

Timing relay, electronic Multifunction 1 change-over contact, 7 functions 7 time ranges 0.05 s ... 100 h 12-240 V AC/DC with LED, Screw terminal



Product brand name	SIRIUS
Product designation	timing relay
Design of the product	Multifunctional
Product type designation	7PV15

General technical data	
Product component	
• semi-conductor output	No
Product extension required remote control	No
Product extension optional remote control	No
Insulation voltage	
• for overvoltage category III according to IEC 60664	
— with degree of pollution 3 rated value	300 V
Test voltage for isolation test	2.2 kV
Degree of pollution	2
Surge voltage resistance rated value	4 000 V
Test voltage for surge voltage test	4 800 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 s ... 100 h
Relative setting accuracy relating to full-scale value	5 %
Minimum ON period	35 ms
Recovery time	500 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
Reference code acc. to DIN EN 61346-2	K
Relative repeat accuracy	2 %

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	0.85
• 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 starting with interval/instantaneous	No
• flashing symmetrically starting with interval	Yes
• flashing symmetrically starting with pulse/instantaneous	No
• flashing symmetrically starting with pulse	No
• flashing asymmetrically starting with interval	No
• flashing asymmetrically starting with pulse	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	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 activated control signal	No
• retrotriggerable with activated 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	AgSnO2

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	1
• instantaneous contact	0
Operating current of auxiliary contacts at AC-15	
• maximum	3 A
• at 24 V	3 A
• at 250 V	3 A
Operating current of auxiliary contacts as NC contact at AC-15	
• at 24 V	3 A
• at 250 V	3 A
Operating current of auxiliary contacts as NO contact at AC-15	
• at 24 V	3 A
• at 250 V	3 A
Operating current of auxiliary contacts at DC-13	1 ... 0.01
Operating current of auxiliary contacts at DC-13	
• at 24 V	1 A
• at 125 V	0.22 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	R150 / B300
Influence of the surrounding temperature	2% in complete temperature range for the set duration
Power supply influence	2% in complete voltage range for the set duration
Switching capacity current with inductive load	0.01 ... 3 A

Inputs/ Outputs

Product function	
• at the relay outputs Switchover delayed/without delay	No
• non-volatile	No

Electromagnetic compatibility

EMI immunity	
• 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 	2 kV network connection / 1 kV control connection
<ul style="list-style-type: none"> • due to conductor-earth surge acc. to IEC 61000-4-5 	2 kV
<ul style="list-style-type: none"> • due to conductor-conductor surge acc. to IEC 61000-4-5 	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	No
<ul style="list-style-type: none"> • removable terminal for auxiliary and control circuit 	
Type of electrical connection	screw-type terminals
<ul style="list-style-type: none"> • for auxiliary and control current circuit 	
Type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • solid 	1x (0.2 ... 2.5 mm ²)
<ul style="list-style-type: none"> • finely stranded with core end processing 	1x (0.25 ... 1.5 mm ²)
<ul style="list-style-type: none"> • finely stranded without core end processing 	1x (0.2 ... 1.5 mm ²)
<ul style="list-style-type: none"> • at AWG conductors solid 	1x (24 ... 14)
<ul style="list-style-type: none"> • at AWG conductors stranded 	1x (24 ... 14)
Connectable conductor cross-section	
<ul style="list-style-type: none"> • solid 	0.2 ... 2.5 m ²
<ul style="list-style-type: none"> • finely stranded with core end processing 	0.25 ... 1.5 m ²
<ul style="list-style-type: none"> • finely stranded without core end processing 	0.2 ... 1.5 m ²
AWG number as coded connectable conductor cross section	
<ul style="list-style-type: none"> • solid 	24 ... 14
<ul style="list-style-type: none"> • stranded 	24 ... 14

