

# Analogue Time Switches Ex9TA

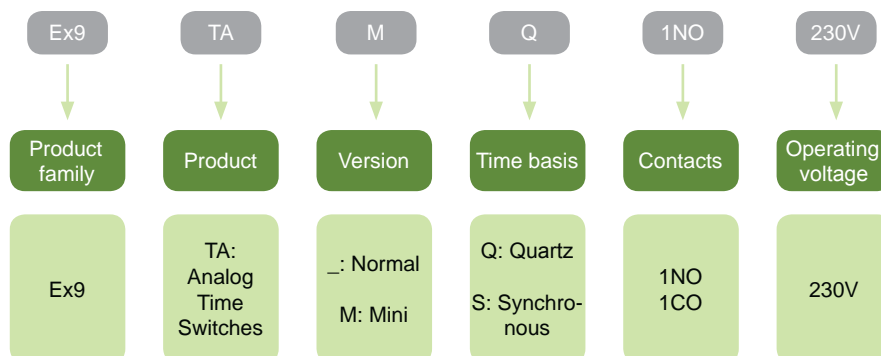


- Installation Analogue Time Switches
- Operating voltage  $U_e$  230 V AC
- Quartz or grid synchronous time basis
- Daily program of integrated time switch
- Shortest switching time 30 min.
- 1 or 3-module width versions

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 synchronous time basis.

## Type Key



## Certification marks



# 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, $\cos \varphi$ 1	16 A		
AC-3, $\cos \varphi$ 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	$\pm 2.5$ sec./day	$\pm 2.5$ 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

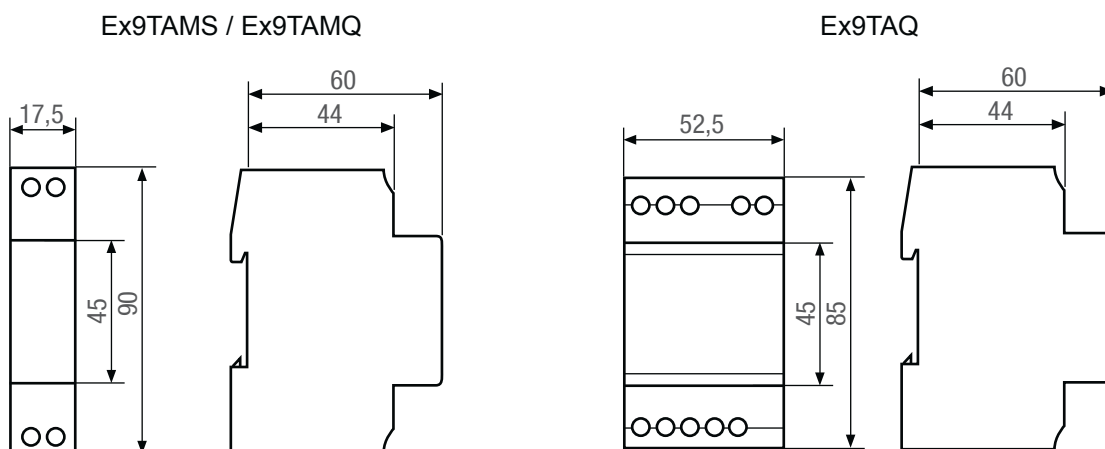
### Mechanical parameters

	Ex9TAMS	Ex9TAMQ	Ex9TAQ
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 <sup>2</sup>	2x 4 mm <sup>2</sup>	2x 2.5 mm <sup>2</sup>
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

