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Data sheet 3RP25 05-1BB30

TIME RELAY, MULTI-FUNCTION, 2 CO CONTACTS, 27 FUNCTIONS, 7 TIME SET. RANGES, (1, 10, 100)s 10MIN; (1,10,100) HR 24V AC/DC AT AC 50/60HZ, LED, SCREW TERMINAL



Figure similar

General technical data:		
product brand name		SIRIUS
Product designation		3RP25 timing relays 17.5 mm and 22.5 mm
Design of the product		27 functions
Mounting position		any
Product function at the relay outputs Switchover delayed/without delay		Yes
Product function non-volatile		No
Product component		
• Relay output		Yes
• semi-conductor output		No
Installation altitude at height above sea level maximum	m	2 000
Ambient temperature		
• during operation	°C	-25 ... +60
• during storage	°C	-40 ... +85
• during transport	°C	-40 ... +85
Relative humidity during operation	%	10 ... 95

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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 61000-4-4		2 kV network connection / 1 kV control connection
Conducted interference due to conductor-earth surge acc. to IEC 61000-4-5		2 kV
Conducted interference due to conductor-conductor surge acc. to IEC 61000-4-5		1 kV
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 according to IEC 204-2 acc. to IEC 750		K
• acc. to DIN EN 61346-2		K
• acc. to DIN EN 81346-2		K
Category acc. to EN 954-1		none
Protection against electrical shock		finger-safe
Protection class IP		IP20
Type of insulation		Basic insulation
Mechanical service life (switching cycles) typical		10 000 000
Electrical endurance (switching cycles) at AC-15 at 230 V typical		100 000
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 according to IEC 60664 with degree of pollution 3 rated value	V	300
Relative setting accuracy relating to full-scale value	%	5
Product extension required remote control		No
Product extension optional remote control		No

Switching Function:		
Switching function		
• ON-delay		Yes
• ON-delay/instantaneous contact		Yes
• passing make contact		Yes
• passing make contact/instantaneous contact		Yes
• OFF delay		Yes

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• flashing asymmetrically starting with interval		No
• flashing asymmetrically starting with pulse		No
• flashing symmetrically starting with pulse		Yes
• flashing symmetrically starting with pulse/instantaneous		Yes
• flashing symmetrically starting with interval		Yes
• flashing symmetrically starting with interval/instantaneous		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		
• retrotriggerable with deactivated control signal/instantaneous contact		Yes
• retrotriggerable with activated control signal		Yes
• retrotriggerable with activated control signal/instantaneous contact		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/DC
Control supply voltage frequency 1	Hz	50 ... 60
Control supply voltage 1		
• at AC at 50 Hz rated value	V	24
• at AC at 60 Hz rated value	V	24
• at DC rated value	V	24

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Operating range factor control supply voltage rated value		
• at AC		
— at 50 Hz		0.85 ... 1.1
— at 60 Hz		0.85 ... 1.1
• at DC		0.85 ... 1.1
Inrush current peak		
• at 24 V	A	2
Duration of inrush current peak		
• at 24 V	ms	1
Power loss [W] at AC maximum	W	0.73
Power loss [V•A] at AC maximum	V·A	0.73
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	A	3
— at 250 V	A	3
• **at DC-13**		
— at 24 V	A	1
— at 125 V	A	0.2
— at 250 V	A	0.1
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
Test voltage for isolation test	kV	2.5
Design of the fuse link for short-circuit protection of the auxiliary switch required		fuse gL/gG: 4 A
Thermal current	A	5
Switching capacity current with inductive load	A	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
Contact rating of auxiliary contacts according to UL		R300 / B300
Installation/ mounting/ dimensions:		

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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		
• downwards	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		screw-type terminals
Product function removable terminal for auxiliary and control circuit		Yes
Type of connectable conductor cross-sections		
• solid		1x (0.5 ... 4.0 mm²), 2x (0.5 ... 2.5 mm²)
• finely stranded		
— with core end processing		1x (0.5 ... 4 mm²), 2x (0.5 ... 1.5 mm²)
• at AWG conductors		
— stranded		1x (20 ... 12), 2x (20 ... 14)
— solid		1x (20 ... 12), 2x (20 ... 14)
Tightening torque	N·m	0.6 ... 0.8
Design of the thread of the connection screw		M3
Ampacity of the bridge terminals maximum	A	10

Certificates/approvals

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General Product Approval				Declaration of Conformity	Test Certificates
CCC	CSA	UL	EAC	EG-Konf.	Typprüfbescheinigung/Werkszeugnis

Shipping Approval	other	
LRS	Umweltbestätigung	Bestätigungen

Further information

Information- and Downloadcenter (Catalogs, Brochures,…)
http://www.siemens.com/industrial-controls/catalogs

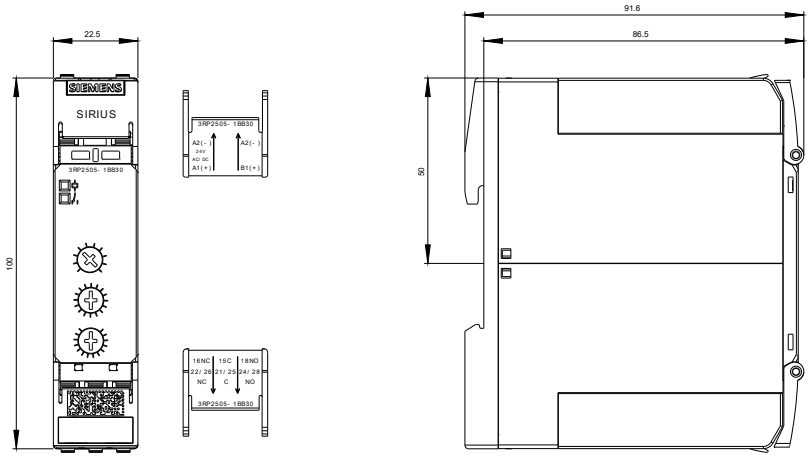
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RP2505-1BB30

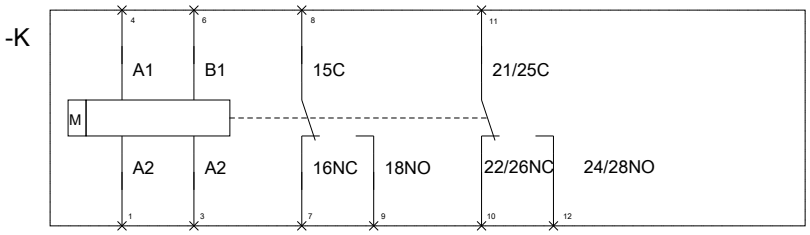
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RP2505-1BB30

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RP2505-1BB30

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
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