Installation/ mounting/ dimensions






Mounting position	any
Mounting type	snap-on fastening on 35 mm standard rail
Height	90 mm
Width	17.5 mm
Depth	66.7 mm
Required spacing	
<ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards — Backwards — upwards 	0 mm 0 mm 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
Relative humidity	
• during operation	15 ... 85 %

Certificates/ approvals

General Product Approval	EMC	Declaration of Conformity
 CCC	 UL	
	 RCM	 EG-Konf.
		Miscellaneous

Test Certificates	other
Type Test Certificates/Test Report	Confirmation

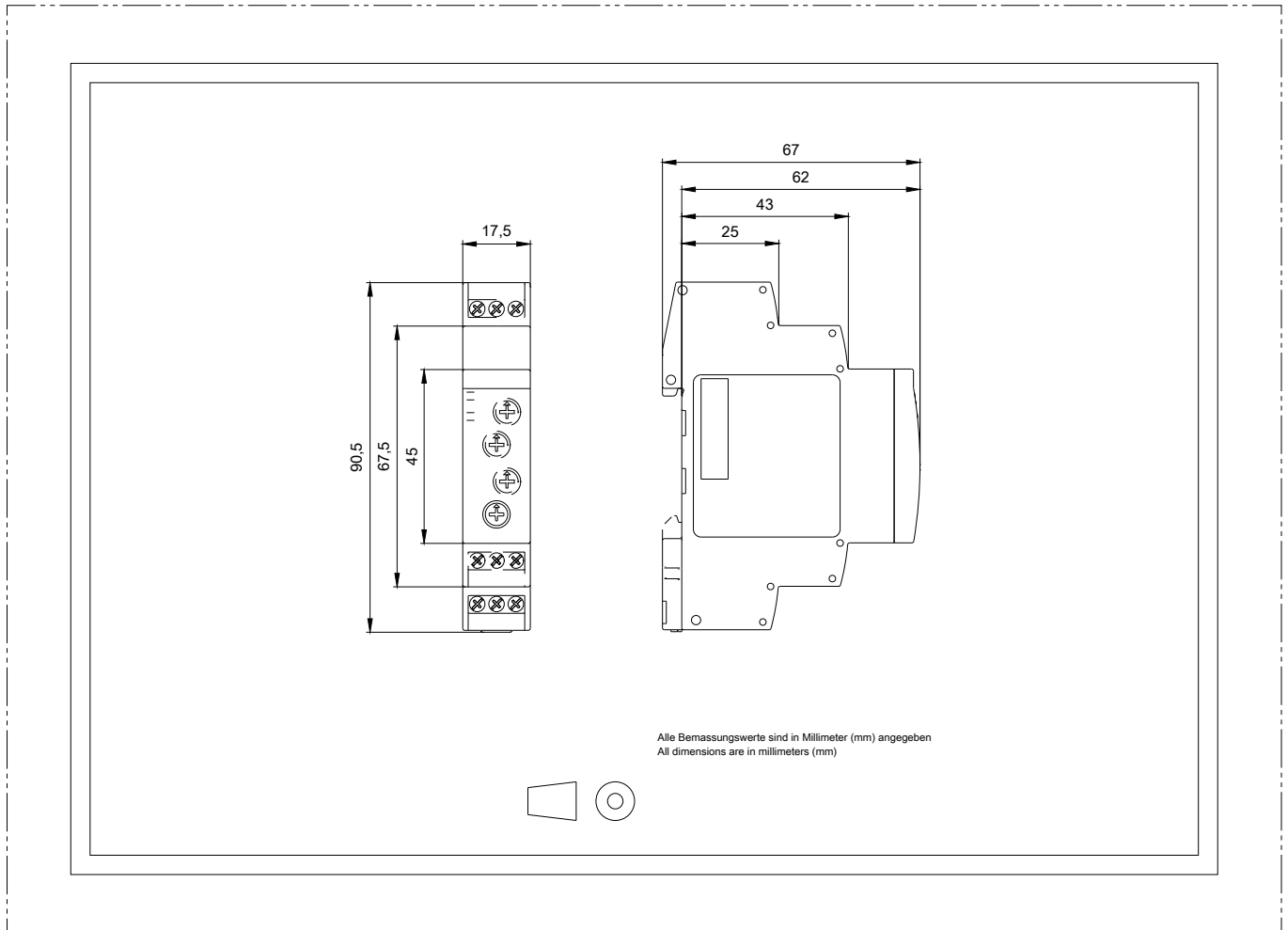
Further information

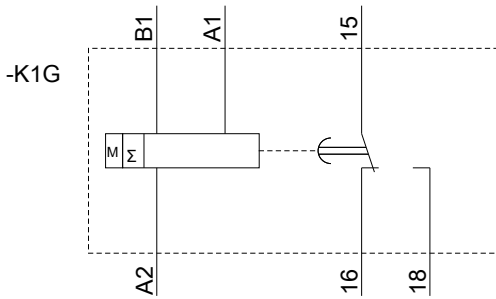
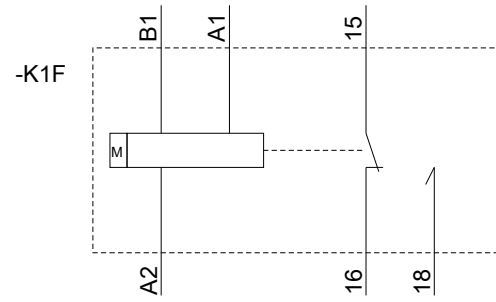
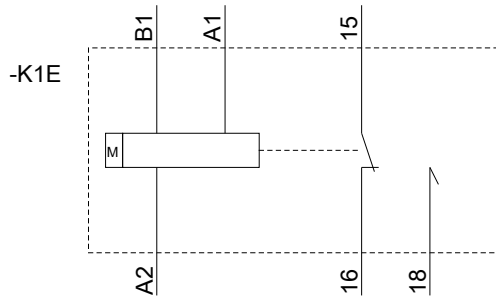
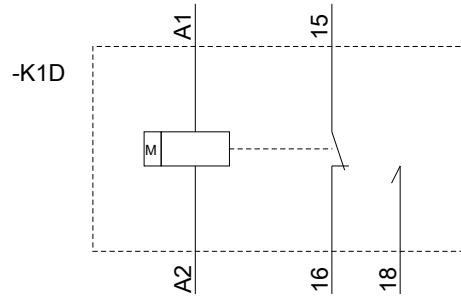
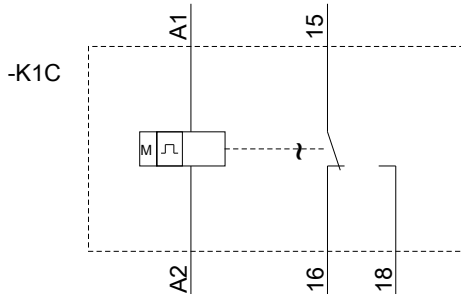
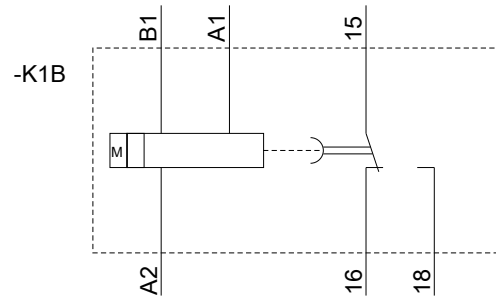
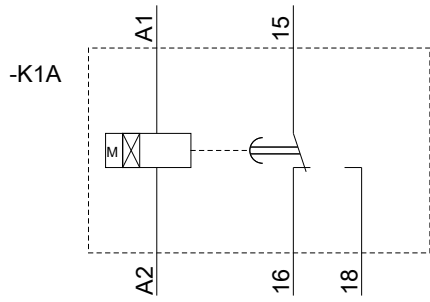
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