



Control Devices

Preferred and Standard Products

saia-burgess

Smart solutions for comfort and safety

KOP.J

Timer

Electronic 22.5 mm

KOP.J

Characteristics	<ul style="list-style-type: none">■ 22.5 mm■ mono or multifunction■ high immunity to interference
Mounting	<ul style="list-style-type: none">■ surface mounting■ snap-on DIN rail 35 mm
Dimensions (mm)	22.5 x 75 x 109
Functions*	11, 12, 16, 19, 21, 22, 23, 24, 28, 31, 32, 33, 34, 41, 42, 51
Time ranges	12 time ranges, 0.05 s up to 60 h
Outputs	1 relay as change-over, 250 VAC, 8 A
Supply voltage	24...48 VDC or 24...240 VAC, 50/60 Hz



Preferred Range

Ordering Reference	Characteristics
	<ul style="list-style-type: none">■ Multi time range 1 s...60 h■ Supply voltage 24...48 VDC & 24...240 VAC
KOP111J7MWVPN00	Delayed operation
KOP112J7MWVPN00	Delayed release
KOP160J7MWVPN00	Universal 8 functions 111/112/116/121/122/123/124/142+on/off
KOP170J7MWVPN00	Asymmetrical impulser

* 11: delayed operation; 12: delayed release; 16: delayed operation and release; 21: fleeting-on delay timer; 22: fleeting-off delay timer; 23: impulse converter; 24: impulse generator; 42: flasher relay; 28: watchdog; 31/70: asymmetrical timer; 51: star-delta timer; 19: power off delayed release

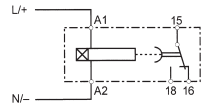
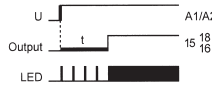
Technical data

Time ranges	0.05...1 s 0.15...3 s 0.5...10 s 1.5...30 s	0.05...1 min 0.15...3 min 0.5...10 min 1.5...30 min	0.05...1 h 0.15...3 h 0.5...10 h 3...60 h
	(multi-versions: time range and function selected from front with screwdriver)		
Setting accuracy	±5% of the time range final value (t_{max})		
Repeat accuracy	±0.2% of preset value		
Reset time	50 ms		
Supply voltage	24...48 VDC or 24...240 VAC, 50/60 Hz (dual voltage)		
Voltage tolerance	±20% (DC), -15%/+10% (AC)		
Power consumption	1.5 W (DC) or 1.5 VA (AC)		
Duty cycle	100%		
Pulse control	supply voltage range, current 1 mA, duration of the control pulse >50 ms (AC), >30 ms (DC), pause >55 ms (DC)		
Output	1 relay as change-over, LED display of output status		
Switching capacity	U = 440 VAC, I_{th} = 8 A, P = 2000 VA 3 A/250 VAC (AC 15), 3 A/440 VAC (AC 14) or 1 A/24 VDC (DC 13) according to IEC		
Insulation characteristics	2 kVAC/50 Hz test voltage according to VDE0435 and 6 kV 1.2/50 ms surge voltage according to EN 60947-5-1 between all inputs and outputs		
EMC/Interference immunity	surge capacity of the power supply according to IEC 1000-4-5: 4 kV 1.2/50 ms burst according to IEC 1000-4-4: 6 kV 6/50 ns ESD according to IEC 1000-4-2: at contact 8 kV, in air 8 kV electromagnetic HF field according to IEC 801-3 and electromagnetic HF signal from wiring arrangement according to IEC 801-6: level 3		
EMC/Emissions	electromagnetic fields according to EN 55022, class B		
Secure isolation	according to VDE 106, part 101		
Protection class	case IP 40, terminals IP 20		
Approvals	UL, C-UL		
Ambient temperature	open	-20°C to +60°C	
	enclosed	-20°C to +45°C	
Connections	screw terminals for 1 x 0.5 mm ² up to 2 x 2.5 mm ² (single wire) or 2 x 1.5 mm ² (multistrand with end sleeve), AWG 14...20, with dual chamber system, screws M3.5 for Pozidrive no.2 (Philips) and no.2 slot, suitable for power screwdrivers (max. 1.2 Nm), finger safe according to VDE 0106		
Mounting	surface mounting; snap-on mounting on DIN rail 35 mm or screw mounting by adapter (accessory) and 2 screws M4, any mounting position		

