

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)

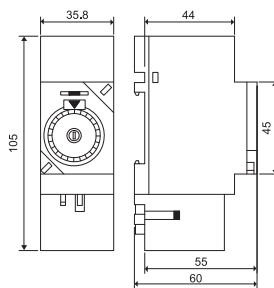
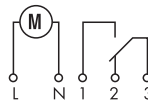
* Same program every day

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

12.01



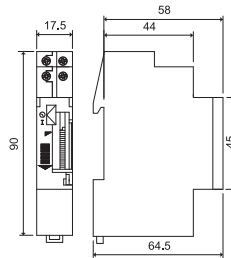
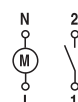
- Mechanical daily time switch
- 1 CO (SPDT)
- 35 mm rail (EN 60715) mount



12.11



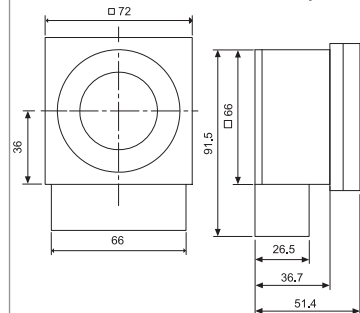
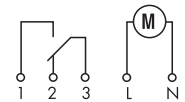
- Mechanical daily time switch
- 1 NO (SPST-NO)
- 35 mm rail (EN 60715) mount



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 _N)	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 _N	(0.85...1.1)U _N	(0.85...1.1)U _N
	DC	—	—	—

Technical data

Electrical life at rated load in AC1	cycles	50 · 10 ³	50 · 10 ³	50 · 10 ³
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)




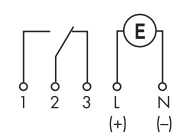
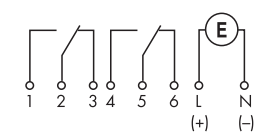
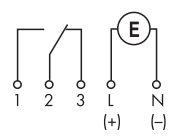
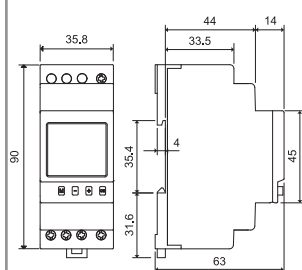
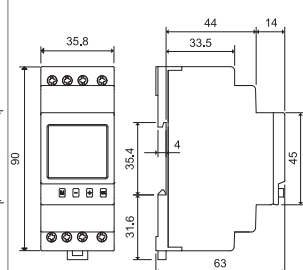
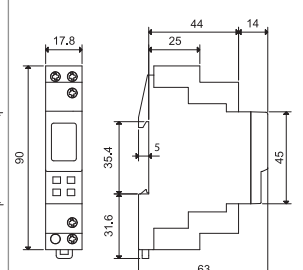




Features

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"> • Digital weekly time switch • 1 CO (SPDT) • 35 mm rail (EN 60715) mount 	<ul style="list-style-type: none"> • Digital weekly time switch • 2 CO (DPDT) • 35 mm rail (EN 60715) mount 	<ul style="list-style-type: none"> • Digital weekly time switch • 1 CO (SPDT) • 35 mm rail (EN 60715) mount 	
				
				
Contact specification				
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	
Supply specification				
Nominal voltage (U _N)	V AC (50/60 Hz)	— 120 - 230	— 120 - 230	— 230
	V AC/DC	12 - 24 —	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 _N (0.85...1.1)U _N	(0.9...1.1)U _N (0.85...1.1)U _N	(0.9...1.1)U _N (0.85...1.1)U _N
	DC	(0.9...1.1)U _N —	(0.9...1.1)U _N —	(0.9...1.1)U _N —
Technical data				
Electrical life at rated load in AC1 cycles	50 · 10 ³	50 · 10 ³	50 · 10 ³	
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	
Approvals (according to type)		 		

Features

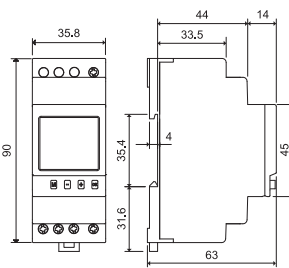
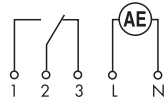
Electronic digital time switches
- weekly time setting

- **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



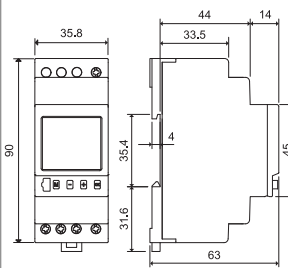
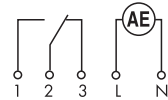
- Digital weekly time switch
- 1 CO (SPDT)
- 35 mm rail (EN 60715) mount



