

Timing relay, electronic with star-delta (wye-delta) function 2 NO 7
time ranges 0.05 s...100 h 12-240 V AC/DC Screw terminal



Product brand name	SIRIUS
Product designation	timing relay
Design of the product	Star-delta (wye-delta) function
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
Power loss [W] total typical	2 W
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
Mechanical service life (switching cycles)	
• typical	10 000 000

Electrical endurance (switching cycles)	
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • at 50 Hz 	12 ... 240 V
<ul style="list-style-type: none"> • at 60 Hz 	12 ... 240 V
Control supply voltage frequency 1	50 ... 60 Hz
Control supply voltage 1	
<ul style="list-style-type: none"> • at DC 	12 ... 240 V
Operating range factor control supply voltage rated value at DC	
<ul style="list-style-type: none"> • initial value 	0.85
<ul style="list-style-type: none"> • Full-scale value 	1.1
Operating range factor control supply voltage rated value at AC at 50 Hz	
<ul style="list-style-type: none"> • initial value 	0.85
<ul style="list-style-type: none"> • Full-scale value 	1.1
Operating range factor control supply voltage rated value at AC at 60 Hz	
<ul style="list-style-type: none"> • initial value 	0.85
<ul style="list-style-type: none"> • Full-scale value 	1.1

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 	No
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 	Yes
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 	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
Design of the control terminal non-floating	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	AgSnO2
Number of NC contacts	
<ul style="list-style-type: none"> delayed switching 	0
<ul style="list-style-type: none"> instantaneous contact 	0
Number of NO contacts	

<ul style="list-style-type: none"> • delayed switching • instantaneous contact 	<p>2</p> <p>0</p>
Number of CO contacts	
<ul style="list-style-type: none"> • delayed switching • instantaneous contact 	<p>0</p> <p>0</p>
Operating current of auxiliary contacts at AC-15	
<ul style="list-style-type: none"> • maximum • at 24 V • at 250 V 	<p>3 A</p> <p>3 A</p> <p>3 A</p>
Operating current of auxiliary contacts as NC contact at AC-15	
<ul style="list-style-type: none"> • at 24 V • at 250 V 	<p>3 A</p> <p>3 A</p>
Operating current of auxiliary contacts as NO contact at AC-15	
<ul style="list-style-type: none"> • at 24 V • at 250 V 	<p>3 A</p> <p>3 A</p>
Operating current of auxiliary contacts at DC-13	1 ... 0.01
Operating current of auxiliary contacts at DC-13	
<ul style="list-style-type: none"> • at 24 V • at 125 V • at 250 V 	<p>1 A</p> <p>0.22 A</p> <p>0.1 A</p>
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	
<ul style="list-style-type: none"> • at the relay outputs Switchover delayed/without delay • non-volatile 	<p>No</p> <p>No</p>

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 	<p>2 kV network connection / 1 kV control connection</p> <p>2 kV</p>

• 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	
• removable terminal for auxiliary and control circuit	No
Type of electrical connection	
• for auxiliary and control current circuit	screw-type terminals
Type of connectable conductor cross-sections	
• solid	1x (0.2 ... 2.5 mm ²)
• finely stranded with core end processing	1x (0.25 ... 1.5 mm ²)
• finely stranded without core end processing	1x (0.2 ... 1.5 mm ²)
• at AWG conductors solid	1x (24 ... 14)
• at AWG conductors stranded	1x (24 ... 14)
Connectable conductor cross-section	
• solid	0.2 ... 2.5 m ²
• finely stranded with core end processing	0.25 ... 1.5 m ²
• finely stranded without core end processing	0.2 ... 1.5 m ²
AWG number as coded connectable conductor cross section	
• solid	24 ... 14
• 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	
• with side-by-side mounting	
— forwards	0 mm
— Backwards	0 mm
— upwards	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

0 mm
0 mm
0 mm
0 mm
0 mm
0 mm
0 mm
0 mm
0 mm
0 mm
0 mm

Ambient conditions

Installation altitude at height above sea level	
<ul style="list-style-type: none"> • maximum 	2 000 m
Relative humidity	
<ul style="list-style-type: none"> • 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

