## SIEMENS

## Data sheet

## 3RP2511-1AW30



Timing relay, electronic ansprechverzögert 1 change-over contact, 1 time range 0.5...10 s 12-240 V AC/DC at 50/60 Hz AC with LED, Screw terminal

product brand name	SIRIUS
product designation	timing relay
design of the product	slow-operating
product type designation	3RP25
General technical data	
product component	
relay output	Yes
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	2.5 kV
degree of pollution	3
surge voltage resistance rated value	4 000 V
protection class IP	IP20
shock resistance acc. to IEC 60068-2-27	11g / 15 ms
vibration resistance acc. to IEC 60068-2-6	10 55 Hz / 0.35 mm
mechanical service life (switching cycles) typical	10 000 000
electrical endurance (switching cycles) at AC-15 at 230 V typical	100 000
adjustable time	0.5 10 s
relative setting accuracy relating to full-scale value	5 %; +/-
thermal current	5 A
recovery time	250 ms
reference code acc. to IEC 81346-2	К
relative repeat accuracy	1 %; +/-
influence of the surrounding temperature	1% in the whole temperature range to the set runtime
power supply influence	1% in the whole voltage range to the set runtime
Substance Prohibitance (Date)	12.09.2014
Control circuit/ Control	
type of voltage of the control supply voltage	AC/DC
control supply voltage 1 at AC	
● at 50 Hz	12 240 V
• at 60 Hz	12 240 V
control supply voltage frequency 1	50 60 Hz
control supply voltage 1	
● at DC	12 240 V
operating range factor control supply voltage rated	