NEW 12.91...0090



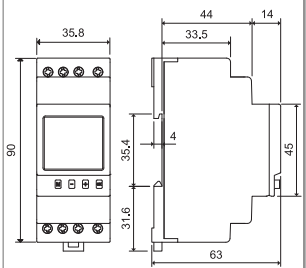
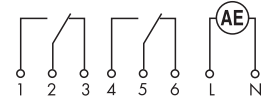
- Digital weekly time switch
- 1 CO (SPDT)
- Version for programming via PC by a special key memory
- 35 mm rail (EN 60715) mount



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 ₂	AgSnO ₂	AgSnO ₂

Supply specification

Nominal voltage (U _N)	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 _N	AC (50 Hz) (0.85...1.1)U _N	AC (50 Hz) (0.85...1.1)U _N

Technical data

Electrical life at rated load in AC1	cycles 50 · 10 ³	cycles 50 · 10 ³	cycles 50 · 10 ³
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.

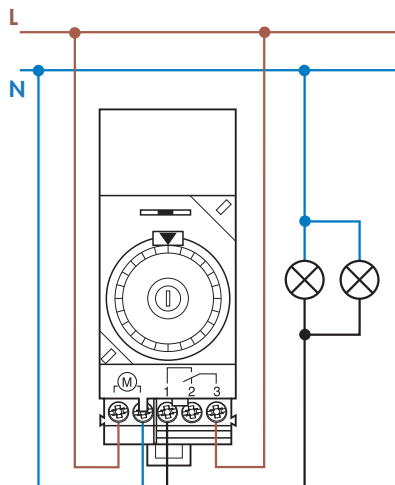
1 2 . 0 1 . 8 . 2 3 0 . 0 0 0 0

- 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

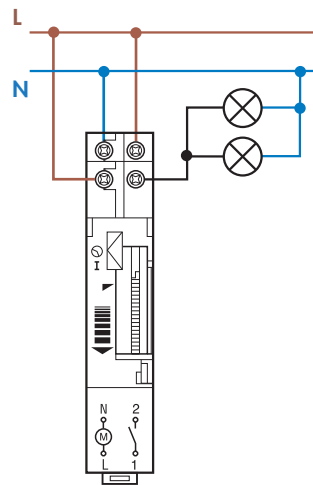
Technical data

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	stranded cable	solid cable
	mm ²	1x6 / 2x4	1x6 / 2x2.5	1x6 / 2x4
	AWG	1x10 / 2x12	1x10 / 2x14	1x10 / 2x12

Wiring diagrams

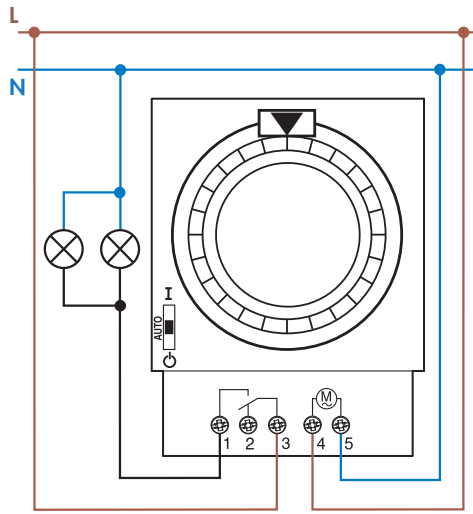


Type 12.01
 Selector switch:
 ○ = Permanently OFF
 AUTO = Automatic
 I = Permanently ON

