DESCRIPTION

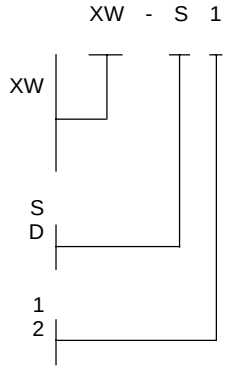
Multifunction timer with 5 functions and 4 time ranges. The function and the time range are selectable via 2 front mounted rotary switches.
Time ranges: 0.6-6sec, 6-60sec, 0.6-6min, 6-60min. The time is adjustable on the timer front.
The timer can directly be connected to the supply voltage in the range of 10.5-265V AC/DC.
Single or double relay output with LED indication of energized relay.
Intermittent flashing of LED indicating timing period (over 6 sec.).
Versions available for DIN rail or 11-pole plug-in mounting.

VERSIONS/ORDERING CODES

Type:
Release delay.
On pulse - without control switch.
On pulse - with control switch.
Off pulse.
On-off pulse.

Mounting:
11-pole plug in.
DIN rail.

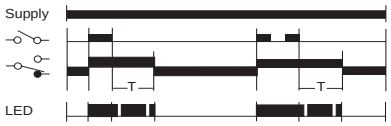
Output relay:
SPDT.
DPDT [1].



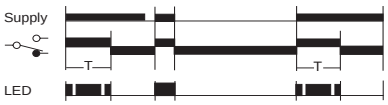
OPERATION

The function is selected via the rotary switch on the timer front. The switch may only be operated, when the supply voltage is disconnected.

Release delay.
The timer must be connected to the supply voltage permanently.
When the switch is closed, the output relay is energized. When the switch is opened again, the timing period starts.
The relay de-energizes when the preset time has elapsed.

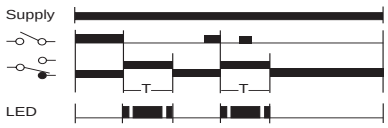


On pulse - without control switch.
A jumper must be connected between 5 and 7 (B1 and B2).
When supply voltage is connected, the relay is energized and the timing period starts. The relay de-energizes when the preset time has elapsed.

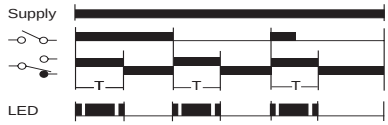


On pulse - with control switch.
The timer must be connected to the supply voltage permanently.
When the control switch is closed, the output relay is energized and the timing period starts. When the preset time has elapsed, the relay de-energizes.
To energize the relay again, the control switch must be opened and closed again, after the relay is de-energized.

Off pulse.
The timer must be connected to the supply voltage permanently.
When the control switch is opened after having been closed, the relay is energized and the timing period starts. When the preset time has elapsed, the relay de-energizes.



On-off pulse.
The timer must be connected to supply voltage permanently.
When the control switch is opened or closed, the relay is energized and the timing period starts. When the preset time has elapsed, the relay de-energizes.
During the timing period the control switch cannot change the status of the relay.



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TECHNICAL DATA

Time ranges: 0.6-6sec, 6-60sec, 0.6-6min. 6-60min.
Full linearity between the ranges is provided i.e. an adjustment made to a specific time in seconds will give the same time in minutes just by operating the range switch.

Timer accuracy:
Repeating accuracy: ± 0.5% at constant conditions.
Setting accuracy: ± 10%.
Temperature drift: Max. 0.15% per °C.

Start pulse: Min. 30msec.

Reset time: Max. 100msec.

Input current (control switch): 3-5mA (max. 0.2A peak).

Output relay: SPDT or DPDT. [1)]
Load (cosφ=1): D1/S1: Max. 8A/240V AC [4)]
Min. 10mA/24VDC
S2: Max. 5A/240V AC [4)]
Min. 100mA/24VDC
Contact material: D1/S1: AgNi 0,15
S2: AgCdO
Frequency: Max. 1000 operations per hour at max. load.
Mechanical life time: Min. 10 x 10^6 operations.
Electrical life time: Min. 100,000 operations at max. load.
Operate and release time: Max. 20msec.

