

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** - 1 Pole 16 A CO (SPDT)
- **Type 12.31-0007** - 1 Pole 16 A CO (SPDT)
- Minimum time interval setting:
1h
30 min (12.01)
15 min (12.11 - 12.31)

12.01



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

12.11

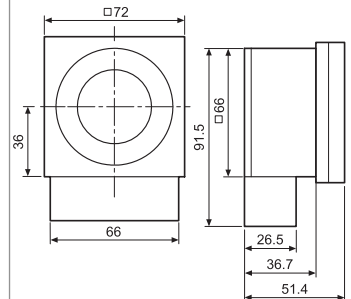
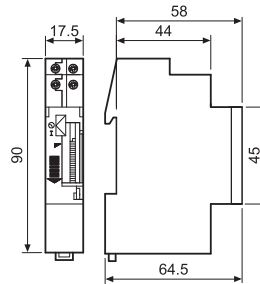
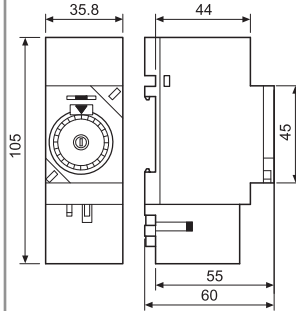
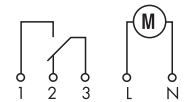
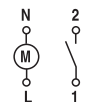
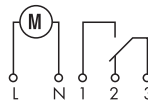


- Mechanical daily time switch
- 1 NO (SPST-NO)
- 35 mm rail (EN 60715) mount

NEW 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	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
Programs		48 switching point	96 switching point	96 switching point	168 switching point
Minimum interval setting	min	30	15	15	60
Accuracy	s/day	1.5	1.5	1.5	
Ambient temperature range	°C	-5...+55	-5...+55	-10...+50	
Protection category		IP 20	IP 20	IP 20	
Approvals (according to type)					

Features

Electronic digital time switches

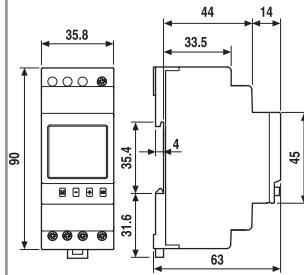
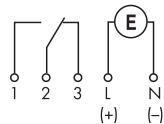
- weekly time setting

- **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) for 12.21 and 12.22
- (1...59)s for 12.71
- Automatic adjustment for daylight saving
- 35 mm rail (EN 60715) mount

12.21



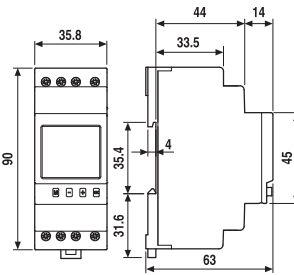
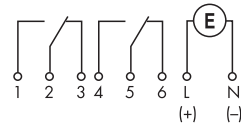
- Digital weekly time switch
- 1 CO (SPDT)
- 35 mm rail (EN 60715) mount



12.22



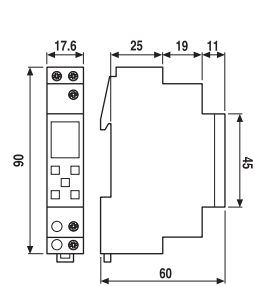
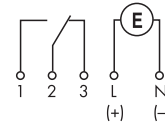
- Digital weekly time switch
- 2 CO (DPDT)
- 35 mm rail (EN 60715) mount



12.71



- 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	AgCdO

Supply specification

Nominal voltage (U _N)	V AC (50/60 Hz)		V AC/DC		
	—	230	—	230	
	12 - 24	—	24	—	
Rated power AC/DC VA (50 Hz)/W	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
	DC	(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
Programs		30	30	30
Minimum interval setting	min	1	1	1
Accuracy	s/day	1.5	1.5	1.5
Ambient temperature range	°C	-5...+55	-5...+55	-10...+55
Protection category		IP 20	IP 20	IP 20

Approvals (according to type)



