

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	
<b>Product component</b>	
• semi-conductor output	No
<b>Product extension required remote control</b>	No
<b>Product extension optional remote control</b>	No
<b>Power loss [W] total typical</b>	2 W
<b>Test voltage for isolation test</b>	2.2 kV
<b>Degree of pollution</b>	2
<b>Surge voltage resistance rated value</b>	4 000 V
<b>Test voltage for surge voltage test</b>	4 800 V
<b>Protection class IP</b>	IP20
<b>Shock resistance</b>	
• acc. to IEC 60068-2-27	11g / 15 ms
<b>Mechanical service life (switching cycles)</b>	
• typical	10 000 000

<b>Electrical endurance (switching cycles)</b>	
• at AC-15 at 230 V typical	100 000
<b>Adjustable time</b>	0.5 ... 10 s
<b>Relative setting accuracy relating to full-scale value</b>	5 %
<b>Minimum ON period</b>	35 ms
<b>Recovery time</b>	500 ms
<b>Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750</b>	K
<b>Reference code acc. to DIN EN 81346-2</b>	K
<b>Reference code acc. to DIN EN 61346-2</b>	K
<b>Relative repeat accuracy</b>	2 %

#### Control circuit/ Control

<b>Type of voltage of the control supply voltage</b>	AC/DC
<b>Control supply voltage 1 at AC</b>	
• at 50 Hz	100 ... 127 V
• at 60 Hz	100 ... 127 V
<b>Control supply voltage 2 at AC</b>	
• at 50 Hz rated value	24 V
• at 60 Hz rated value	24 V
<b>Control supply voltage frequency 1</b>	50 ... 60 Hz
<b>Control supply voltage 1</b>	
• at DC rated value	24 V
<b>Operating range factor control supply voltage rated value at DC</b>	
• initial value	0.85
• Full-scale value	1.1
<b>Operating range factor control supply voltage rated value at AC at 50 Hz</b>	
• initial value	0.85
• Full-scale value	1.1
<b>Operating range factor control supply voltage rated value at AC at 60 Hz</b>	
• initial value	0.85
• Full-scale value	1.1

#### Switching Function

<b>Switching function</b>	
• ON-delay	Yes
• ON-delay/instantaneous contact	No
• passing make contact	No
• passing make contact/instantaneous contact	No
• OFF delay	No
<b>Switching function</b>	

<ul style="list-style-type: none"> <li>• flashing symmetrically starting with interval/instantaneous</li> </ul>	No
<ul style="list-style-type: none"> <li>• flashing symmetrically starting with interval</li> </ul>	No
<ul style="list-style-type: none"> <li>• flashing symmetrically starting with pulse/instantaneous</li> </ul>	No
<ul style="list-style-type: none"> <li>• flashing symmetrically starting with pulse</li> </ul>	No
<ul style="list-style-type: none"> <li>• flashing asymmetrically starting with interval</li> </ul>	No
<ul style="list-style-type: none"> <li>• flashing asymmetrically starting with pulse</li> </ul>	No
<b>Switching function</b>	
<ul style="list-style-type: none"> <li>• star-delta circuit with delay time</li> </ul>	No
<ul style="list-style-type: none"> <li>• star-delta circuit</li> </ul>	No
<b>Switching function with control signal</b>	
<ul style="list-style-type: none"> <li>• additive ON delay</li> </ul>	No
<ul style="list-style-type: none"> <li>• passing break contact</li> </ul>	No
<ul style="list-style-type: none"> <li>• passing break contact/instantaneous</li> </ul>	No
<ul style="list-style-type: none"> <li>• OFF delay</li> </ul>	No
<ul style="list-style-type: none"> <li>• OFF delay/instantaneous</li> </ul>	No
<ul style="list-style-type: none"> <li>• pulse delayed</li> </ul>	No
<ul style="list-style-type: none"> <li>• pulse delayed/instantaneous</li> </ul>	No
<ul style="list-style-type: none"> <li>• pulse-shaping</li> </ul>	No
<ul style="list-style-type: none"> <li>• pulse-shaping/instantaneous</li> </ul>	No
<ul style="list-style-type: none"> <li>• additive ON delay/instantaneous</li> </ul>	No
<ul style="list-style-type: none"> <li>• ON-delay/OFF-delay</li> </ul>	No
<ul style="list-style-type: none"> <li>• ON-delay/OFF-delay/instantaneous</li> </ul>	No
<ul style="list-style-type: none"> <li>• passing make contact</li> </ul>	No
<ul style="list-style-type: none"> <li>• passing make contact/instantaneous contact</li> </ul>	No
<b>Switching function of interval relay with control signal</b>	
<ul style="list-style-type: none"> <li>• retrotriggerable with deactivated control signal/instantaneous contact</li> </ul>	No
<ul style="list-style-type: none"> <li>• retrotriggerable with activated control signal</li> </ul>	No
<ul style="list-style-type: none"> <li>• retrotriggerable with activated control signal/instantaneous contact</li> </ul>	No
<ul style="list-style-type: none"> <li>• retriggerable with deactivated control signal</li> </ul>	No
<b>Design of the control terminal non-floating</b>	No
<b>Short-circuit protection</b>	
<b>Design of the fuse link</b>	
<ul style="list-style-type: none"> <li>• for short-circuit protection of the auxiliary switch required</li> </ul>	fuse gL/gG: 4 A
<b>Auxiliary circuit</b>	
<b>Material of switching contacts</b>	AgSnO2
<b>Number of NC contacts</b>	
<ul style="list-style-type: none"> <li>• delayed switching</li> </ul>	0

