

Timing relay, electronic OFF delay without control signal or smooth passing make contact non-volatile 7 time ranges 0.05...600 s 24 V AC/DC, 2 change-over contacts with LED, Screw terminal



Figure similar

Product brand name	SIRIUS
Product designation	timing relay
Design of the product	OFF-delay without control signal, non-volatile, passing make contact
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] total typical	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	0.05 ... 600 s
Relative setting accuracy relating to full-scale value	5 %
Thermal current	5 A
Minimum ON period	200 ms
Recovery time	250 ms
Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750	K
Reference code	
• acc. to DIN EN 81346-2	K
• acc. to DIN EN 61346-2	K
Relative repeat accuracy	1 %

Control circuit/ Control

Type of voltage of the control supply voltage	AC/DC
Control supply voltage 1 at AC	
• at 50 Hz rated value	24 V
• at 60 Hz rated value	24 V
Control supply voltage frequency 1	50 ... 60 Hz
Control supply voltage 1	
• 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
Inrush current peak	
• at 24 V	2 A

Duration of inrush current peak	
<ul style="list-style-type: none"> • at 24 V 	1 ms
Switching Function	
Switching function	
<ul style="list-style-type: none"> • ON-delay 	No
<ul style="list-style-type: none"> • ON-delay/instantaneous contact 	No
<ul style="list-style-type: none"> • passing make contact 	No
<ul style="list-style-type: none"> • passing make contact/instantaneous contact 	No
<ul style="list-style-type: none"> • OFF delay 	Yes
Switching function	
<ul style="list-style-type: none"> • flashing symmetrically starting with interval/instantaneous 	No
<ul style="list-style-type: none"> • flashing symmetrically starting with interval 	No
<ul style="list-style-type: none"> • flashing symmetrically starting with pulse/instantaneous 	No
<ul style="list-style-type: none"> • flashing symmetrically starting with pulse 	No
<ul style="list-style-type: none"> • flashing asymmetrically starting with interval 	No
<ul style="list-style-type: none"> • flashing asymmetrically starting with pulse 	No
Switching function	
<ul style="list-style-type: none"> • star-delta circuit with delay time 	No
<ul style="list-style-type: none"> • star-delta circuit 	No
Switching function with control signal	
<ul style="list-style-type: none"> • additive ON delay 	No
<ul style="list-style-type: none"> • passing break contact 	No
<ul style="list-style-type: none"> • passing break contact/instantaneous 	No
<ul style="list-style-type: none"> • OFF delay 	No
<ul style="list-style-type: none"> • OFF delay/instantaneous 	No
<ul style="list-style-type: none"> • pulse delayed 	No
<ul style="list-style-type: none"> • pulse delayed/instantaneous 	No
<ul style="list-style-type: none"> • pulse-shaping 	No
<ul style="list-style-type: none"> • pulse-shaping/instantaneous 	No
<ul style="list-style-type: none"> • additive ON delay/instantaneous 	No
<ul style="list-style-type: none"> • 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 activated control signal 	No
<ul style="list-style-type: none"> • retrotriggerable with activated control signal/instantaneous contact 	No
<ul style="list-style-type: none"> • retriggerable with deactivated control signal 	No

Short-circuit protection	
Design of the fuse link	
<ul style="list-style-type: none"> for short-circuit protection of the auxiliary switch required 	fuse gL/gG: 4 A
Auxiliary circuit	
Material of switching contacts	AgSnO ₂
Number of NC contacts	
<ul style="list-style-type: none"> delayed switching 	0
Number of NO contacts	
<ul style="list-style-type: none"> delayed switching 	0
Number of CO contacts	
<ul style="list-style-type: none"> delayed switching 	2
Operating current of auxiliary contacts at AC-15	
<ul style="list-style-type: none"> at 24 V at 250 V 	3 A 3 A
Operating current of auxiliary contacts at DC-13	
<ul style="list-style-type: none"> at 24 V at 125 V at 250 V 	1 A 0.2 A 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)
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
Switching capacity current with inductive load	0.01 ... 3 A
Inputs/ Outputs	
Product function	
<ul style="list-style-type: none"> at the relay outputs Switchover delayed/without delay non-volatile 	No Yes
Electromagnetic compatibility	
EMI immunity	
<ul style="list-style-type: none"> acc. to IEC 61812-1 	EN 61000-6-2
Conducted interference	
<ul style="list-style-type: none"> due to burst acc. to IEC 61000-4-4 due to conductor-earth surge acc. to IEC 61000-4-5 due to conductor-conductor surge acc. to IEC 61000-4-5 	2 kV network connection / 1 kV control connection 2 kV 1 kV
Field-bound parasitic coupling 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	
Protection against electrical shock	finger-safe
Type of insulation	Basic insulation
Category acc. to EN 954-1	none