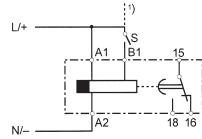
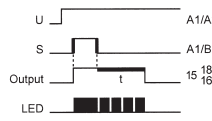
Technical data

Circuit diagrams

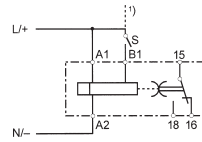
Delayed operation (111)



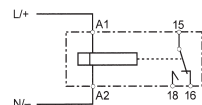
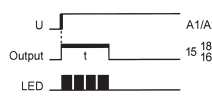
Delayed release (112)



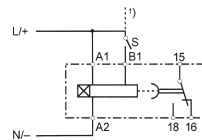
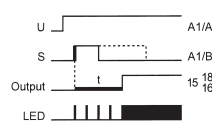
Delayed operation and release (116)



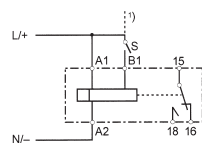
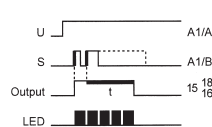
Fleeting-on delay timer (121)



Delayed operation with pulse control (118)



Fleeting-on delay timer with pulse control (128) "watchdog"



KOP 160: universal timer with 10 time ranges and 8 functions (111, 112, 116, 121, 122, 123, 124, 142) plus on/off function for commissioning and maintenance

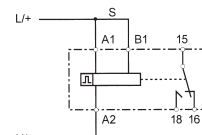
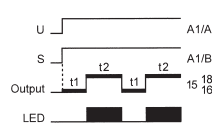
On function



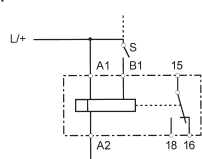
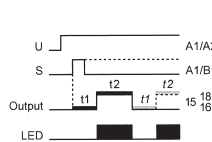
Off function



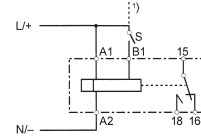
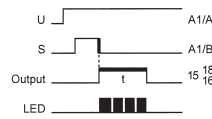
With supply voltage control and starting with pause (131)



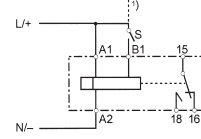
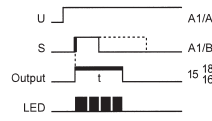
With pulse control and starting with pause (133)



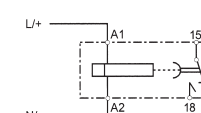
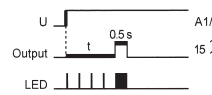
Fleeting-off delay timer (122)



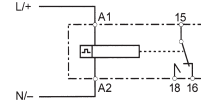
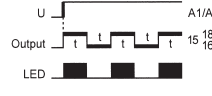
Impulse converter (123)



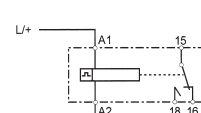
Impulse generator (124)



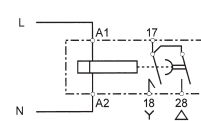
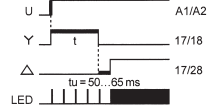
Flasher relay starting with pulse (142)



Flasher relay starting with pause (141)



Star-delta relay (251)

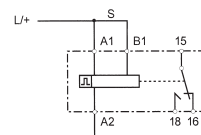
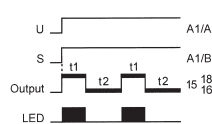


¹⁾ Another voltage than the supply voltage can also be used for pulse control, for example A1-A2 = 230 VAC and B1-A2 = 24VDC.