value at DC	
initial value	0.8
full-scale value	1.1
operating range factor control supply voltage rated value at AC at 50 Hz	
initial value	0.8
• full-scale value	1.1
operating range factor control supply voltage rated value at AC at 60 Hz	
<ul> <li>initial value</li> </ul>	0.8
full-scale value	1.1
inrush current peak	
• at 24 V	0.4 A
• at 240 V	5 A
duration of inrush current peak	
• at 24 V	0.3 ms
• at 240 V	0.5 ms
Switching Function	
switching function	
<ul> <li>ON-delay</li> </ul>	Yes
<ul> <li>ON-delay/instantaneous contact</li> </ul>	No
<ul> <li>passing make contact</li> </ul>	No
<ul> <li>passing make contact/instantaneous contact</li> </ul>	No
OFF delay	No
<ul> <li>switching function</li> <li>flashing symmetrically with interval start/instantaneous</li> </ul>	No
<ul> <li>flashing symmetrically with interval start</li> </ul>	No
<ul> <li>flashing symmetrically with pulse</li> </ul>	No
<ul> <li>flashing symmetrically with pulse start</li> </ul>	No
<ul> <li>flashing symmetrically with interval start</li> </ul>	No
<ul> <li>flashing asymmetrically with pulse start</li> </ul>	No
switching function	
<ul> <li>star-delta circuit with delay time</li> </ul>	No
• star-delta circuit	No
switching function with control signal	
<ul> <li>additive ON-delay</li> </ul>	No
passing break contact	No
<ul> <li>passing break contact/instantaneous</li> </ul>	No
OFF delay	No
OFF delay/instantaneous	No
pulse delayed	No
<ul> <li>pulse delayed/instantaneous</li> </ul>	No
• pulse-shaping	No
<ul> <li>pulse-shaping/instantaneous</li> </ul>	No
<ul> <li>additive ON-delay/instantaneous</li> </ul>	No
<ul> <li>ON-delay/OFF-delay/instantaneous</li> </ul>	No
<ul> <li>passing make contact</li> </ul>	No
<ul> <li>passing make contact/instantaneous contact</li> </ul>	No
switching function of interval relay with control signal	
<ul> <li>retrotriggerable with deactivated control signal/instantaneous contact</li> </ul>	No
<ul> <li>retrotriggerable with switched-on control signal</li> </ul>	No
<ul> <li>retrotriggerable with switched-on control signal/instantaneous contact</li> </ul>	No
<ul> <li>retriggerable with deactivated control signal</li> </ul>	No
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	AgSnO2
number of NC contacts delayed switching	0
number of NO contacts delayed switching	0
number of CO contacts delayed switching	1
operational current of auxiliary contacts at AC-15	
• at 24 V	3 A
• at 250 V	3 A
operational current of auxiliary contacts at DC-13	
• at 24 V	1 A
• at 125 V	0.2 A
• at 250 V	0.1 A
operating frequency with 3RT2 contactor maximum	5 000 1/h
contact reliability of auxiliary contacts	one incorrect switching operation of 100 million switching operations (17 V, 5 mA) $$
contact rating of auxiliary contacts according to UL	R300 / B300
switching capacity current with inductive load	0.01 3 A
Inputs/ Outputs	
product function	
<ul> <li>at the relay outputs switchover delayed/without delay</li> </ul>	No
• non-volatile	No
Electromagnetic compatibility	
EMC emitted interference acc. to IEC 61812-1	ambience A (industrial sector)
EMC immunity acc. to IEC 61812-1	corresponds to degree of severity 3
conducted interference	
• 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	1 kV
61000-4-5	
field-based interference acc. to IEC 61000-4-3	10 V/m
electrostatic discharge acc. to IEC 61000-4-2	4 kV contact discharge / 8 kV air discharge
Safety related data	
meteotical along ID on the front and the IEO 00500	IP20
protection class IP on the front acc. to IEC 60529	11 20
type of insulation	Basic insulation
•	
type of insulation	Basic insulation
type of insulation category acc. to EN 954-1	Basic insulation
type of insulation category acc. to EN 954-1 Connections/ Terminals product component removable terminal for auxiliary and control circuit	Basic insulation none
type of insulation category acc. to EN 954-1 Connections/ Terminals product component removable terminal for auxiliary	Basic insulation none Yes
type of insulation category acc. to EN 954-1 Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit	Basic insulation none Yes
type of insulation category acc. to EN 954-1 Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections	Basic insulation none Yes screw-type terminals
type of insulation category acc. to EN 954-1 Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • solid	Basic insulation none Yes screw-type terminals 1x (0.5 4.0 mm <sup>2</sup> ), 2x (0.5 2.5 mm <sup>2</sup> )
type of insulation category acc. to EN 954-1 Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • solid • finely stranded with core end processing	Basic insulation none Yes screw-type terminals 1x (0.5 4.0 mm <sup>2</sup> ), 2x (0.5 2.5 mm <sup>2</sup> ) 1x (0.5 4 mm <sup>2</sup> ), 2x (0.5 1.5 mm <sup>2</sup> )
type of insulation category acc. to EN 954-1 Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid	Basic insulation none Yes screw-type terminals 1x (0.5 4.0 mm <sup>2</sup> ), 2x (0.5 2.5 mm <sup>2</sup> ) 1x (0.5 4 mm <sup>2</sup> ), 2x (0.5 1.5 mm <sup>2</sup> ) 1x (20 12), 2x (20 14)
type of insulation category acc. to EN 954-1 Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded	Basic insulation none Yes screw-type terminals 1x (0.5 4.0 mm <sup>2</sup> ), 2x (0.5 2.5 mm <sup>2</sup> ) 1x (0.5 4 mm <sup>2</sup> ), 2x (0.5 1.5 mm <sup>2</sup> ) 1x (20 12), 2x (20 14)
type of insulation category acc. to EN 954-1 Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded connectable conductor cross-section	Basic insulation none Yes screw-type terminals 1x (0.5 4.0 mm <sup>2</sup> ), 2x (0.5 2.5 mm <sup>2</sup> ) 1x (0.5 4 mm <sup>2</sup> ), 2x (0.5 1.5 mm <sup>2</sup> ) 1x (20 12), 2x (20 14) 1x (20 12), 2x (20 14)
type of insulation category acc. to EN 954-1 Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded connectable conductor cross-section • solid	Basic insulation none Yes screw-type terminals 1x (0.5 4.0 mm <sup>2</sup> ), 2x (0.5 2.5 mm <sup>2</sup> ) 1x (0.5 4 mm <sup>2</sup> ), 2x (0.5 1.5 mm <sup>2</sup> ) 1x (20 12), 2x (20 14) 1x (20 12), 2x (20 14) 0.5 4 mm <sup>2</sup>
type of insulation category acc. to EN 954-1 Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded connectable conductor cross-section • solid • finely stranded with core end processing • at AWG cables stranded	Basic insulation none Yes screw-type terminals 1x (0.5 4.0 mm <sup>2</sup> ), 2x (0.5 2.5 mm <sup>2</sup> ) 1x (0.5 4 mm <sup>2</sup> ), 2x (0.5 1.5 mm <sup>2</sup> ) 1x (20 12), 2x (20 14) 1x (20 12), 2x (20 14) 0.5 4 mm <sup>2</sup>
type of insulation category acc. to EN 954-1 Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded connectable conductor cross-section • solid • finely stranded with core end processing • solid • finely stranded with core end processing • AWG number as coded connectable conductor cross section	Basic insulation         none         Yes         screw-type terminals         1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)         1x (0.5 4 mm²), 2x (0.5 1.5 mm²)         1x (20 12), 2x (20 14)         1x (20 12), 2x (20 14)         0.5 4 mm²         0.5 4 mm²