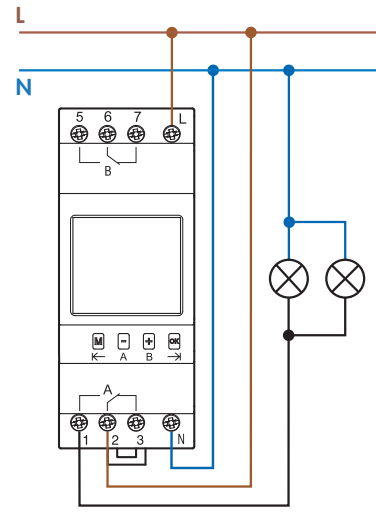


Type 12.11
 Selector switch:
 ○ = Automatic
 I = Permanently ON

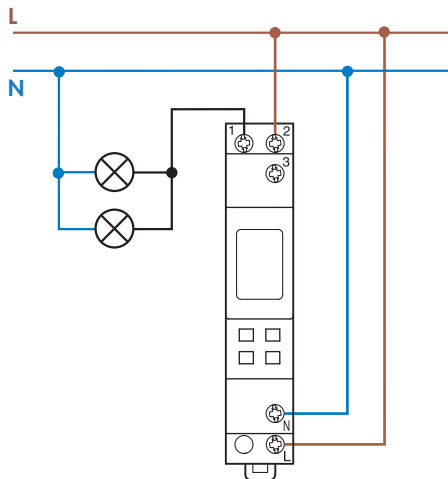
Wiring diagrams



Type 12.31



Type 12.21
12.22
12.91
12.92



Type 12.71

Accessories

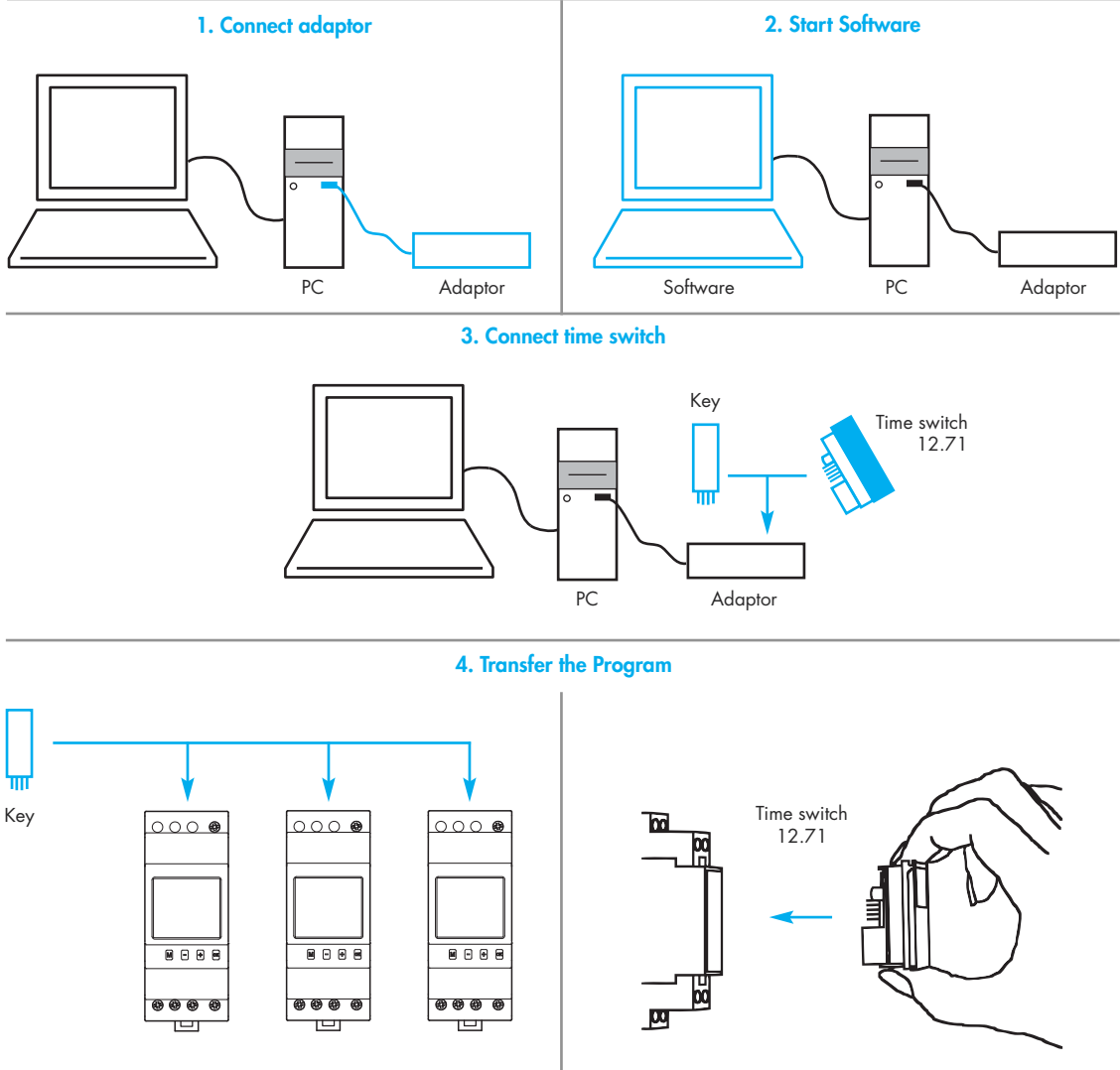


012.90

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.