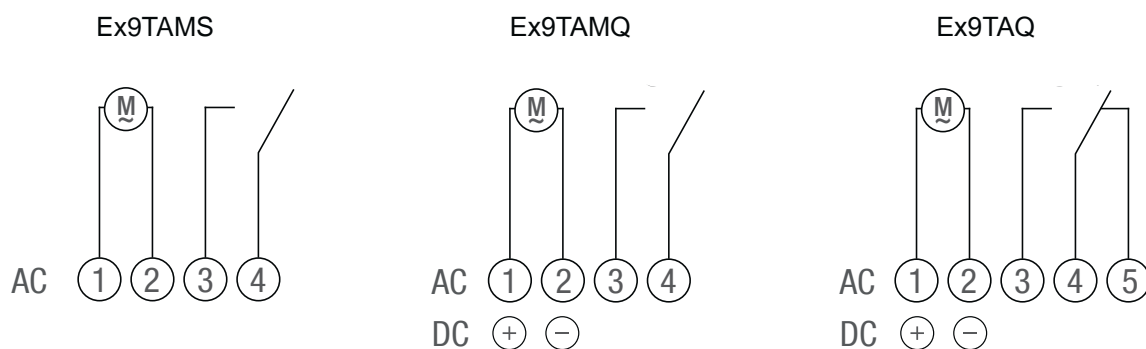
# Technical Data Ex9TA

## Analogue Time Switches

### Dimensions



### Wiring diagrams



# 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

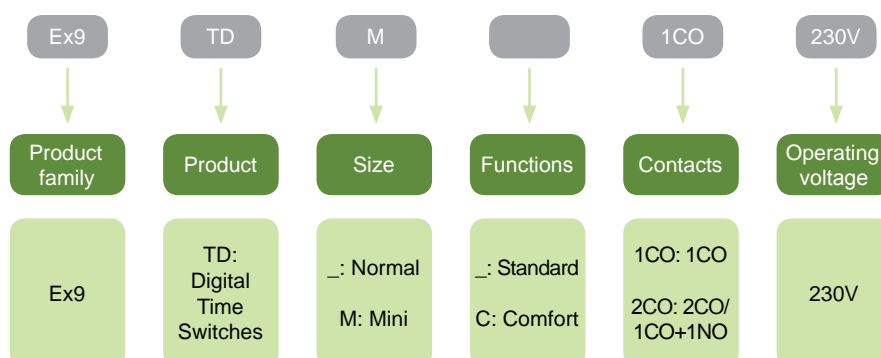
Installation Digital Time Switches Ex9TD are suitable for time control and switching in various residential and industrial applications. They are fully programmable in every 1 minute and they are working in weekly and holiday switching program.

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



## Certification marks



# 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, $\cos \varphi 1$	16 A		16 A
AC-3, $\cos \varphi 0.6$	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 (parallel 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	$\pm 1$ sec./day	$\pm 0.5$ sec./day	$\pm 0.3$ 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

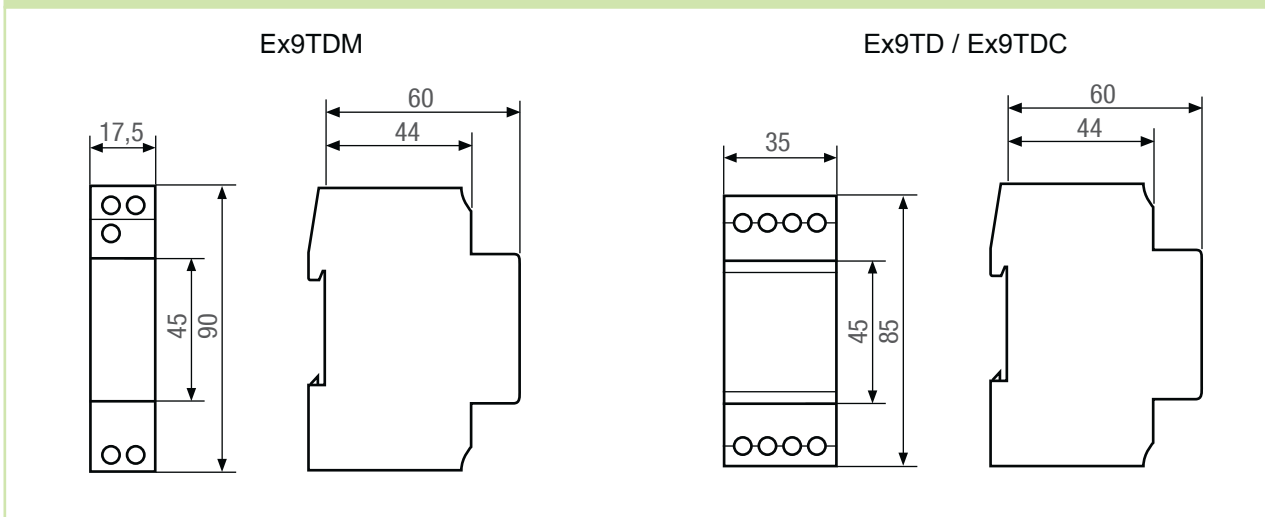
# Technical Data Ex9TD

## 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 <sup>2</sup>	1 — 4 mm <sup>2</sup>	1 — 4 mm <sup>2</sup>
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



### Wiring diagrams

