Analogue Time Switches Ex9TA



- **Installation Analogue Time Switches**
- **Operating voltage U_e 230 V AC**
- **Quartz or grid synchrounous time basis**
- **Daily program of integrated time switch**
- **Shortest switching time 30 min.**
- **1 or 3-module width versions**

Installation Analogue Time Switches Ex9TA are suitable for residential and industrial applications. They will find their use everywhere where it is needed to save energy costs and to switch the circuit in regular daily cycles. Shortest switching time is 30 minutes.

Time switches are offered in 1 or 3-modules width versions with Quartz or grid synchrounous time basis.

Type Key

Ex9	TA	M	Q	1NO	230V
Product family	Product	Version	Time basis	Contacts	Operating voltage
Ex9	TA: Analog Time Switches	_: Normal M: Mini	Q: Quartz S: Synchro-nous	1NO 1CO	230V

Certification marks

CE

NOARK

Analogue Time Switches Ex9TA

Analogue Time Switches - mini version

- Synchronous or Quartz time basis
- Daily switching program
- Shortest switching time 30 min.
- Width 1MU



Channels	Contacts	Time basis	Article No.	Type	Packing
1	1NO	Synchronous	103514	Ex9TAMS 1NO 230V	1
1	1NO	Quartz	103515	Ex9TAMQ 1NO 230V	1

Analogue Time Switches

- Quartz time base
- Daily switching program
- Shortest switching time 30 min.
- Width 3MU



Channels	Contacts	Time basis	Article No.	Type	Packing
1	1CO	Quartz	103516	Ex9TAQ 1CO 230V	1

Technical Data Ex9TA

Analogue Time Switches

General parameters

Miniature (1MU width) and standard width (3MU) versions
Quartz or grid synchronous time basis

Electrical parameters

	Ex9TAMS	Ex9TAMQ	Ex9TAQ
Tested according to	EN 60730-1, EN 60730-2-7		
Rated operating voltage U_e	230 V AC	230 V AC 130 V DC	230 V AC 130 V DC
Rated frequency f	50 Hz	50 Hz / DC	50 Hz / DC
Rated current I_e			
AC-1, cos φ 1	16 A		
AC-3, cos φ 0.6	4 A		
Channels	1		
Switch contact	1 NO	1 NO	1 CO
Switching capacity (incandescent lamps)	1000 W	1000 W	1350 W
Rated insulation voltage U_i	2500 V AC	2500 V AC	2500 V AC
Power consumption	1 VA	1 VA	1 VA
Time basis	synchronous	Quartz	Quartz
Accuracy	synchronous to grid	± 2.5 sec./day	± 2.5 sec./day
Power reserve	-	50 hours	150 hours
Charging time	-	100 hours	70 hours
Switching program	daily		
Shortest switching time	30 min.		
Programmable	every 30 min.		
Manual switch	Auto / fix ON		Auto / fix ON / fix OFF

Mechanical parameters

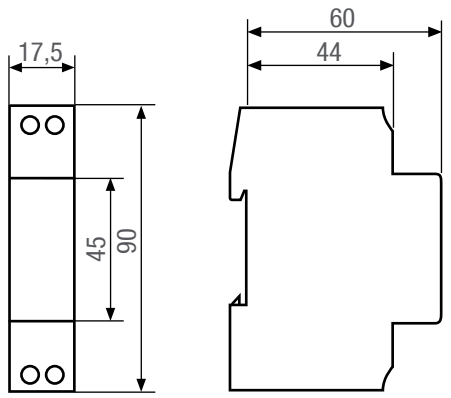
Device width	17.5 mm	17.5 mm	52.5 mm
Device height	90 mm	90 mm	85 mm
Frame size	45 mm		
Mounting	onto 35 mm device rail (DIN)		
Degree of protection	IP20		
Terminals	screw terminals		
Terminal capacity	1 — 4 mm^2	2x 4 mm^2	2x 2.5 mm^2
Fastening torque of terminals	1.2 Nm	1.2 Nm	1.2 Nm
Ambient temperature	-25°C — +55°C	-20°C — +55°C	
Installation class	II		
Sealable	yes		
Weight	0.1 kg	0.11 kg	0.17 kg

