

## Features

### Mechanical time switches

- Daily time setting \*
- Weekly time setting \*\*

- **Type 12.01** - 1 Pole 16 A CO (SPDT)  
35.8 mm width
- **Type 12.11** - 1 Pole 16 A NO (SPST-NO)  
17.6 mm width
- **Type 12.31-0000** daily -  
1 Pole 16 A CO (SPDT)
- **Type 12.31-0007** weekly -  
1 Pole 16 A CO (SPDT)
- Minimum time interval setting:  
1h (12.31-0007)  
30 min (12.01)  
15 min (12.11 - 12.31-0000)

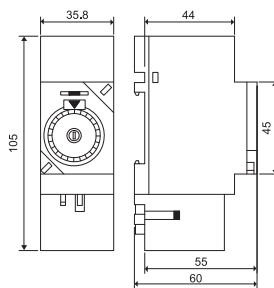
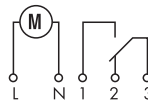
\* Same program every day

\*\* Different program possible for each of the 7 days of the week

### 12.01



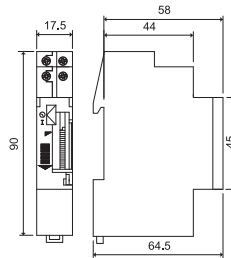
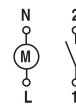
- Mechanical daily time switch
- 1 CO (SPDT)
- 35 mm rail (EN 60715) mount



### 12.11



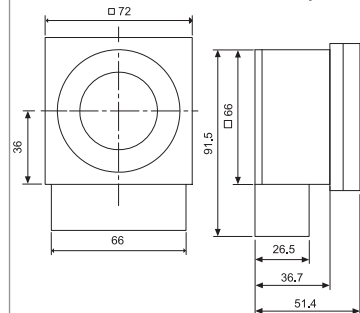
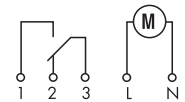
- Mechanical daily time switch
- 1 NO (SPST-NO)
- 35 mm rail (EN 60715) mount



### 12.31



- Mechanical daily or weekly
- 1 CO (SPDT)
- Front panel mounting



### Contact specification

Contact configuration	1 CO (SPDT)	1 NO (SPST-NO)	1 CO (SPDT)
Rated current/Maximum peak current A	16/—	16/30	16/—
Rated voltage/Maximum switching voltage V AC	250/—	250/—	250/—
Rated load AC1 VA	4,000	4,000	4,000
Rated load AC15 (230 V AC) VA	750	420	420
Nominal lamp rating: incandescent (230 V) W	2,000 (NO contact)	2,000	2,000
compensated fluorescent (230 V) W	750 (NO contact)	750	750
uncompensated fluorescent (230 V) W	1,000 (NO contact)	1,000	1,000
halogen (230 V) W	2,000 (NO contact)	2,000	2,000
Minimum switching load mW (V/mA)	1,000 (10/10)	1,000 (10/10)	1,000 (10/10)
Standard contact material	AgCdO	AgCdO	AgCdO

### Supply specification

Nominal voltage (U <sub>N</sub> )	V AC (50/60 Hz)	230	230	120 - 230
	V DC	—	—	—
Rated power AC/DC	VA (50 Hz)/W	2/—	2/—	2/—
Operating range	AC (50 Hz)	(0.85...1.1)U <sub>N</sub>	(0.85...1.1)U <sub>N</sub>	(0.85...1.1)U <sub>N</sub>
	DC	—	—	—

### Technical data

Electrical life at rated load in AC1	cycles	50 · 10 <sup>3</sup>	50 · 10 <sup>3</sup>	50 · 10 <sup>3</sup>
Type of time switch		daily	daily	daily   weekly
Switching intervals /day		48	96	96   24 (168/week)
Minimum switching interval	min	30	15	15   60
Accuracy	s/day	1.5	1.5	1.5
Ambient temperature range	°C	-5...+50	-5...+50	-10...+50
Protection category		IP 20	IP 20	IP 20

### Approvals (according to type)



## Features

### Electronic digital time switches

#### - Weekly time setting

- **Type 12.21** - 1 Pole 16 A CO (SPDT)  
35.8 mm width
- **Type 12.22** - 2 Pole 16 A CO (DPDT)  
35.8 mm width
- **Type 12.71** - 1 Pole 16 A CO (SPDT)  
17.6 mm width
- Available for 230 V AC or 12, 24 V AC/DC supply
- Minimum time interval setting - 1 minute
- Internal battery for set-up without supply
- Impulse output function:  
- 1s... 59: 59(mm:ss)
- Automatic adjustment for daylight saving
- 35 mm rail (EN 60715) mount

