

Timing relay, electronic ON delay 1 change-over contact, 1 time range 0.5...10 s 24/110 V AC and 24 V DC with LED, Screw terminal



product brand name	SIRIUS
Product designation	timing relay
Design of the product	slow-operating
Product type designation	7PV15

General technical data	
Product component	
<ul style="list-style-type: none"> • semi-conductor output 	No
Product extension required remote control	No
Product extension optional remote control	No
<ul style="list-style-type: none"> • — 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
<ul style="list-style-type: none"> • 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	0.5 ... 10 s
Relative setting accuracy relating to full-scale value	5 %
minimum ON period	35 ms
• recovery time	500 ms
Reference code acc. to DIN EN 81346-2	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	100 ... 127 V
• at 60 Hz	100 ... 127 V
Control supply voltage 2 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

Switching Function

• switching function ON-delay	Yes
• switching function ON-delay/instantaneous contact	No
• switching function passing make contact	No

<ul style="list-style-type: none"> • switching function passing make contact/instantaneous contact 	No
<ul style="list-style-type: none"> • Switching function 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 	No
<ul style="list-style-type: none"> • Switching function with control signal additive ON delay 	No
<ul style="list-style-type: none"> • Switching function with control signal passing break contact 	No
<ul style="list-style-type: none"> • Switching function with control signal passing break contact/instantaneous 	No
<ul style="list-style-type: none"> • Switching function with control signal OFF delay 	No
<ul style="list-style-type: none"> • Switching function with control signal OFF delay/instantaneous 	No
<ul style="list-style-type: none"> • Switching function with control signal pulse delayed 	No
<ul style="list-style-type: none"> • Switching function with control signal pulse delayed/instantaneous 	No
<ul style="list-style-type: none"> • switching function with control signal pulse-shaping 	No
<ul style="list-style-type: none"> • Switching function with control signal pulse-shaping/instantaneous 	No
<ul style="list-style-type: none"> • Switching function with control signal additive ON delay/instantaneous 	No
<ul style="list-style-type: none"> • Switching function with control signal ON-delay/OFF-delay 	No
<ul style="list-style-type: none"> • Switching function with control signal ON-delay/OFF-delay/instantaneous 	No
<ul style="list-style-type: none"> • Switching function with control signal passing make contact 	No
<ul style="list-style-type: none"> • Switching function with control signal 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 	0
<ul style="list-style-type: none"> • instantaneous contact 	0
Number of CO contacts	
<ul style="list-style-type: none"> • delayed switching 	1
<ul style="list-style-type: none"> • instantaneous contact 	0
<ul style="list-style-type: none"> • Operating current of auxiliary contacts at AC-15 maximum 	3 A
<ul style="list-style-type: none"> • operating current of auxiliary contacts at AC-15 at 24 V 	3 A
<ul style="list-style-type: none"> • operating current of auxiliary contacts at AC-15 at 250 V 	3 A
Operating current of auxiliary contacts as NC contact at AC-15	
<ul style="list-style-type: none"> • at 24 V 	3 A
<ul style="list-style-type: none"> • at 250 V 	3 A
Operating current of auxiliary contacts as NO contact at AC-15	
<ul style="list-style-type: none"> • at 24 V 	3 A
<ul style="list-style-type: none"> • at 250 V 	3 A
Operating current of auxiliary contacts at DC-13	1 ... 0.01
<ul style="list-style-type: none"> • operating current of auxiliary contacts at DC-13 at 24 V 	1 A
<ul style="list-style-type: none"> • operating current of auxiliary contacts at DC-13 at 125 V 	0.22 A
<ul style="list-style-type: none"> • operating current of auxiliary contacts at DC-13 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

<ul style="list-style-type: none"> Product function at the relay outputs Switchover delayed/without delay 	No
<ul style="list-style-type: none"> Product function non-volatile 	No

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 	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	
<ul style="list-style-type: none"> removable terminal for auxiliary and control circuit 	No
<ul style="list-style-type: none"> Type of electrical connection for auxiliary and control current circuit 	screw-type terminals
<ul style="list-style-type: none"> type of connectable conductor cross-sections solid 	1x (0.2 ... 2.5 mm ²)
<ul style="list-style-type: none"> Type of connectable conductor cross-sections finely stranded with core end processing 	1x (0.25 ... 1.5 mm ²)
<ul style="list-style-type: none"> Type of connectable conductor cross-sections finely stranded without core end processing 	1x (0.2 ... 1.5 mm ²)
<ul style="list-style-type: none"> Type of connectable conductor cross-sections at AWG conductors solid 	1x (24 ... 14)
<ul style="list-style-type: none"> Type of connectable conductor cross-sections at AWG conductors stranded 	1x (24 ... 14)

<ul style="list-style-type: none"> • connectable conductor cross-section solid 	0.2 ... 2.5 m ²
<ul style="list-style-type: none"> • connectable conductor cross-section finely stranded with core end processing 	0.25 ... 1.5 m ²
<ul style="list-style-type: none"> • connectable conductor cross-section 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

<ul style="list-style-type: none"> • 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 — downwards — at the side 	0 mm
	0 mm
	0 mm
	0 mm
	0 mm
<ul style="list-style-type: none"> • for grounded parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — at the side — downwards 	0 mm
	0 mm
	0 mm
	0 mm
	0 mm
<ul style="list-style-type: none"> • for live parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side 	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
Ambient temperature	
<ul style="list-style-type: none"> • during operation 	-25 ... +55 °C
<ul style="list-style-type: none"> • during storage 	-40 ... +70 °C
<ul style="list-style-type: none"> • during transport 	-40 ... +70 °C

• Relative humidity during operation

15 ... 85 %

Certificates/ approvals

General Product Approval



CCC



UL



RCM



EG-Konf.

