## **SIEMENS**

Data sheet 3RP25 05-2BT20



TIME RELAY, MULTI-FUNCTION, 2 CO CONT., 27 FUNCT., 15 TIME SET. RANGES (1, 3, 10, 30, 100) (S/MIN/HR), 400-440V AC AT AC 50/60HZ, LED, SPRING-LOADED TERMINAL (PUSH-IN)

## Figure similar

General technical data:		
product brand name		SIRIUS
Product designation		timing relay
Mounting position		any
Product function at the relay outputs Switchover		Yes
delayed/without delay		
Product function non-volatile		No
Product component		
Relay output		Yes
• semi-conductor output		No
Installation altitude at height above sea level	m	2 000
maximum		
Ambient temperature		
<ul> <li>during operation</li> </ul>	°C	-25 <b>+</b> 60
during storage	°C	-40 <b>+</b> 85
during transport	°C	-40 <b>+</b> 85
Relative humidity during operation	%	10 95
EMC emitted interference acc. to IEC 61812-1		EN 61000-6-4(3)
EMI immunity acc. to IEC 61812-1		EN 61000-6-2

Conducted interference due to burst acc. to IEC		2 kV network connection / 1 kV control connection
61000-4-4		
Conducted interference due to conductor-earth surge		2 kV
acc. to IEC 61000-4-5		
Conducted interference due to conductor-conductor		1 kV
surge acc. to IEC 61000-4-5		
Electrostatic discharge acc. to IEC 61000-4-2		4 kV contact discharge / 8 kV air discharge
Field-bound parasitic coupling acc. to IEC 61000-4-3		10 V/m
Surge voltage resistance rated value	V	4 000
Power loss [W] total typical	W	2
Equipment marking acc. to DIN 40719 extended		K
according to IEC 204-2 acc. to IEC 750		
Equipment marking acc. to DIN EN 81346-2		K
Category acc. to EN 954-1		none
Protection against electrical shock		finger-safe
Protection class IP		IP20
Mechanical service life (switching cycles) typical		10 000 000
Electrical endurance (switching cycles) at AC-15 at		100 000
230 V typical		
Operating frequency with 3RT2 contactor maximum	1/h	5 000
Vibration resistance acc. to IEC 60068-2-6		10 55 Hz / 0.35 mm
Shock resistance acc. to IEC 60068-2-27		11g / 15 ms
Relative repeat accuracy	%	1
Recovery time	ms	150
Minimum ON period	ms	35
Degree of pollution		3
Insulation voltage for overvoltage category III	V	500
according to IEC 60664 with degree of pollution 3		
rated value		
Relative setting accuracy relating to full-scale value	%	5

Switching Function:	
Switching function	
ON-delay	Yes
<ul> <li>ON-delay/instantaneous contact</li> </ul>	Yes
<ul> <li>passing make contact</li> </ul>	Yes
<ul> <li>passing make contact/instantaneous contact</li> </ul>	Yes
OFF delay	Yes
<ul> <li>flashing asymmetrically starting with interval</li> </ul>	No
<ul> <li>flashing asymmetrically starting with pulse</li> </ul>	No
<ul> <li>flashing symmetrically starting with pulse</li> </ul>	Yes
<ul> <li>flashing symmetrically starting with pulse/instantaneous</li> </ul>	Yes
<ul> <li>flashing symmetrically starting with interval</li> </ul>	Yes