Connections/Terminals	
Product function <ul style="list-style-type: none"> removable terminal for auxiliary and control circuit 	Yes
Type of electrical connection <ul style="list-style-type: none"> for auxiliary and control current 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 conductors solid at AWG conductors stranded 	1x (0.5 ... 4.0 mm ²), 2x (0.5 ... 2.5 mm ²) 1x (0.5 ... 4 mm ²), 2x (0.5 ... 1.5 mm ²) 1x (20 ... 12), 2x (20 ... 14) 1x (20 ... 12), 2x (20 ... 14)
Connectable conductor cross-section <ul style="list-style-type: none"> solid finely stranded with core end processing 	0.5 ... 4 mm ² 0.5 ... 4 mm ²
AWG number as coded connectable conductor cross section <ul style="list-style-type: none"> solid stranded 	20 ... 12 20 ... 14
Tightening torque	0.6 ... 0.8 N·m
Design of the thread of the connection screw	M3

Installation/ mounting/ dimensions	
Mounting position	any
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail
Height	100 mm
Width	22.5 mm
Depth	90 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 	0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 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
• during storage	-40 ... +85 °C
• during transport	-40 ... +85 °C
Relative humidity	
• during operation	10 ... 95 %

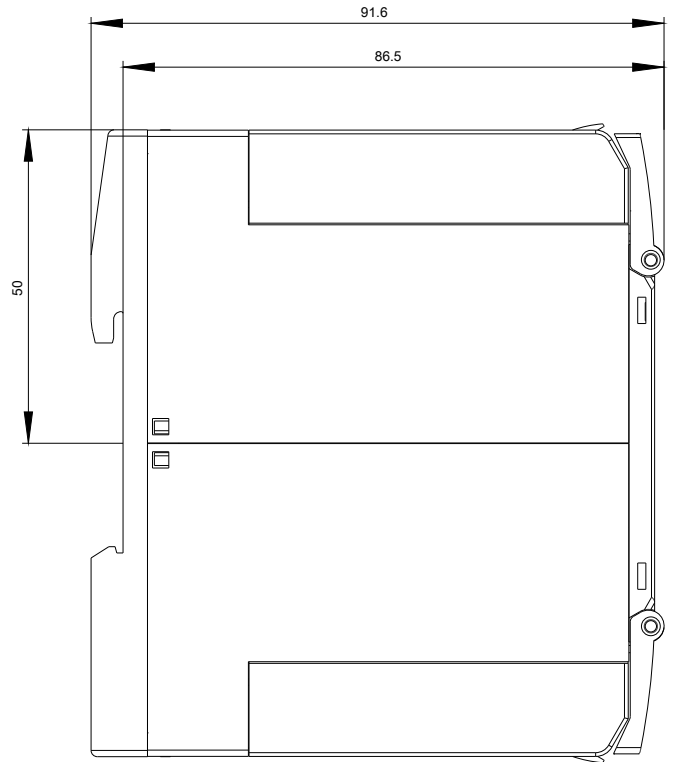
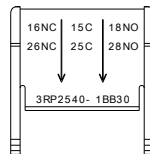
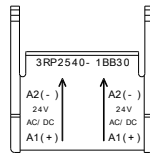
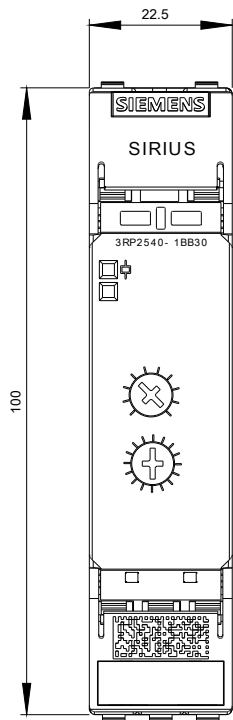
Certificates/approvals