	12.21	12.22	12.71
	<ul style="list-style-type: none"> <li>• Digital weekly time switch</li> <li>• 1 CO (SPDT)</li> <li>• 35 mm rail (EN 60715) mount</li> </ul>	<ul style="list-style-type: none"> <li>• Digital weekly time switch</li> <li>• 2 CO (DPDT)</li> <li>• 35 mm rail (EN 60715) mount</li> </ul>	<ul style="list-style-type: none"> <li>• Digital weekly time switch</li> <li>• 1 CO (SPDT)</li> <li>• 35 mm rail (EN 60715) mount</li> </ul>
<b>Contact specification</b>			
Contact configuration	1 CO (SPDT)	2 CO (DPDT)	1 CO (SPDT)
Rated current/Maximum peak current A	16/30	16/30	16/30
Rated voltage/Maximum switching voltage V AC	250/—	250/—	250/—
Rated load AC1 VA	4,000	4,000	4,000
Rated load AC15 (230 V AC) VA	750	750	420
Nominal lamp rating: incandescent (230 V) W	2,000 (NO contact)	2,000 (NO contact)	2,000 (NO contact)
compensated fluorescent (230 V) W	420 (NO contact)	420 (NO contact)	750 (NO contact)
uncompensated fluorescent (230 V) W	1,000 (NO contact)	1,000 (NO contact)	1,000 (NO contact)
halogen (230 V) W	2,000 (NO contact)	2,000 (NO contact)	2,000 (NO contact)
Minimum switching load mW (V/mA)	1,000 (10/10)	1,000 (10/10)	1,000 (10/10)
Standard contact material	AgCdO	AgCdO	AgNi
<b>Supply specification</b>			
Nominal voltage (U <sub>N</sub> )	V AC (50/60 Hz)	— 120 - 230	— 120 - 230
	V AC/DC	12 - 24 —	24 —
Rated power AC/DC VA (50 Hz)/W	1.4/1.4 2/—	1.4/1.4 2/—	1.4/1.4 2/—
Operating range	AC (50 Hz)	(0.9...1.1)U <sub>N</sub> (0.85...1.1)U <sub>N</sub>	(0.9...1.1)U <sub>N</sub> (0.85...1.1)U <sub>N</sub>
	DC	(0.9...1.1)U <sub>N</sub> —	(0.9...1.1)U <sub>N</sub> —
<b>Technical data</b>			
Electrical life at rated load in AC1 cycles	50 · 10 <sup>3</sup>	50 · 10 <sup>3</sup>	50 · 10 <sup>3</sup>
Type of time switch	weekly	weekly	weekly
Memory locations for switching times *	30	30	30
Minimum interval setting min	1	1	1
Accuracy s/day	1.5	1.5	1.5
Ambient temperature range °C	-30...+55	-30...+55	-30...+55
Protection category	IP 20	IP 20	IP 20
<b>Approvals</b> (according to type)			

## Features

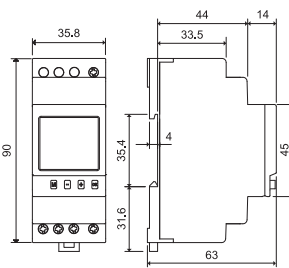
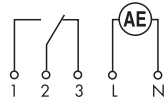
Electronic digital time switches  
- weekly time setting

- **Type 12.91...0000 "ZENITH"**  
1 pole 16 A CO (SPDT)  
35.8 mm width
- **Type 12.91...0090 "ZENITH"**  
1 pole 16 A CO (SPDT)  
35.8 mm width  
version for programming via PC by a special Key Memory (included)
- **Type 12.92 "ZENITH"**  
2 Pole 16 A CO (DPDT)  
35.8 mm width
- Astro program:  
calculation of sunrise and sunset times through date, time and location coordinates (longitude and latitude)
- Offset function: allows programming of switching times offset (+ or -) from the astrological time
- Minimum time interval setting - 1 minute
- Internal battery for set-up without supply
- Automatic adjustment for daylight saving
- 35 mm rail (EN 60715) mount

### 12.91...0000



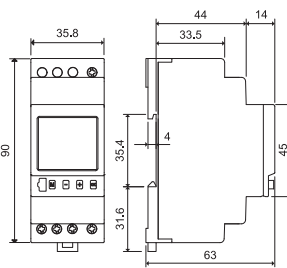
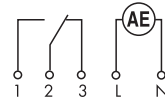
- Digital weekly time switch
- 1 CO (SPDT)
- 35 mm rail (EN 60715) mount