type of insulation category acc. to EN 954-1 Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded connectable conductor cross-section • solid • finely stranded with core end processing • solid • finely stranded with core end processing • solid • finely stranded with core end processing AWG number as coded connectable conductor cross section • solid	Basic insulation none Yes screw-type terminals 1x (0.5 4.0 mm <sup>2</sup> ), 2x (0.5 2.5 mm <sup>2</sup> ) 1x (0.5 4 mm <sup>2</sup> ), 2x (0.5 1.5 mm <sup>2</sup> ) 1x (20 12), 2x (20 14) 1x (20 12), 2x (20 14) 0.5 4 mm <sup>2</sup> 0.5 4 mm <sup>2</sup> 20 12
type of insulation category acc. to EN 954-1 Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded connectable conductor cross-section • solid • finely stranded with core end processing • solid • finely stranded with core end processing • solid • solid • solid • solid • stranded	Basic insulation         none         Yes         screw-type terminals         1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)         1x (0.5 4 mm²), 2x (0.5 1.5 mm²)         1x (20 12), 2x (20 14)         1x (20 12), 2x (20 14)         0.5 4 mm²         0.5 4 mm²         20 12         20 12         20 12
type of insulation category acc. to EN 954-1 Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded connectable conductor cross-section • solid • finely stranded with core end processing • solid • finely stranded with core end processing • solid • solid • stranded tightening torque	Basic insulation         none         Yes         screw-type terminals $1x (0.5 4.0 \text{ mm}^2), 2x (0.5 2.5 \text{ mm}^2)$ $1x (0.5 4 \text{ mm}^2), 2x (0.5 1.5 \text{ mm}^2)$ $1x (20 12), 2x (20 14)$ $1x (20 12), 2x (20 14)$ $0.5 4 \text{ mm}^2$ $0.6 0.8 \text{ N·m}$
type of insulation category acc. to EN 954-1 Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded connectable conductor cross-section • solid • finely stranded with core end processing AWG number as coded connectable conductor cross section • solid • stranded tightening torque design of the thread of the connection screw Installation/ mounting/ dimensions	Basic insulation         none         Yes         screw-type terminals $1x (0.5 4.0 \text{ mm}^2), 2x (0.5 2.5 \text{ mm}^2)$ $1x (0.5 4 \text{ mm}^2), 2x (0.5 1.5 \text{ mm}^2)$ $1x (20 12), 2x (20 14)$ $1x (20 12), 2x (20 14)$ $0.5 4 \text{ mm}^2$ $0.6 0.8 \text{ N·m}$
type of insulation category acc. to EN 954-1 Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded connectable conductor cross-section • solid • finely stranded with core end processing AWG number as coded connectable conductor cross section • solid • stranded tightening torque design of the thread of the connection screw Installation/ mounting/ dimensions mounting position	Basic insulation         none         Yes         screw-type terminals         1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)         1x (0.5 4 mm²), 2x (0.5 1.5 mm²)         1x (20 12), 2x (20 14)         1x (20 12), 2x (20 14)         0.5 4 mm²         0.5 4 mm²         20 12         20 12         any
type of insulation category acc. to EN 954-1 Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded connectable conductor cross-section • solid • finely stranded with core end processing AWG number as coded connectable conductor cross section • solid • stranded tightening torque design of the thread of the connection screw Installation/ mounting/ dimensions mounting position fastening method	Basic insulation         none         Yes         screw-type terminals         1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)         1x (0.5 4 mm²), 2x (0.5 1.5 mm²)         1x (20 12), 2x (20 14)         1x (20 12), 2x (20 14)         0.5 4 mm²         0.5 4 mm²         20 12         20 12         20 12         3
type of insulation category acc. to EN 954-1 Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded connectable conductor cross-section • solid • finely stranded with core end processing AWG number as coded connectable conductor cross section • solid • stranded tightening torque design of the thread of the connection screw Installation/ mounting/ dimensions mounting position fastening method height	Basic insulation         none         Yes         screw-type terminals         1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)         1x (0.5 4 mm²), 2x (0.5 1.5 mm²)         1x (20 12), 2x (20 14)         1x (20 12), 2x (20 14)         0.5 4 mm²         0.5 4 mm²         0.5 4 mm²         0.5 4 mm²         any         screw and snap-on mounting onto 35 mm standard mounting rail
type of insulation category acc. to EN 954-1 Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded connectable conductor cross-section • solid • finely stranded with core end processing AWG number as coded connectable conductor cross section • solid • stranded tightening torque design of the thread of the connection screw Installation/ mounting/ dimensions mounting position fastening method height width	Basic insulation         none         Yes         screw-type terminals         1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)         1x (0.5 4 mm²), 2x (0.5 1.5 mm²)         1x (20 12), 2x (20 14)         1x (20 12), 2x (20 14)         0.5 4 mm²         0.5 4 mm²         20 12         20 12         20 14         0.6 0.8 N·m         M3         any         screw and snap-on mounting onto 35 mm standard mounting rail         100 mm         17.5 mm
type of insulation category acc. to EN 954-1 Connections/Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded connectable conductor cross-section • solid • finely stranded with core end processing AWG number as coded connectable conductor cross section • solid • stranded tightening torque design of the thread of the connection screw Installation/ mounting/ dimensions mounting position fastening method height width depth	Basic insulation         none         Yes         screw-type terminals         1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)         1x (0.5 4 mm²), 2x (0.5 1.5 mm²)         1x (20 12), 2x (20 14)         1x (20 12), 2x (20 14)         0.5 4 mm²         any         screw and snap-on mounting onto 35 mm standard mounting rail         100 mm
type of insulation category acc. to EN 954-1 Connections/ Terminals product component removable terminal for auxiliary and control circuit type of electrical connection for auxiliary and control circuit type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded connectable conductor cross-section • solid • finely stranded with core end processing AWG number as coded connectable conductor cross section • solid • stranded tightening torque design of the thread of the connection screw Installation/ mounting/ dimensions mounting position fastening method height width	Basic insulation         none         Yes         screw-type terminals         1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)         1x (0.5 4 mm²), 2x (0.5 1.5 mm²)         1x (20 12), 2x (20 14)         1x (20 12), 2x (20 14)         0.5 4 mm²         1x         0.6 0.8 N·m         M3         any         screw and snap-on mounting onto 35 mm standard mounting rail         100 mm         17.5 mm