<ul> <li>flashing symmetrically starting with interval/instantaneous</li> </ul>		Yes
• star-delta circuit		Yes
star-delta circuit with delay time		No
Switching function with control signal	_	
additive ON delay		Yes
passing break contact		Yes
OFF delay		Yes
pulse-shaping		Yes
OFF delay/instantaneous		Yes
ON-delay/OFF-delay/instantaneous		Yes
passing break contact/instantaneous		Yes
additive ON delay/instantaneous		Yes
ON-delay/OFF-delay		Yes
passing make contact		Yes
passing make contact/instantaneous contact		Yes
pulse delayed		Yes
pulse delayed/instantaneous		Yes
• pulse-shaping/instantaneous		Yes
Switching function of interval relay with control signal		
<ul> <li>retrotriggerable with deactivated control</li> </ul>		Yes
signal/instantaneous contact		
<ul> <li>retrotriggerable with activated control signal</li> </ul>		Yes
<ul> <li>retrotriggerable with activated control signal/instantaneous contact</li> </ul>		Yes
• retriggerable with deactivated control signal		Yes
Design of the control terminal non-floating	_	Yes
Control circuit/ Control:		
Adjustable time	S	0.05 360 000
Type of voltage of the control supply voltage		AC
Control supply voltage frequency 1	Hz	50 60
Control supply voltage 1		
• at AC		
— at 50 Hz	V	400 440
— at 60 Hz	V	400 440
Operating range factor control supply voltage rated value		
• at AC		
— at 50 Hz		0.85 1.1
— at 60 Hz		0.85 1.1
Auxiliary circuit:		

Contact reliability of auxiliary contacts		one incorrect switching operation of 100 million
		switching operations (17 V, 5 mA)
Material of switching contacts		AgSnO2
Operating current of auxiliary contacts		
● at AC-15		
— at 24 V	Α	3
— at 250 V	Α	3
• at DC-13		
— at 24 V	Α	1
— at 125 V	Α	0.2
— at 250 V	Α	0.1
Design of the fuse link for short-circuit protection of		fuse gL/gG: 4 A
the auxiliary switch required		
Thermal current	Α	5
Switching capacity current with inductive load	Α	0.01 3
Number of NC contacts		
delayed switching		0
• instantaneous contact		0
Number of NO contacts		
delayed switching		0
• instantaneous contact		0
Number of CO contacts		
• delayed switching		2
instantaneous contact		0

nstallation/ mounting/ dimensions:		·
Mounting type		screw and snap-on mounting onto 35 mm standard mounting rail
Width	mm	22.5
Height	mm	100
Depth	mm	90
Required spacing with side-by-side mounting		
• upwards	mm	0
• forwards	mm	0
• at the side	mm	0
Backwards	mm	0
• downwards	mm	0
Required spacing for grounded parts		
Backwards	mm	0
• at the side	mm	0
• upwards	mm	0
• forwards	mm	0
• downwards	mm	0

Required spacing for live parts		
<ul><li>downwards</li></ul>	mm	0
Backwards	mm	0
• at the side	mm	0
• forwards	mm	0
● upwards	mm	0

Connections/ Terminals:		
Type of electrical connection for auxiliary and control current circuit	F	PUSH-IN connection (spring-loaded connection)
Type of connectable conductor cross-sections		
• solid	C	0.5 4 mm²
<ul> <li>finely stranded</li> </ul>		
<ul> <li>— without core end processing</li> </ul>	C	0.5 4 mm²
<ul> <li>— with core end processing</li> </ul>	C	0.5 2.5 mm²
• at AWG conductors		
— solid	2	20 12

## Certificates/ approvals:

**General Product Approval** 

other







Umweltbestätigung

## Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)

http://www.siemens.com/industrymall

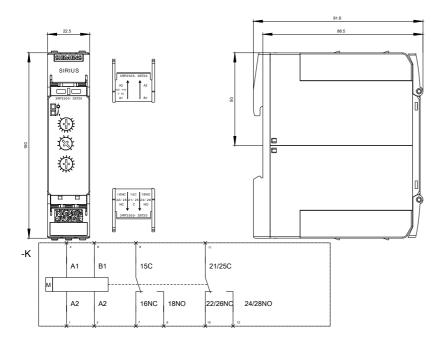
Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RP25052BT20

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

 $\underline{\text{https://support.industry.siemens.com/cs/ww/en/ps/3RP25052BT20}}$ 

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RP25052BT20&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RP25052BT20&lang=en</a>



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