Features

Electronic digital time switches

- weekly time setting

- **Type 12.91 "ZENITH"**
1 pole 16 A CO (DPDT)
35.8 mm width
- **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

NEW 12.91

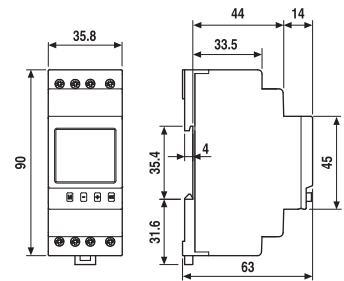
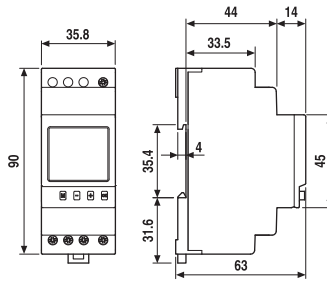
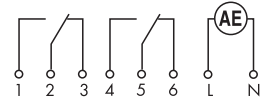
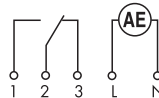


- Digital weekly time switch
- 1 CO (DPDT)
- 35 mm rail (EN 60715) mount

NEW 12.92



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



Contact specification			
Contact configuration		1 CO (DPDT)	2 CO (DPDT)
Rated current/Maximum peak current	A	16/30	16/30
Rated voltage/Maximum switching voltage V AC		250/—	250/—
Rated load AC1	VA	4,000	4,000
Rated load AC15 (230 V AC)	VA	750	750
Nominal lamp rating: incandescent (230 V)	W	2,000 (NO contact)	2,000 (NO contact)
compensated fluorescent (230 V)	W	420 (NO contact)	420 (NO contact)
uncompensated fluorescent (230 V)	W	1,000 (NO contact)	1,000 (NO contact)
halogen (230 V)	W	2,000 (NO contact)	2,000 (NO contact)
Minimum switching load	mW (V/mA)	1,000 (10/10)	1,000 (10/10)
Standard contact material		AgCdO	AgCdO
Supply specification			
Nominal voltage (U _N)	V AC (50/60 Hz)	230	230
Rated power AC/DC	VA (50 Hz)/W	2/—	2/—
Operating range	AC (50 Hz)	(0.85...1.1)U _N	(0.85...1.1)U _N
Technical data			
Electrical life at rated load in AC1	cycles	50 · 10 ³	50 · 10 ³
Type of time switch		weekly	weekly
Programs		60	60
Minimum interval setting	min	1	1
Accuracy	s/day	1.5	1.5
Ambient temperature range	°C	-10...+55	-10...+55
Protection category		IP 20	IP 20
Approvals (according to type)			

Ordering information

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

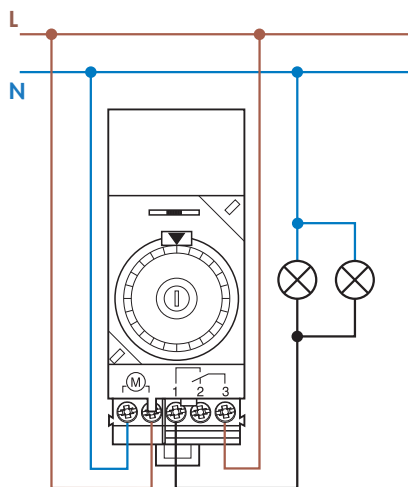
1 2 . 0 1 . 8 . 2 3 0 . 0 0 0 0

- 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, 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 = Daily only for 12.31
 - 7 = Weekly only for 12.31
- 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
 - 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)

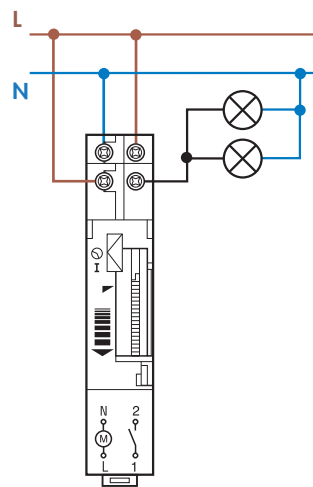
Technical data

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 after the first operation		
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	stranded cable
	mm ²	1x6 / 2x4	1x6 / 2x2.5	1x6 / 2x4 1x6 / 2x2.5
	AWG	1x10 / 2x12	1x10 / 2x14	1x10 / 2x12 1x10 / 2x14