<ul style="list-style-type: none"> <li>instantaneous contact</li> </ul>	0
<b>Number of NO contacts</b>	
<ul style="list-style-type: none"> <li>delayed switching</li> </ul>	0
<ul style="list-style-type: none"> <li>instantaneous contact</li> </ul>	0
<b>Number of CO contacts</b>	
<ul style="list-style-type: none"> <li>delayed switching</li> </ul>	1
<ul style="list-style-type: none"> <li>instantaneous contact</li> </ul>	0
<b>Operating current of auxiliary contacts at AC-15</b>	
<ul style="list-style-type: none"> <li>maximum</li> </ul>	3 A
<ul style="list-style-type: none"> <li>at 24 V</li> </ul>	3 A
<ul style="list-style-type: none"> <li>at 250 V</li> </ul>	3 A
<b>Operating current of auxiliary contacts as NC contact at AC-15</b>	
<ul style="list-style-type: none"> <li>at 24 V</li> </ul>	3 A
<ul style="list-style-type: none"> <li>at 250 V</li> </ul>	3 A
<b>Operating current of auxiliary contacts as NO contact at AC-15</b>	
<ul style="list-style-type: none"> <li>at 24 V</li> </ul>	3 A
<ul style="list-style-type: none"> <li>at 250 V</li> </ul>	3 A
<b>Operating current of auxiliary contacts at DC-13</b>	1 ... 0.01
<b>Operating current of auxiliary contacts at DC-13</b>	
<ul style="list-style-type: none"> <li>at 24 V</li> </ul>	1 A
<ul style="list-style-type: none"> <li>at 125 V</li> </ul>	0.22 A
<ul style="list-style-type: none"> <li>at 250 V</li> </ul>	0.1 A
<b>Operating frequency with 3RT2 contactor maximum</b>	5 000 1/h
<b>Contact reliability of auxiliary contacts</b>	one incorrect switching operation of 100 million switching operations (17 V, 5 mA)
<b>Contact rating of auxiliary contacts according to UL</b>	R150 / B300
<b>Influence of the surrounding temperature</b>	2% in complete temperature range for the set duration
<b>Power supply influence</b>	2% in complete voltage range for the set duration
<b>Switching capacity current with inductive load</b>	0.01 ... 3 A

## Inputs/ Outputs

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

## Electromagnetic compatibility

<b>EMI immunity</b>	
<ul style="list-style-type: none"> <li>acc. to IEC 61812-1</li> </ul>	EN 61000-6-2
<b>Conducted interference</b>	
<ul style="list-style-type: none"> <li>due to burst acc. to IEC 61000-4-4</li> </ul>	2 kV network connection / 1 kV control connection