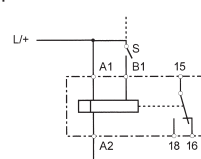
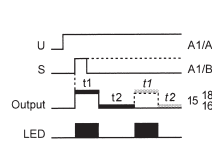
LED status display

- output in rest position, no timing
- ▄▄▄▄ output in rest position, time running
- ▄▄▄▄ output in operating position, no timing
- ▄▄▄▄ output in operating position, time running

With supply voltage control and starting with pulse (132)

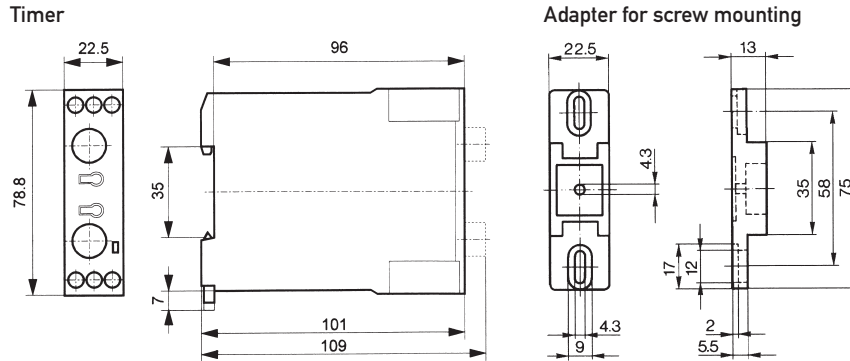


With pulse control and starting with pulse (134)



Technical data

Dimensions



Ordering Reference

Type	KOP					
Function	111	Delayed operation				
	112	Delayed release				
	116	Delayed operation and release				
	118	Delayed operation with pulse control				
	121	Fleeting-on delay timer				
	122	Fleeting-off delay timer				
	123	Impulse converter				
	124	Impulse generator				
	128	Fleeting-on delay timer with pulse control "watchdog"				
	141	Flasher relay starting with pause				
	142	Flasher relay starting with pulse				
	160	Universal timer				
	170	Asymmetrical impulser				
	251	Star-delta relay				
Housing	J7	6 Terminals				
Time ranges	BA	0.05...1 s	GA	0.05...1 min	NA	0.05...1 h
	CA	0.15...3 s	HA	0.15...3 min	PA	0.15...3 h
	EA	0.5...10 s	KA	0.5...10 min	RA	0.5...10 h
	FA	1.5...30 s	LA	1.5...30 min	WA	3...60 h
					MW	Multi time 0.05 s...60 h
Supply voltage	VP	24...240 VAC & 24...48 VDC				
	M1	12 VDC				
	E9	346...440 VAC, (without UL approval)				
	VA	24...240 VAC / VDC				
	N00					
Accessories	CJ260	Adapter for screw mounting				

KOP.K

Timer

Electronic 22.5 mm

KOP.K

Characteristics	■ wide range of capabilities ■ LED
Mounting	■ surface mounting ■ snap-on DIN rail 35 mm
Dimensions (mm)	22.5 x 75 x 109
Functions*	11, 12, 16, 21, 22, 23, 24, 42, 19
Time ranges	10 time ranges, 0.05 s up to 60 h multi time 0.05 up to 60 h
Outputs	2 relays as change-over, instantaneous and/or timer, 250 VAC, 8 A
Supply voltage	24...48 VDC or 24...240 VAC, 50/60 Hz



Preferred Range

Ordering Reference	Characteristics		
	Function	Time range	Supply voltage
KOP511K7MWVPN00	Delayed operation	1 s...60 h	24...48 VDC and 24...240 VAC
KOP512K7MWVPN00	Delayed release	1 s...60 h	24...48 VDC and 24...240 VAC
KOP560K7MWVPN00	Multi function	1 s...60 h	24...48 VDC and 24...240 VAC
KOP119K7MWVPN00	True off delay after power off 1 outp.	0.15 s...10 min	24...240 VAC/DC
KOP219K7MWVPN00	True off delay after power off 2 outp.	0.15 s...10 min	24...240 VAC/DC