Wiring diagrams

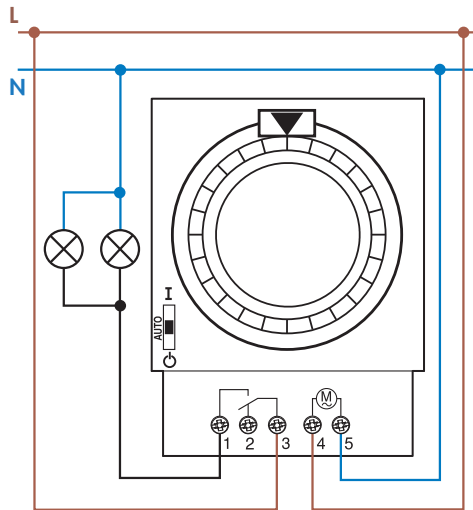


Type 12.01
 Selector switch:
 ○ = Permanently OFF
 AUTO = Automatic
 I = Permanently ON

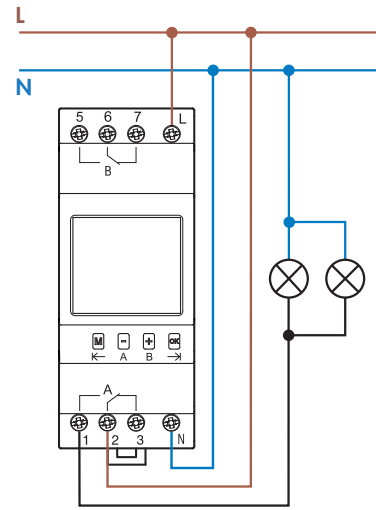


Type 12.11
 Selector switch:
 ○ = Automatic
 I = Permanently ON

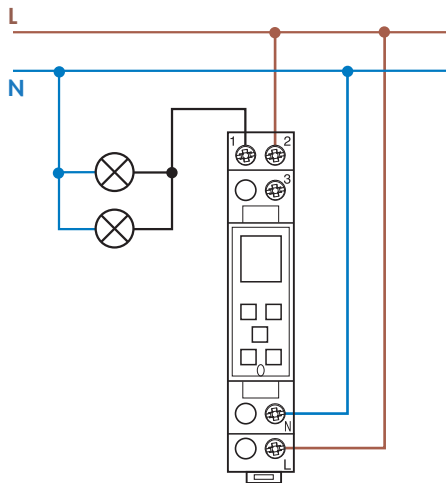
Wiring diagrams



Type 12.31



Type 12.21
12.22
12.91
12.92



Type 12.71

Accessories

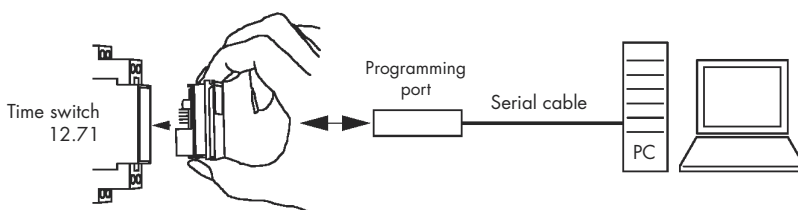
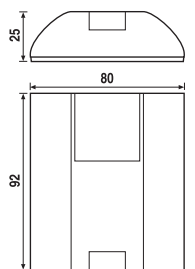


012.00

PC programming kit for type 12.71 contents:
programming port, serial cable and software

012.00

- Power supply: via PC - RS232 serial interface
- Power consumption: < 10 mA
- Ambient temperature: (-5...+35)°C
- Protection category: IP 00



INSTALLATION OF PC-SOFTWARE

- Place the CD in the CD-drive
- Installation should START
- Follow the on-screen instructions
- Choose your language and COM1...COM4 in "setting menu"