<ul style="list-style-type: none"> <li>• due to conductor-earth surge acc. to IEC 61000-4-5</li> </ul>	2 kV
<ul style="list-style-type: none"> <li>• due to conductor-conductor surge acc. to IEC 61000-4-5</li> </ul>	1 kV
<b>Field-bound parasitic coupling acc. to IEC 61000-4-3</b>	10 V/m
<b>Electrostatic discharge acc. to IEC 61000-4-2</b>	4 kV contact discharge / 8 kV air discharge

Safety related data	
<b>Protection against electrical shock</b>	finger-safe
<b>Type of insulation</b>	Basic insulation
<b>Category acc. to EN 954-1</b>	none

Connections/Terminals	
<b>Product function</b>	
<ul style="list-style-type: none"> <li>• removable terminal for auxiliary and control circuit</li> </ul>	No
<b>Type of electrical connection</b>	
<ul style="list-style-type: none"> <li>• for auxiliary and control current circuit</li> </ul>	screw-type terminals
<b>Type of connectable conductor cross-sections</b>	
<ul style="list-style-type: none"> <li>• solid</li> </ul>	1x (0.2 ... 2.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>• finely stranded with core end processing</li> </ul>	1x (0.25 ... 1.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>• finely stranded without core end processing</li> </ul>	1x (0.2 ... 1.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>• at AWG conductors solid</li> </ul>	1x (24 ... 14)
<ul style="list-style-type: none"> <li>• at AWG conductors stranded</li> </ul>	1x (24 ... 14)
<b>Connectable conductor cross-section</b>	
<ul style="list-style-type: none"> <li>• solid</li> </ul>	0.2 ... 2.5 m <sup>2</sup>
<ul style="list-style-type: none"> <li>• finely stranded with core end processing</li> </ul>	0.25 ... 1.5 m <sup>2</sup>
<ul style="list-style-type: none"> <li>• finely stranded without core end processing</li> </ul>	0.2 ... 1.5 m <sup>2</sup>
<b>AWG number as coded connectable conductor cross section</b>	
<ul style="list-style-type: none"> <li>• solid</li> </ul>	24 ... 14
<ul style="list-style-type: none"> <li>• stranded</li> </ul>	24 ... 14





Installation/ mounting/ dimensions	
<b>Mounting position</b>	any
<b>Mounting type</b>	snap-on fastening on 35 mm standard rail
<b>Height</b>	90 mm
<b>Width</b>	17.5 mm
<b>Depth</b>	66.7 mm
<b>Required spacing</b>	
<ul style="list-style-type: none"> <li>• with side-by-side mounting <ul style="list-style-type: none"> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— downwards</li> </ul> </li> </ul>	0 mm 0 mm 0 mm 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

<b>Installation altitude at height above sea level</b>	
• maximum	2 000 m
<b>Relative humidity</b>	
• during operation	15 ... 85 %

### Certificates/approvals

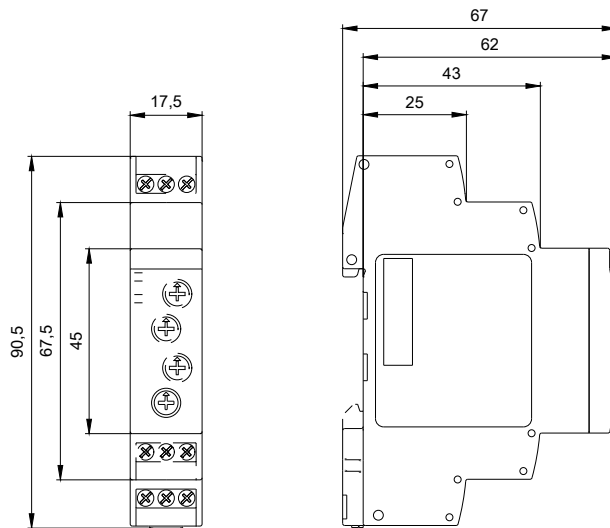
General Product Approval	Declaration of Conformity	Test Certificates
 CCC	 UL	 EAC
	 EG-Konf.	<a href="#">Miscellaneous</a>
		<a href="#">Type Test Certificates/Test Report</a>