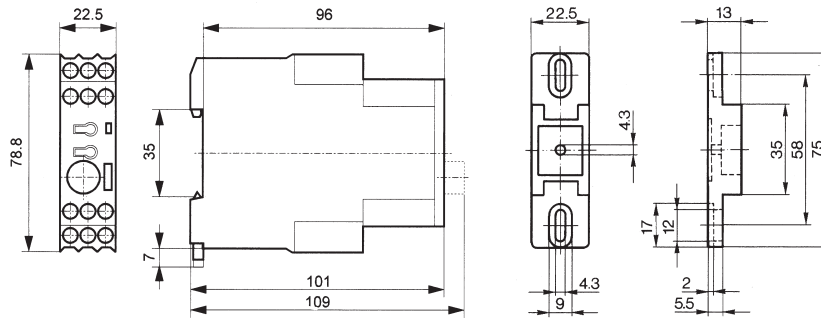
* 11: delayed operation; 12: delayed release; 16: delayed operation and release; 21: fleeting-on delay timer; 22: fleeting-off delay timer; 23: impulse converter; 24: impulse generator; 42: flasher relay; 28: watchdog; 31/70: asymmetrical timer; 51: star-delta timer; 19: power off delayed release

Technical data

Multi time ranges	0.05...1 s 0.15...3 s 0.5...10 s	0.05...1 min 0.15...3 min 0.5...10 min	0.05...1 h 0.15...3 h 0.5...10 h 3...60 h
	(time range and function selected from front with screwdriver)		
Setting accuracy	±5% of the time range final value (t_{max})		
Repeat accuracy	±0.2% of preset value		
Reset time	50 ms		
Supply voltage	24...48 VDC or 24...240 VAC, 50/60 Hz (dual voltage)		
Voltage tolerance	±20% (DC), -15%/+10% (AC)		
Power consumption	1.5 W (DC) or 1.5 VA (AC)		
Duty cycle	100%		
Pulse control	supply voltage range, current 1 mA, duration of the control pulse >50 ms (AC), >30 ms (DC), pause >55 ms (DC)		
Outputs	2 relays as change-over, LED display of output status		
Switching capacity	U = 440 VAC, $I_{th} = 8$ A, P = 2000 VA 3 A/250 VAC (AC 15), 3 A/440 VAC (AC 14) or 1 A/24 VDC (DC 13) according to IEC		
Insulation characteristics	2 kVAC/50 Hz test voltage according to VDE 0435 and 6 kV 1.2/50 ms surge voltage according to EN 60947-5-1 between all inputs and outputs		
EMC/Interference immunity	surge capacity of the power supply according to IEC 1000-4-5: 4 kV 1.2/50 ms burst according to IEC 1000-4-4: 6 kV 6/50 ns ESD according to IEC 1000-4-2: at contact 8 kV, in air 8 kV electromagnetic HF field according to IEC 801-3 and electromagnetic HF signal from wiring arrangement according to IEC 801-6: level 3		
EMC/Emissions	electromagnetic fields according to EN 55022, class B		
Secure isolation	according to VDE 106, part 101		
Protection class	case IP40, terminals IP20		
Approvals	UL, C-UL		
Ambient temperature	open -20°C to +60°C enclosed -20°C to +45°C		
Connections	screw terminals for 1 x 0.5 mm ² up to 2 x 2.5 mm ² (single wire) or 2 x 1.5 mm ² (multistrand with end sleeve), AWG 14...20, with dual chamber system, screws M3.5 for Pozidrive no. 2 (Philips) and no. 2 slot, suitable for power screwdrivers (max. 1.2 Nm), finger safe according to VDE 0106		
Mounting	surface mounting; snap-on mounting on DIN rail 35 mm or screw mounting by adapter (accessory) and 2 screws M4, any mounting position		

KOP.K

Dimensions



Ordering Reference

Type	KOP					
Function	119	Delayed operation				
	219	Delayed release				
	511	Delayed operation and release				
	512	Delayed operation with pulse control				
	560	Fleeting-on delay timer				
Connection	K7	12 screw mounting				
Time ranges	BA	0.05...1 s	GA	0.05...1 min	NA	0.05...1 h
	CA	0.15...3 s	HA	0.15...3 min	PA	0.15...3 h
	EA	0.5...10 s	KA	0.5...10 min	RA	0.5...10 h
					WA	3...60 h
					MW	Multi time 0.05 s...60 h
Supply voltage	VP	24...240 VAC & 24...48 VDC				
	M1	12 VDC				
	E9	346...440 VAC, (without UL approval)				
	VA	24...240 VAC/VDC				
	N00					
Accessories	CJ260	Adapter for screw mounting				