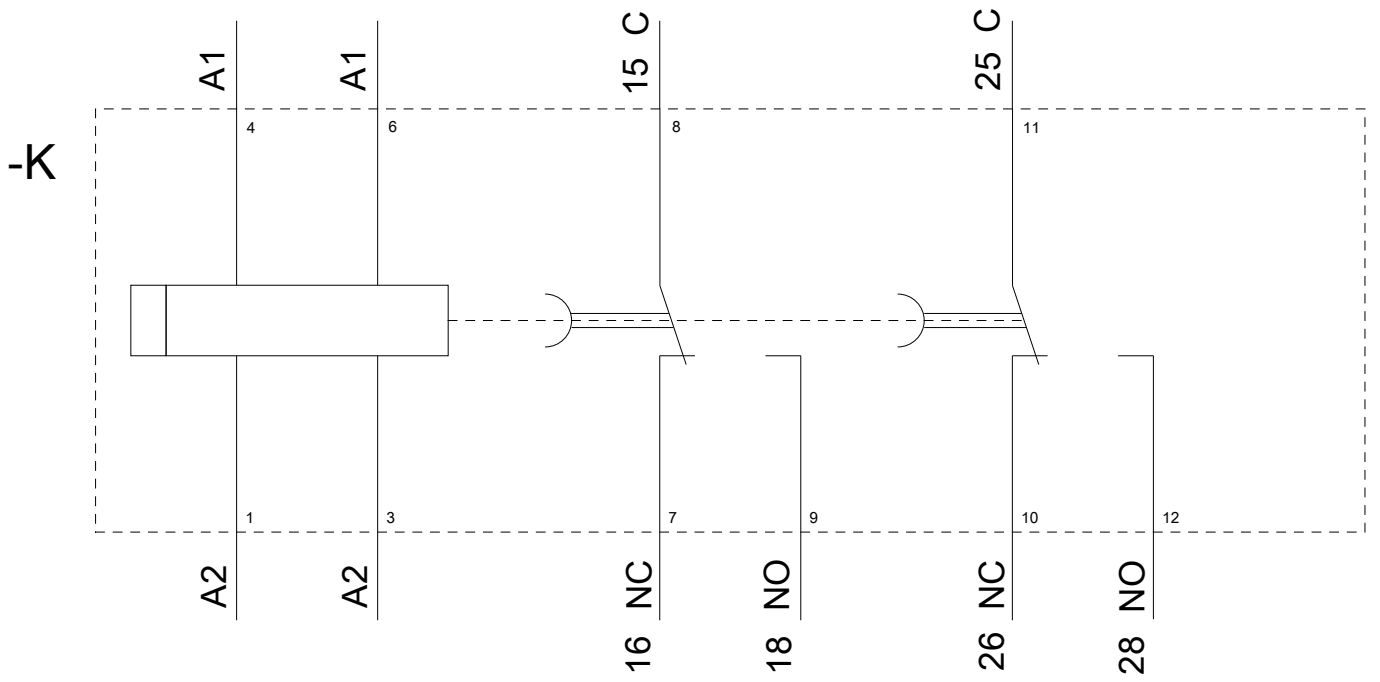
General Product Approval	Declaration of Conformity	Test Certificates
 CCC  CSA  UL	 EAC  CE EG-Konf.	Type Test Certificates/Test Report

Marine / Shipping	other
 LRS  PRS  RINA  RMRS  DNV-GL <small>DNVGL.COM/AF</small>	Confirmation

Further information

- Information- and Downloadcenter (Catalogs, Brochures,...)**
<http://www.siemens.com/industrial-controls/catalogs>
- Industry Mall (Online ordering system)**
<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RP2540-1BB30>
- Cax online generator**
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RP2540-1BB30>
- Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
<https://support.industry.siemens.com/cs/ww/en/ps/3RP2540-1BB30>
- Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RP2540-1BB30&lang=en





last modified:

04/11/2018