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

www.siemens.com/sirius/catalogs

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=7PV1578-1BW30>

Cax online generator

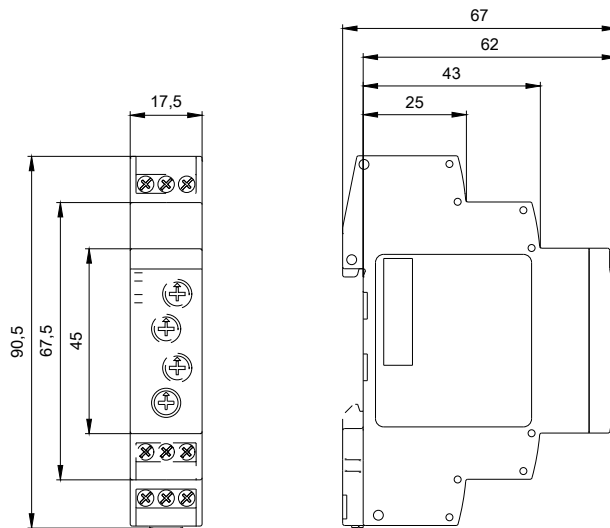
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=7PV1578-1BW30>

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

<https://support.industry.siemens.com/cs/ww/en/ps/7PV1578-1BW30>

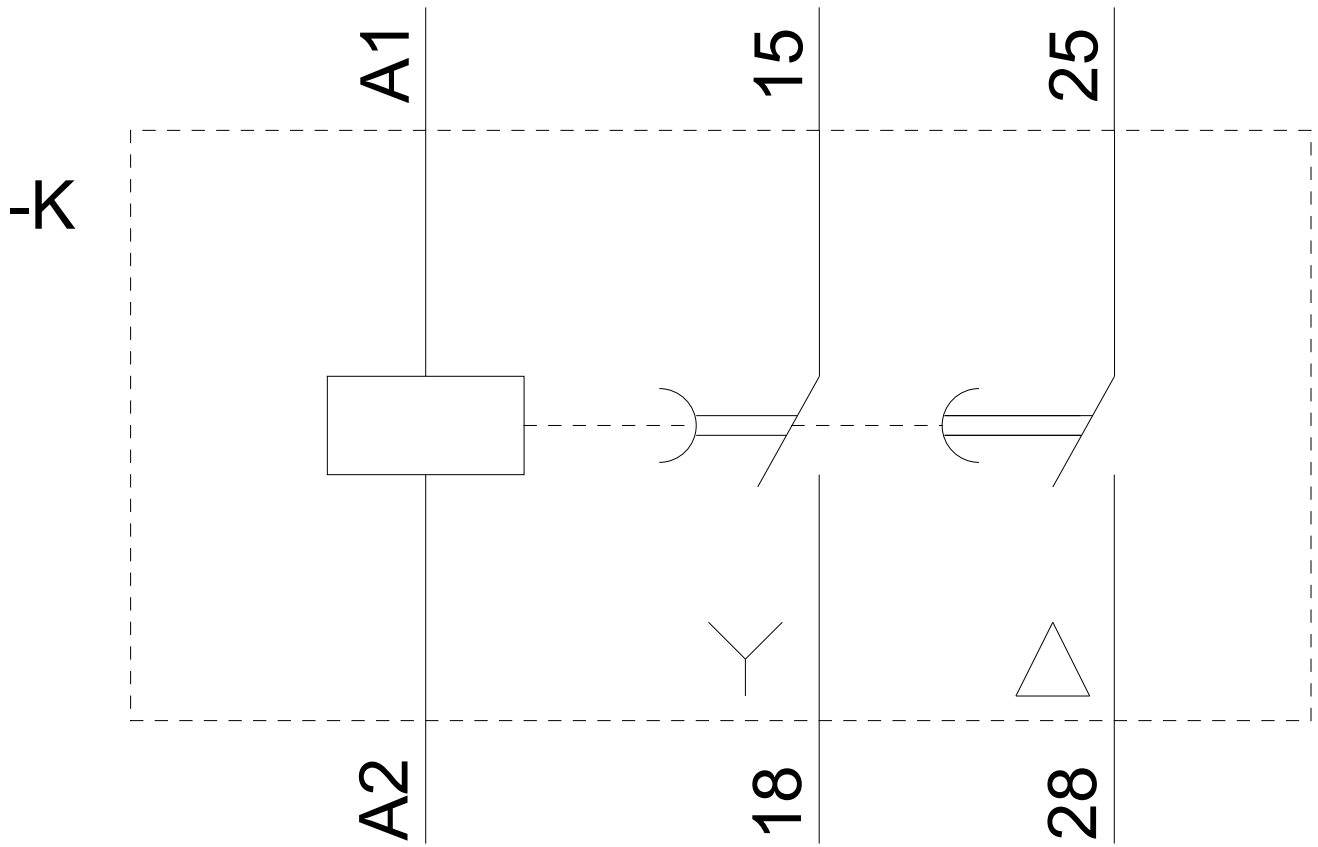
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=7PV1578-1BW30&lang=en



Alle Bemessungswerte sind in Millimeter (mm) angegeben
 All dimensions are in millimeters (mm)





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