[Miscellaneous](#)

Test Certificates

other

[Type Test Certificates/Test Report](#)

[Confirmation](#)

Further information

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

<https://www.siemens.com/ic10>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=7PV1512-1AQ30>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=7PV1512-1AQ30>

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

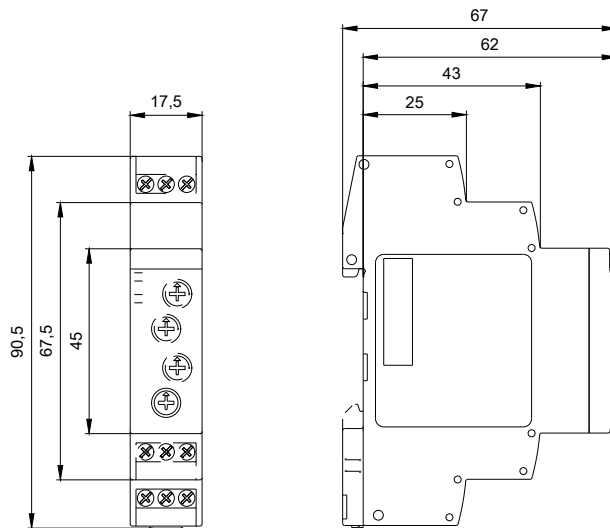
<https://support.industry.siemens.com/cs/ww/en/ps/7PV1512-1AQ30>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=7PV1512-1AQ30&lang=en

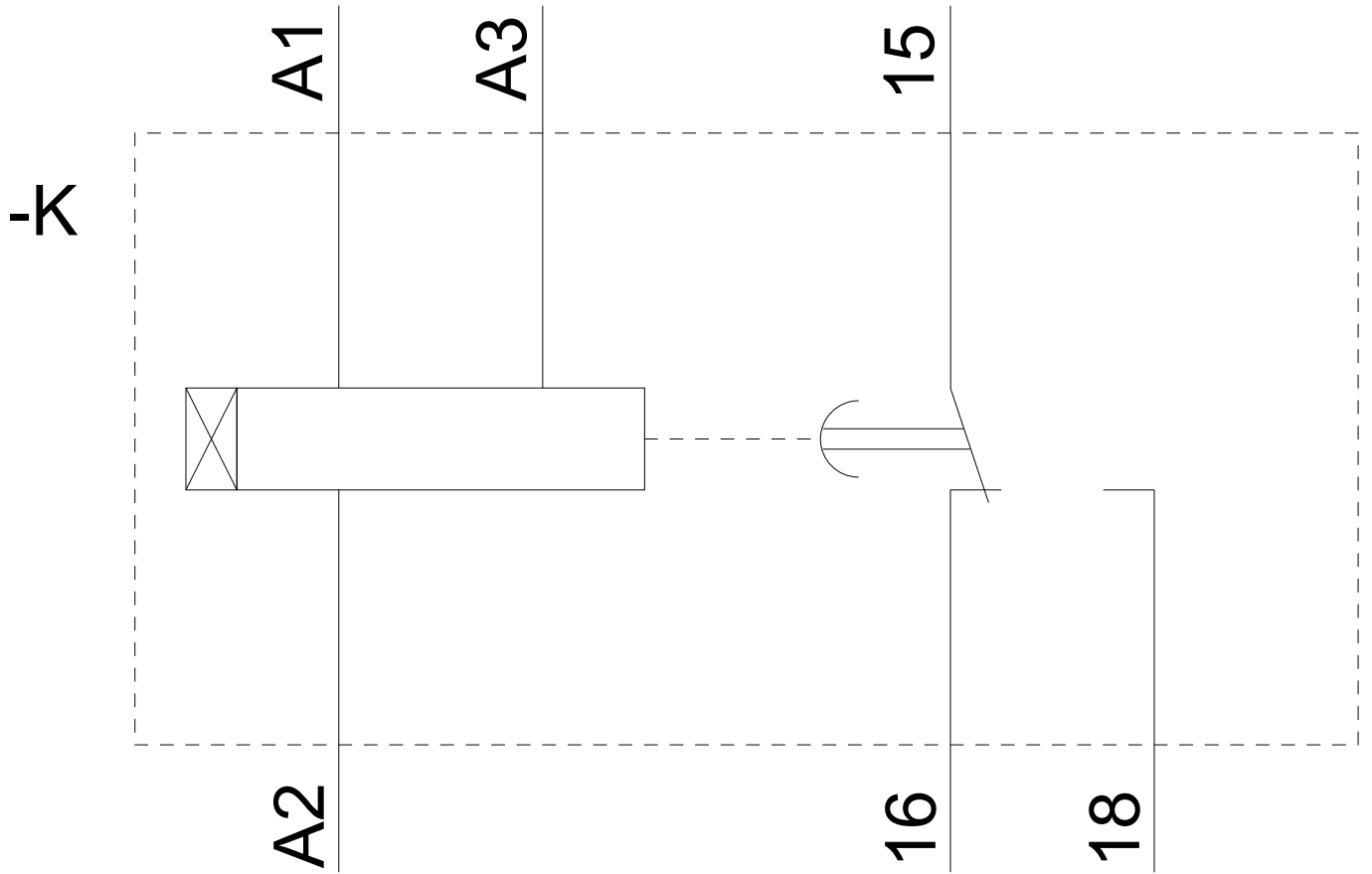
Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/7PV1512-1AQ30/manual>



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





last modified:

08/14/2020