Technical Data Ex9TA

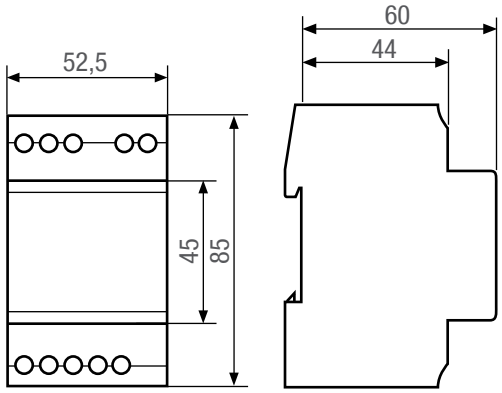
Analogue Time Switches

Dimensions

Ex9TAMS / Ex9TAMQ

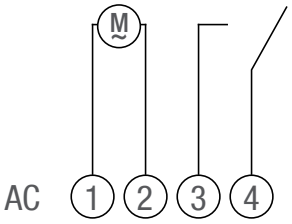


Ex9TAQ

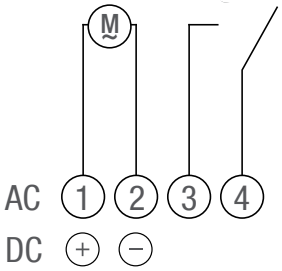


Wiring diagrams

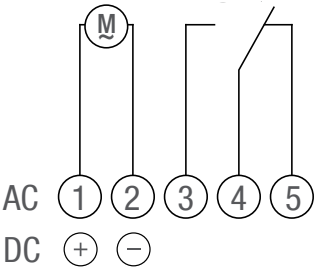
Ex9TAMS



Ex9TAMQ



Ex9TAQ



Digital Time Switches Ex9TD



- **Installation Digital Time Switches**
- **Weekly and Holiday switching program**
- **Switching status LCD display**
- **Quartz time base**
- **Auto summer and wintertime change**
- **Miniature (1MU) and standard (2MU) width versions**

Installation Digital Time Switches Ex9TD are suitable for time control and switching in various residential and industrial applications. They are fully programmable in every 1 minute and they are working in weekly and holiday switching program.

With these properties, it is possible to set the switching pattern exactly to as required and save energy costs.

These Time Switches are offered in 1MU wide miniature version Ex9TDM and 2MU wide version Ex9TD which is available also with comfort functions as Ex9TDC.

To determine the current status and setting up the time switch each device is equipped with LCD display.

Type Key

Ex9	TD	M		1CO	230V
Product family	Product	Size	Functions	Contacts	Operating voltage
Ex9	TD: Digital Time Switches	_: Normal M: Mini	_: Standard C: Comfort	1CO: 1CO 2CO: 2CO/ 1CO+1NO	230V

Certification marks

CE

Digital Time Switches Ex9TD

Digital Time Switches - mini version

- Programmable every 1 min.
- Shortest switching time 1 min.
- Weekly and Holiday switching program
- Quartz time basis
- Width 1MU



Channels	Contacts	Comfort functions	Article No.	Type	Packing
1	1CO	-	103509	Ex9TDM 1CO 230V	1

Digital Time Switches

- Programmable every 1 min.
- Weekly and Holiday switching program, Free weekday block
- Backlighted switching state LCD display
- Quartz time basis
- Comfort functions (Ex9TDC): 100 memory spaces, random switching, external input, PC programming, 1 sec. shortest switching time, pulse and cycle switching program, 10 years power reserve, Astro program
- Width 2MU



Channels	Contacts	Comfort functions	Article No.	Type	Packing
1	1CO	-	103510	Ex9TD 1CO 230V	1
2	2CO	-	103511	Ex9TD 2CO 230V	1
1	1CO	yes	103512	Ex9TDC 1CO 230V	1
2	1CO + 1NO	yes	103513	Ex9TDC 2CO 230V	1

Technical Data Ex9TD

Digital Time Switches

General parameters

Miniature (1MU) or standard width (2MU) versions
Switching state LCD display
Weekly and Holiday switching program
Auto summer/wintertime change