### other

[Confirmation](#)

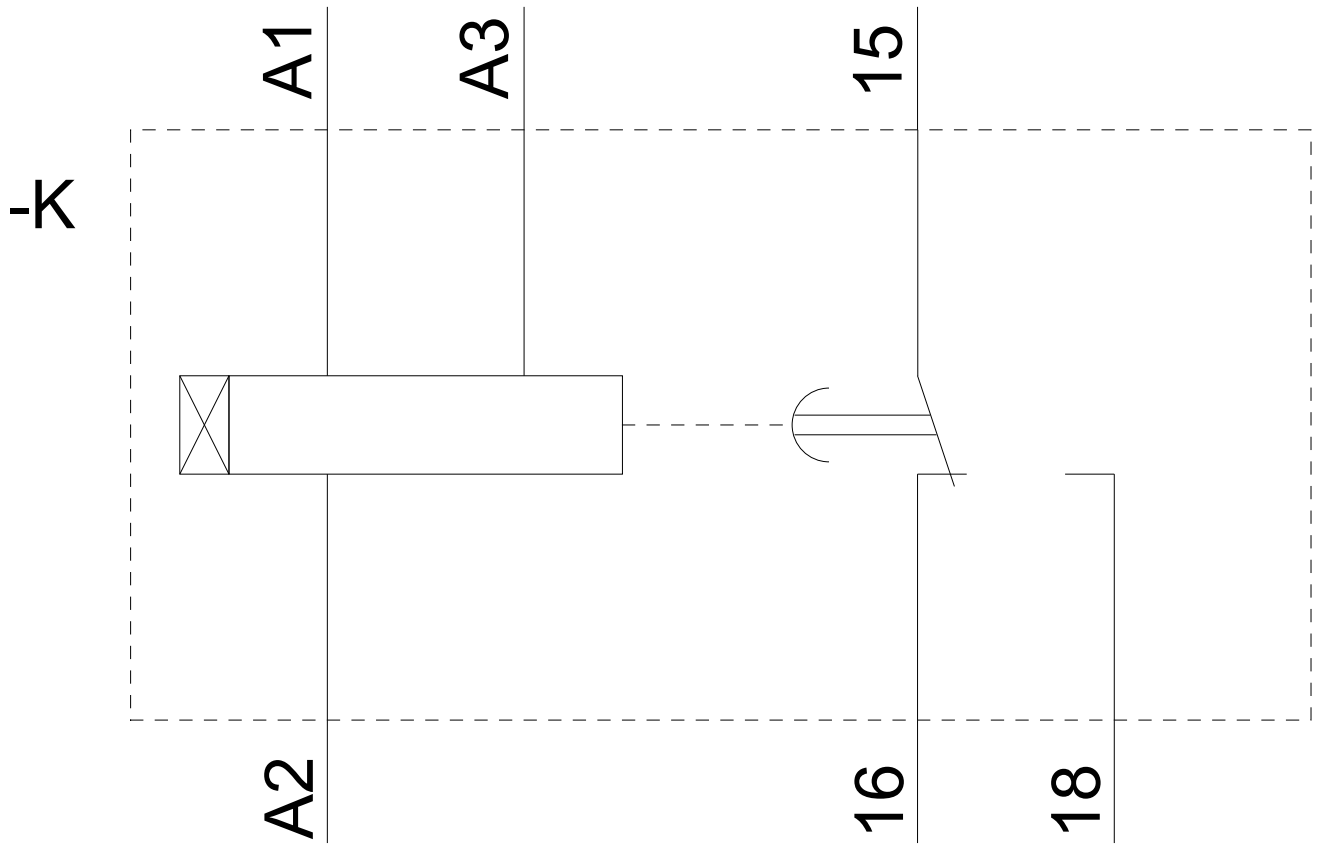
### Further information

- 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?mfb=7PV1512-1AQ30>
- Cax online generator**  
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=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?mfb=7PV1512-1AQ30&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=7PV1512-1AQ30&lang=en)



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





last modified:

06/06/2019