Mounting:
S1/S2: 11-pole plug-in.
D1: Directly on DIN rail TS35 (EN50022).

Terminals: (D1 only) Max. conductor size 4 mm^2.
Screw type terminals with self-lifting clamps shrouded in accordance to VDE0106 (finger and back of hand protection).

Supply voltage: 10.5-265V AC/DC

Mains frequency: 40-440Hz.

Consumption: 0.5-3VA.

Cable lengths:
Supply voltage: Max. 50 m.
Control switch: Max. 50 m.

Protection:
S1/S2: IP40.
D1: IP20.

EMC: Conforming to EN 50081-1/EN 50082-2.

Isolation:
Supply to relay contacts: 2kV AC according to EN 60950 class I.

Ambient temperature: -20 to +55°C.

Housing: Black Noryl SE-1.

Weight: Typically 80 g.

NOTES/REMARKS

1) Double output relay only available in S2 versions.
2) Terminals 2 and 7 (A1 & B2) are internally connected.
3) Terminals 5 and 7 (B1 & B2) are not galvanically isolated from the supply terminals 2 and 10 (A1 & A2), the control switch must therefore be approved for the actual supply voltage.
4) When inductive or DC loads are switched the load capacity of the output relay is reduced, see the output load diagrams on fig. 1 and 2. When inductive loads are switched, it is recommended to use a RC-network, see accessories on page 130, to protect the relay contacts.

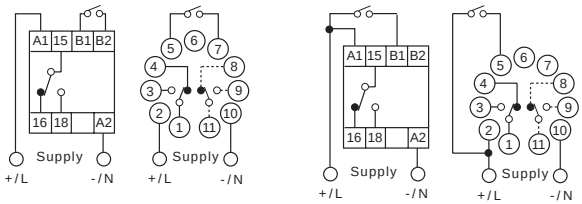
WIRING DIAGRAMS

Supply voltage above 50V.
The installation (all terminals) must be carried out according to the safety regulations! The control input and the supply input must be connected to the same circuit (phase and main switch). The output relay may only be used in circuits made according to the safety regulations.

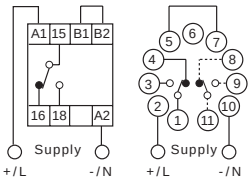
Supply voltage below 50V.
The output relay may NOT be used for voltages above 50V unless the entire supply circuit is made according to the safety regulations.

Release delay. On pulse - with control switch. Off pulse. On-Off pulse.

Alternative 1 Alternative 2

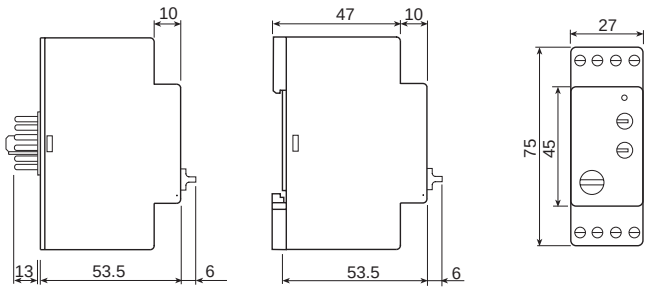


note 1-3



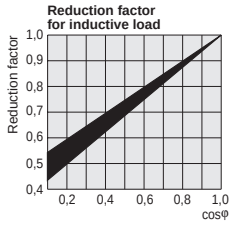
note 1-3

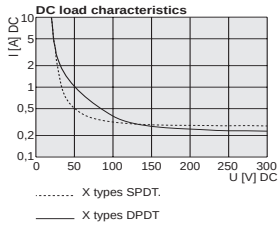
MECHANICAL DIMENSIONS



OUTPUT LOAD DIAGRAMS

Fig. 1 Fig. 2





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