Electrical parameters

	Ex9TDM	Ex9TD	Ex9TDC
Tested according to	EN 60730-1, EN 60730-2-7		
Rated operating voltage U_e	230 V AC	110-230 V AC	110-230 V AC 24 V AC/DC
Rated frequency f	50/60 Hz	50/60 Hz	50/60 Hz
Rated current I_e			
AC-1, cos φ 1	16 A	16 A	
AC-3, cos φ 0.6	8 A	10 A	
Rated insulation voltage U_i	2500 V AC	2500 V AC	2500 V AC
Power consumption	5 VA	1 VA	1 VA
Rated load AC1 / AC15	-	4000 VA / 750 VA	
Channels	1	1 / 2	1 / 2
Switch contact	1 CO	1CO / 2CO	1CO / 1CO+1NO
Switching capacity AC			
Incandescent lamps	1000 W	2600 W	
Fluorescent lamps (uncorrected)	-	1000 VA	
Fluorescent lamps (serial corrected)	-	1000 VA	
Fluorescent lamps (paralel corrected)	-	730 VA	
Fluorescent lamps (duo)	-	1000 VA	
Halogen lamps	-	2600 W	
Compact fluorescent lamps	-	22x7 W / 18x11 W / 16x15 W / 16x20 W / 14x23 W	
Energy saving lamps	-	37x7 W / 30x11 W / 26x15 W / 26x20 W / 11x23 W	
Sw. capacity DC (24V / 50V / 220V)	800 / 300 / 150 mA		
Min. switching load	-	300 mW	
Shortest switching time	1 min.	1 min.	1 sec.
Programmable	every 1 min.	every 1 min.	every 1 min.
PC programming	-	-	yes
Weekly switching program	ON/OFF	ON/OFF	ON/OFF, Pulse, Cycle
Holiday switching program	ON/OFF	ON/OFF, OFF	ON/OFF, Pulse, Cycle, OFF
Free weekday block	-	yes	yes
Manual switch	ON/OFF	Auto / Override / ON/OFF	Auto / Override / ON/OFF
Astro program	-	-	yes
Auto summer/wintertime change	yes	yes	yes
Switching state display	yes	yes, backlight	yes, backlight
Time basis	Quartz	Quartz	Quartz
Accuracy	± 1 sec./day	± 0.5 sec./day	± 0.3 sec./day
Power reserve (at +20°C)	3 years	3 years	10 years
Replaceable battery type	CR2032	CR2032	CR2450
Memory spaces	50	70	100
Hour counter	-	yes	yes
PIN coded setup	-	yes	yes
Random switching	-	-	yes
External input	-	-	yes

Technical Data Ex9TD

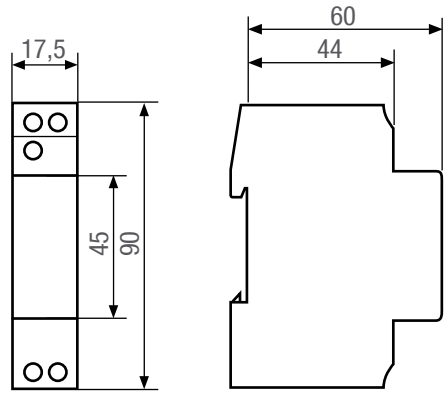
Digital Time Switches

Mechanical parameters

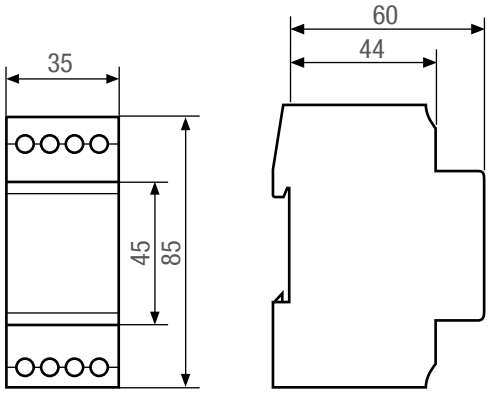
	Ex9TDM	Ex9TD	Ex9TDC
Device width	17.5 mm	35 mm	35 mm
Device height	90 mm	85 mm	85 mm
Frame size	45 mm		
Mounting	onto 35 mm device rail (DIN)		
Degree of protection	IP20		
Terminals	screw terminals		
Terminal capacity	2.5 mm^2	1 — 4 mm^2	1 — 4 mm^2
Fastening torque of terminals	1.2 Nm	1.2 Nm	1.2 Nm
Ambient temperature	-10°C — +55°C	-25°C — +55°C	-25°C — +55°C
Installation class	II		
Weight	0.1 kg	0.17 kg	0.17 kg

Dimensions

Ex9TDM

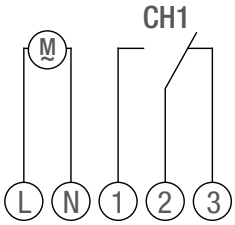


Ex9TD / Ex9TDC

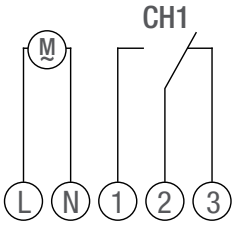


Wiring diagrams

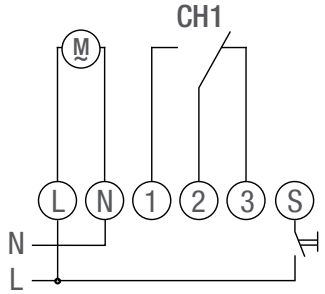
Ex9TDM



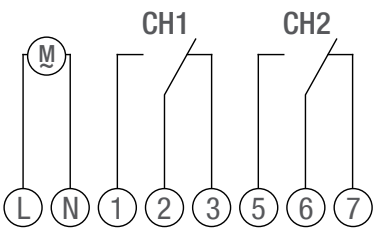
Ex9TD 1CO



Ex9TDC 1CO



Ex9TD 2CO



Ex9TDC 1CO+1NO