### NEW 12.91...0090



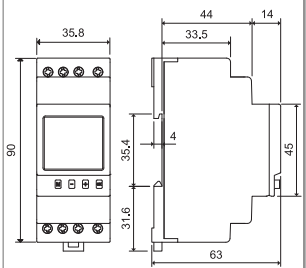
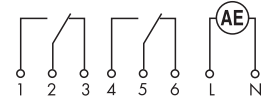
- Digital weekly time switch
- 1 CO (SPDT)
- Version for programming via PC by a special key memory
- 35 mm rail (EN 60715) mount



### 12.92



- Digital weekly time switch
- 2 CO (DPDT)
- 35 mm rail (EN 60715) mount



## Contact specification

Contact configuration	1 CO (DPDT)	1 CO (DPDT)	2 CO (DPDT)
Rated current/Maximum peak current	A 16/30	A 16/30	A 16/30
Rated voltage/Maximum switching voltage V AC	250/—	250/—	250/—
Rated load AC1	VA 4,000	VA 4,000	VA 4,000
Rated load AC15 (230 V AC)	VA 750	VA 750	VA 750
Nominal lamp rating: incandescent (230 V) W	2,000 (NO contact)	2,000 (NO contact)	2,000 (NO contact)
compensated fluorescent (230 V) W	420 (NO contact)	420 (NO contact)	420 (NO contact)
uncompensated fluorescent (230 V) W	1,000 (NO contact)	1,000 (NO contact)	1,000 (NO contact)
halogen (230 V) W	2,000 (NO contact)	2,000 (NO contact)	2,000 (NO contact)
Minimum switching load	mW (V/mA) 1,000 (10/10)	mW (V/mA) 1,000 (10/10)	mW (V/mA) 1,000 (10/10)
Standard contact material	AgSnO <sub>2</sub>	AgSnO <sub>2</sub>	AgSnO <sub>2</sub>

## Supply specification

Nominal voltage (U <sub>N</sub> )	V AC (50/60 Hz) 230	V AC (50/60 Hz) 230	V AC (50/60 Hz) 230
Rated power AC/DC	VA (50 Hz)/W 2/—	VA (50 Hz)/W 2/—	VA (50 Hz)/W 2/—
Operating range	AC (50 Hz) (0.85...1.1)U <sub>N</sub>	AC (50 Hz) (0.85...1.1)U <sub>N</sub>	AC (50 Hz) (0.85...1.1)U <sub>N</sub>

## Technical data

Electrical life at rated load in AC1	cycles 50 · 10 <sup>3</sup>	cycles 50 · 10 <sup>3</sup>	cycles 50 · 10 <sup>3</sup>
Type of time switch	weekly	weekly	weekly
Memory locations for switching times *	60	60	60
Minimum interval setting	min 1	min 1	min 1
Accuracy	s/day 1.5	s/day 1.5	s/day 1.5
Ambient temperature range	°C -30...+55	°C -30...+55	°C -30...+55
Protection category	IP 20	IP 20	IP 20

## Approvals (according to type)



\* Switching times in memory may be used more than once i.e. when selected for different days.

## Ordering information

Example: 12 series, mechanical daily time switch, 1 CO (SPDT) 16 A, supply voltage 230 V AC.