— forwards					
		C	) mm		
<ul> <li>backwards</li> </ul>	3	C	) mm		
— upwards		C	) mm		
- downward	S	C	) mm		
— at the side	2	C	) mm		
<ul> <li>for grounded particular</li> </ul>	arts				
— forwards		C	) mm		
- backwards	3	C	) mm		
— upwards		C	) mm		
— at the side	2	C	) mm		
— downward	S	C	) mm		
<ul> <li>for live parts</li> </ul>					
— forwards		C	) mm		
<ul> <li>backwards</li> </ul>	3	C	) mm		
— upwards		C	) mm		
- downward	S	C	) mm		
— at the side	2	C	) mm		
mbient conditions					
installation altitude at	height above sea level	maximum 2	2 000 m		
ambient temperature					
<ul> <li>during operation</li> </ul>		-	25 +60 °C		
<ul> <li>during storage</li> </ul>			40 +85 °C		
<ul> <li>during transpor</li> </ul>	t		40 +85 °C		
relative humidity durir			0 95 %		
Certificates/ approval					
General Product Ap	oproval			EMC	Declaration of Conformity
(Ch				<b>•</b>	
		(UL)	EHC	RCM	CE EG-Konf.
Declaration of Conformity	Ccc Test Certificates	Wurine / Shippir	DRA	RCM	CE EG-Konf.
		Marine / Shippin	ng Keyster urs	RCM	EG-Konf.
Conformity	Test Certificates	BUREAU	Llovds Register	RCM	EG-Konf.
Conformity <u>Miscellaneous</u>	Test Certificates	BUREAU VERITAS	Llovds Register	RCM	EG-Konf.

