliability of auxiliary contacts</b>	0.2 A
	0.1 A
<b>contact rating of auxiliary contacts according to UL</b>	5 000 1/h
	one incorrect switching operation of 100 million switching operations (17 V, 5 mA)
	R300 / B300

### Inputs/ Outputs

<b>product function</b>	
<ul style="list-style-type: none"> <li>• non-volatile</li> </ul>	No

### Electromagnetic compatibility

EMC emitted interference according to IEC 61812-1	EN 61000-6-4(3)
EMC immunity according to IEC 61812-1	EN 61000-6-2
<b>conducted interference</b>	
<ul style="list-style-type: none"> <li>• due to burst according to IEC 61000-4-4</li> <li>• due to conductor-earth surge according to IEC 61000-4-5</li> <li>• due to conductor-conductor surge according to IEC 61000-4-5</li> </ul>	2 kV network connection / 1 kV control connection
	2 kV
	1 kV
<b>field-based interference according to IEC 61000-4-3</b>	10 V/m
<b>electrostatic discharge according to IEC 61000-4-2</b>	4 kV contact discharge / 8 kV air discharge

### Safety related data

<b>protection class IP on the front according to IEC 60529</b>	IP20
<b>touch protection on the front according to IEC 60529</b>	finger-safe, for vertical contact from the front
<b>type of insulation</b>	Basic insulation
<b>category according to EN 954-1</b>	none

### Connections/ Terminals

<b>product component removable terminal for auxiliary and control circuit</b>	No
type of electrical connection for auxiliary and control circuit	screw-type terminals
<b>type of connectable conductor cross-sections</b>	
<ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded with core end processing</li> <li>• at AWG cables solid</li> <li>• at AWG cables stranded</li> </ul>	2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> )
	2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> )
	2x (18 ... 14)
	2x (18 ... 14)
<b>connectable conductor cross-section</b>	
<ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded with core end processing</li> </ul>	0.5 ... 2.5 mm <sup>2</sup>
	0.5 ... 2.5 mm <sup>2</sup>
<b>AWG number as coded connectable conductor cross section</b>	
<ul style="list-style-type: none"> <li>• solid</li> <li>• stranded</li> </ul>	18 ... 14
	18 ... 14
<b>tightening torque</b>	0.8 ... 1.2 N·m
<b>design of the thread of the connection screw</b>	M3

### Installation/ mounting/ dimensions

<b>mounting position</b>	any
<b>fastening method</b>	screw and snap-on mounting onto 35 mm DIN rail
<b>height</b>	57 mm
<b>width</b>	45 mm
<b>depth</b>	73 mm
<b>required spacing</b>	
<ul style="list-style-type: none"> <li>• with side-by-side mounting</li> </ul>	
— 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	10 ... 95 %

#### Certificates/ approvals

General Product Approval	EMC	Declaration of Conformity
<a href="#">Confirmation</a>     		

Declaration of Conformity	Test Certificates	Marine / Shipping
	<a href="#">Type Test Certificates/Test Report</a>	   

Marine / Shipping	other
	<a href="#">Confirmation</a>

#### Further information

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>

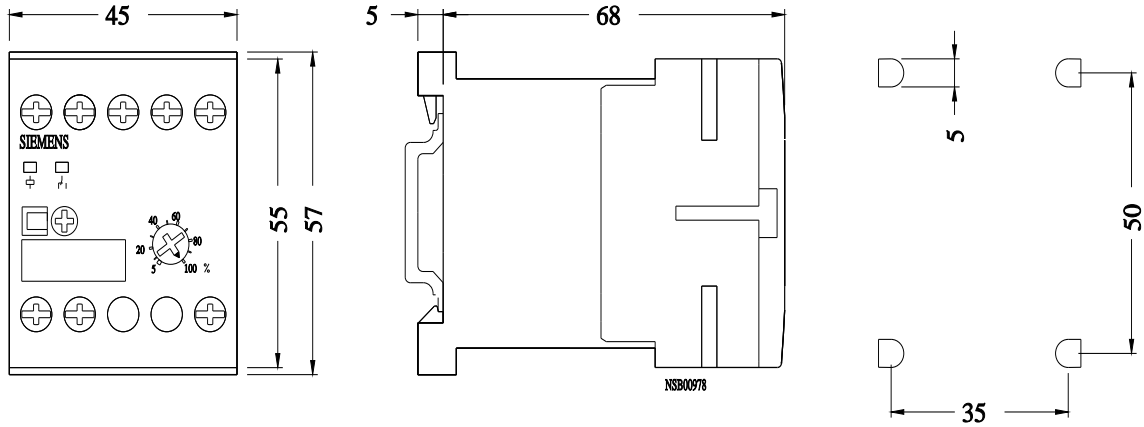
**Industry Mall (Online ordering system)**  
<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RP2005-1AP30>

**Cax online generator**  
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RP2005-1AP30>

**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**  
<https://support.industry.siemens.com/cs/ww/en/ps/3RP2005-1AP30>

**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**  
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RP2005-1AP30&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RP2005-1AP30&lang=en)

**Characteristic: Derating**



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