

- ▶ Functions ON/OFF IMPULS, MANUAL
- ▶ 2 or 4 co contacts / 10A
- ▶ Daily-, weekly- and yearly program
- ▶ Automatic summertime change over
- ▶ Elapsed time and pulse counter
- ▶ Unrestricted block-programming
- ▶ 300 memory locations
- ▶ Function ext. Input
- ▶ Function Cycle
- ▶ DCF77 signal control optional
- ▶ Manual override
- ▶ Data-key Save 'n carry pro (optional)
- ▶ Unlimited program security
- ▶ Security by PIN-Coding
- ▶ Supply voltage independent programming
- ▶ Width 71.5mm, Installation design



## Technical data

### 1. Functions

Automatic ON  
 Automatic OFF  
 Permanently ON/OFF  
 Function Pulse: pulse length (settable from 00:01 up to 59:59 mm:ss)  
 Cycle function / Recycler function:  
 Selection of 4 different cycles for each programming step.  
 (Pulse/Pause length (0:00:01 up to 9:59:59 h:mm:ss).  
 For use with switching times,  
 Front-key function /Channel-key function and External input  
 Function External input: as trigger for different functions (ON/OFF, cycle, permanent,timer)  
 External Input 1 = 230 V  
 External Input 2 = 0 V zero potential  
 (Activation of input no. 2 by short-circuit between contact 13 und 14)  
 DCF function: Radio-controlled clock (DCF) (Receiver not included in delivery)  
 Advance warning function for lighting applications according DIN 18015-2.  
 Twofold flashing warns of darkness.  
 Manual override  
 Elapsed time and pulse counter for each channel and elapsed counter for the device  
 Automatic summertime change over  
 Daily-, weekly and holiday programm  
 Easter function: Consideration of the yearly offset of the easter holidays  
 Unrestricted block-programming

### 2. Indicators

Illuminated LC-display  
 Display with a large dot matrix area

### 3. Time base

Crystal- or DCF77-signal control  
 Power reserve: >10 years  
 Crystal accuracy:  $\pm 1s / day$   
 Unlimited data security by EEPROM

### 4. Mechanical design

Self-extinguishing plastic housing,  
 Mounted on DIN-Rail TS 35 according to EN 50022 or wall mounting  
 Shockproof terminal connection according to VBG 4 (PZ1 required), IP rating IP20  
 Tightening torque: max. 1Nm  
 Terminal capacity:  
 1 x 1.5mm<sup>2</sup> to 10mm<sup>2</sup> without multicore cable end  
 2 x 0.8mm<sup>2</sup> to 2.5mm<sup>2</sup> without multicore cable end  
 1 x 1.0mm<sup>2</sup> to 6mm<sup>2</sup> flexible with multicore cable end  
 2 x 0.8mm<sup>2</sup> to 2.5mm<sup>2</sup> flexible with multicore cable end

### 5. Input circuit

Supply voltage: 230V AC terminals 4-5  
 Tolerance:  $\pm 10\%$   
 Rated frequency: 50 to 60Hz  
 Rated consumption: approx. 2VA

### 6. Output circuit

2 potential free change-over contacts	TSC98.20
4 potential free change-over contacts	TSC98.40
Switching capacity per channel:	2500VA ( 250V AC / 10A at $\cos\phi=1$ )
Shortest interval:	1min (resp. 1s for impulse)

### 7. Ambient conditions

Ambient temperature:	-10 to +55°C
Storage temperature:	-10 to +55°C
Transport temperature:	-10 to +55°C
Relative Humidity:	<90%

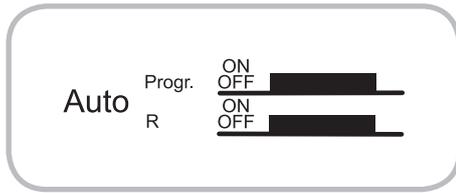
### 8. Accessories

Antennae for DCF77 signal on request.  
 It is possible to connect up to 10 TSC98 to one DCF-antennae.