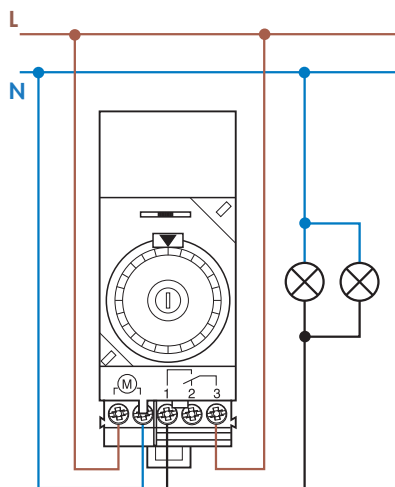
**1 2 . 0 1 . 8 . 2 3 0 . 0 0 0 0**

- Series** \_\_\_\_\_
- Type** \_\_\_\_\_
  - 0 = Daily, 35.8 mm wide
  - 1 = Daily, 17.5 mm wide
  - 3 = Daily or Weekly, 72x72 mm
  - 2 = Weekly, 35.8 mm wide
  - 7 = Weekly, 17.5 mm wide
  - 9 = Weekly "Astro", 35.8 mm wide
- No. of poles** \_\_\_\_\_
  - 1 = 1 CO (SPDT), 16 A
  - 2 = 2 CO (DPDT), 16 A (type 12.22 and 12.92)
- Option** \_\_\_\_\_
  - 0 = With power back-up
  - 1 = Without power back-up (type 12.11)
- Supply voltage** \_\_\_\_\_
  - 012 = 12 V AC/DC
  - 024 = 24 V AC/DC
  - 120 = 120 V AC
  - 230 = 230 V AC
- Supply version** \_\_\_\_\_
  - 0 = AC (50/60 Hz)/DC (types 12.21.0.012, 12.21.0.024, 12.22.0.024, 12.71.0.024)
  - 8 = AC (50/60 Hz)
- Option** \_\_\_\_\_
  - 0 = Daily only for 12.31
  - 7 = Weekly only for 12.31
- Special version** \_\_\_\_\_
  - 0 = Standard
  - 9 = Programming via PC type 12.91.8.230.0090

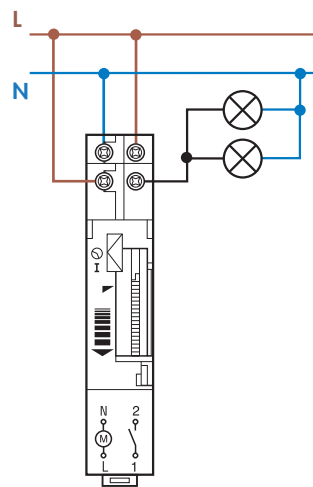
## Technical data

Insulation	12.01, 12.11, 12.31		12.21, 12.22, 12.71, 12.91, 12.92	
Dielectric strength between open contacts V AC	1,000		1,000	
Other data	12.01, 12.11, 12.31		12.21, 12.22, 12.71, 12.91, 12.92	
Power back-up	70 h (following 80 h continuous energisation)		6 years	
Power lost to the environment				
without contact current W	1.5		2	
with rated current W	2.5		3 (for 1 pole)	4 (for 2 pole)
⊕ Screw torque Nm	1.2		1.2	
Max. wire size	solid cable		solid cable	
	mm <sup>2</sup>	1x6 / 2x4	1x6 / 2x2.5	1x6 / 2x4
	AWG	1x10 / 2x12	1x10 / 2x14	1x10 / 2x12
			solid cable	stranded cable
			1x6 / 2x4	1x6 / 2x2.5
			1x10 / 2x12	1x10 / 2x14