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <u>http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RP2511-1AW30&lang=en</u> <u>Characteristic: Derating</u>

Cax online generator

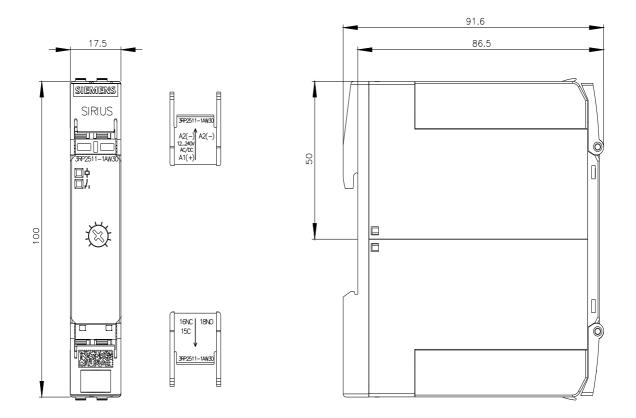
https://www.siemens.com/ic10

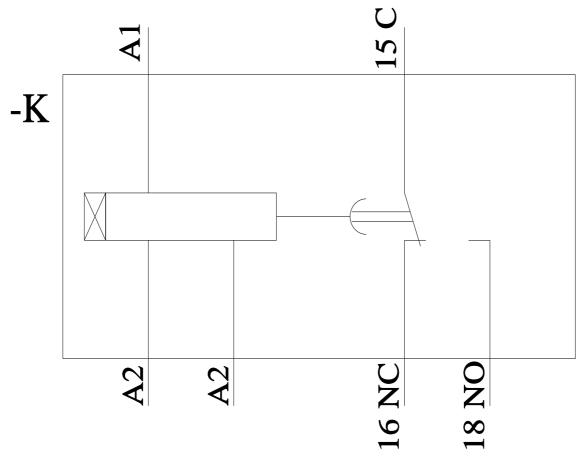
Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RP2511-1AW30

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RP2511-1AW30

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## last modified:

12/9/2021 🖸