## Functions

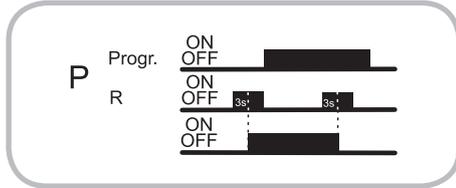
### Auto

Setting of output relays according to the programmed parameters.



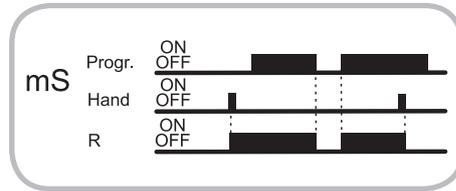
### Permanently ON/OFF

With this function it is possible to fix any output relay in ON or OFF position independent to the set program parameters



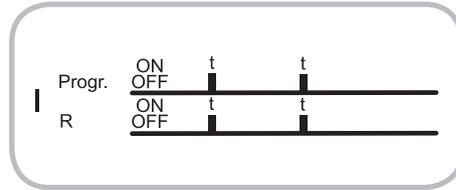
### Manual override

This function forces the output relay to switch into the position given for the next program step instantaneously (even before the interval given for the actual program step has expired). The relay remains in this position until the next inverts control signal of the program occurs



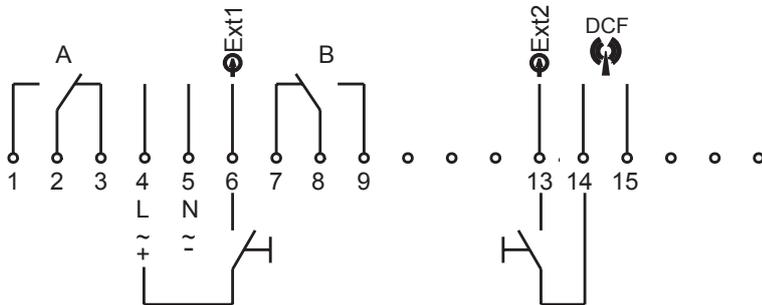
### Impulse

If an impulse is set at a given time the output relay switches into on-position for the set time period.

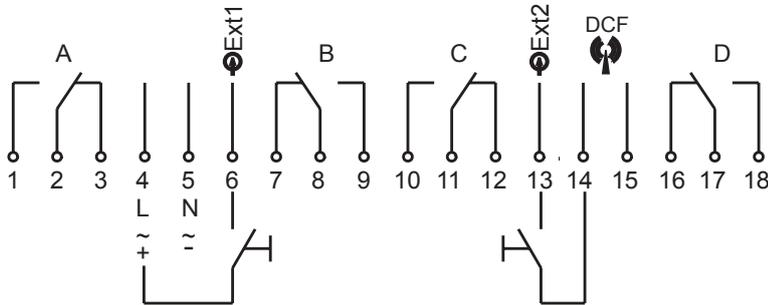


## Connections

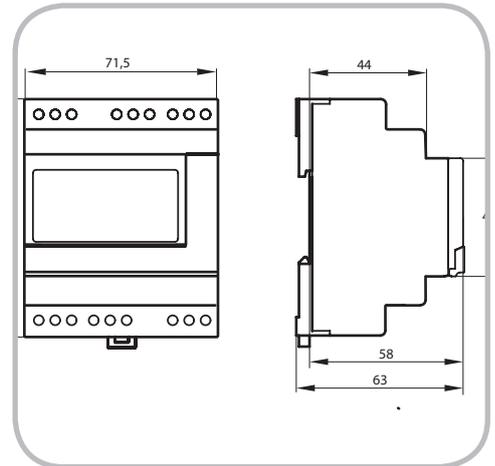
### TSC 98.20 pro



### TSC 98.40 pro



## Dimensions



Subject to alterations and errors