## Wiring diagrams

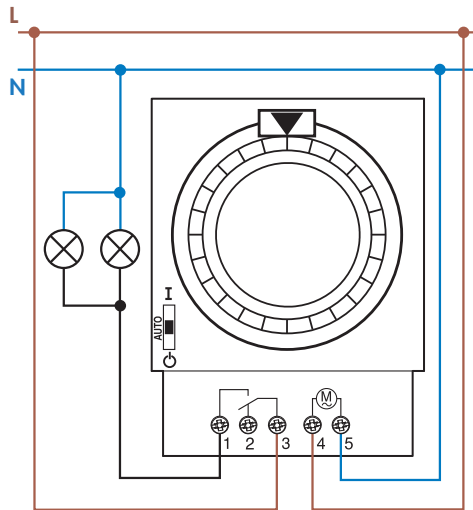


**Type 12.01**  
 Selector switch:  
 ○ = Permanently OFF  
 AUTO = Automatic  
 I = Permanently ON

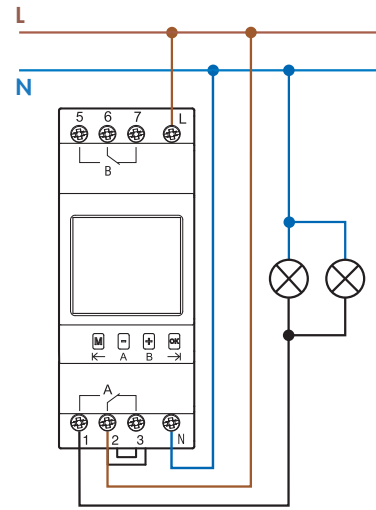


**Type 12.11**  
 Selector switch:  
 ○ = Automatic  
 I = Permanently ON

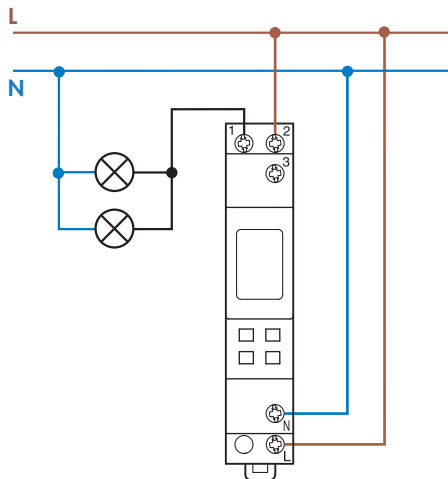
Wiring diagrams



Type 12.31



Type 12.21  
12.22  
12.91  
12.92



Type 12.71

Accessories

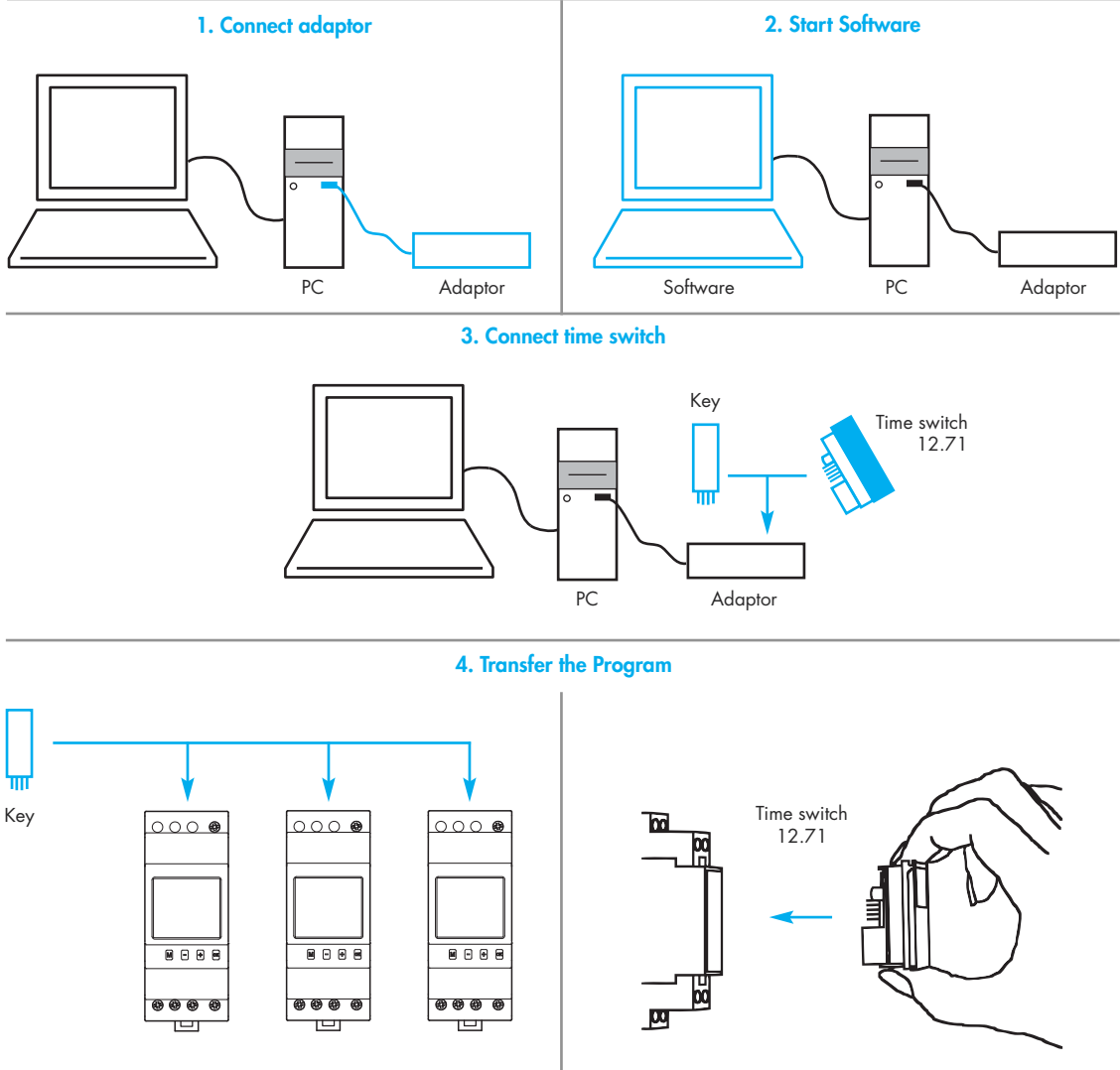


012.90

**PC programming kit** for type 12.71, 12.91.8.230.0090 | 012.90

This special PC programming kit, permits fast and easy programming of the Time Switch with a PC or Laptop. The program transfer can be done by the special Key Memory (supplied with the 12.91.8.230.0090) or directly by the Time switch 12.71.

Contents: Programming adaptor, USB cable (1.8 meter length), Software.



PC Programming software

Easy and intuitive software to create programs for the Time Switch, in a few fast steps. For Windows 2000/XP/Vista.

