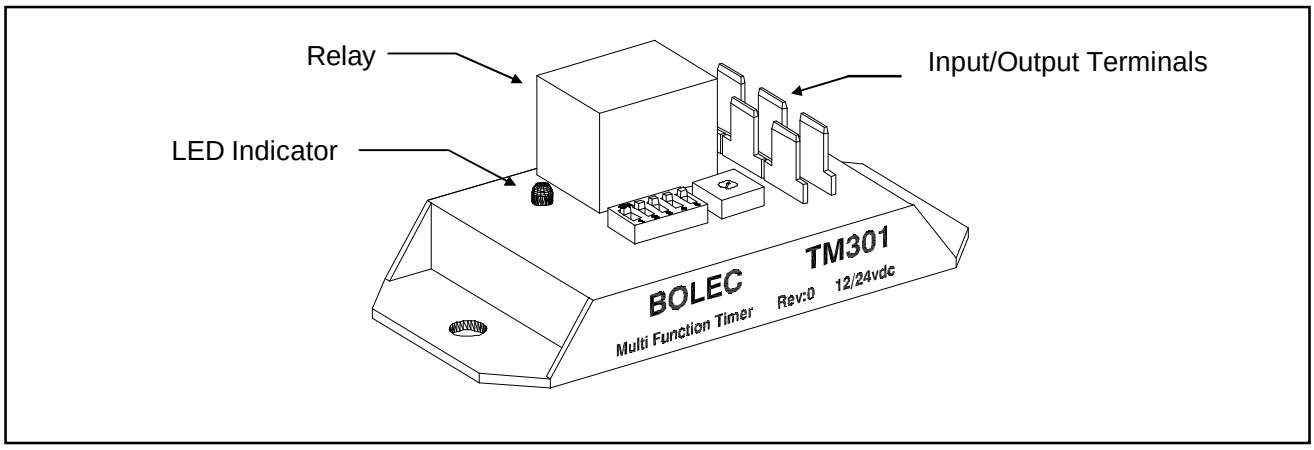
BOLEC - DCS

TIMER MODULE – TM301 – 12/24V, 0-30,0-60 SEC/MIN



GENERAL

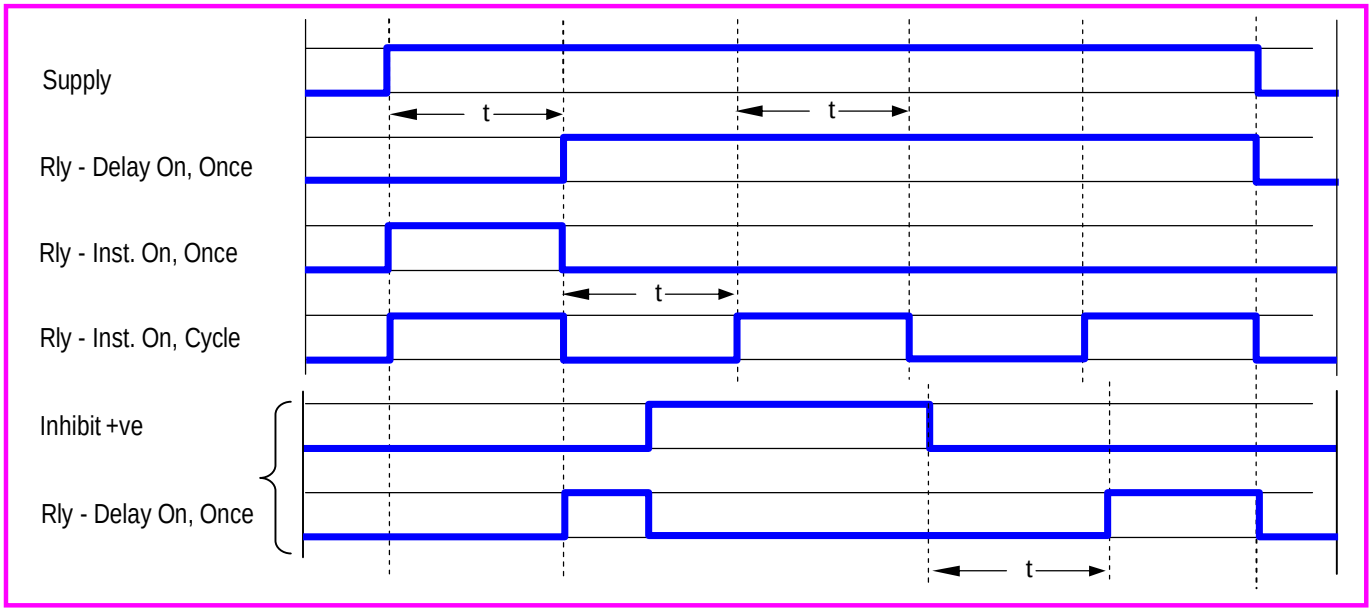
The TM301 timer is a multi function timing module designed to give normally open and normally closed volt-free contact output in 12 or 24 volt DC circuits.
Four ranges may be chosen…1-30 & 2-60 seconds or 1-30 & 2-60 minutes simply by selecting the appropriate DIP switches.
Typical applications are preheat (glow-plug) circuits in diesel engines, alarm before shutdown timers, cool down time for turbochargers, fixed time on for reversing alarms, & warm up and cool down timers on automatic start systems.
Dual range timers and other variations are also available. Contact your supplier for further information on the ranges available.

SETTING

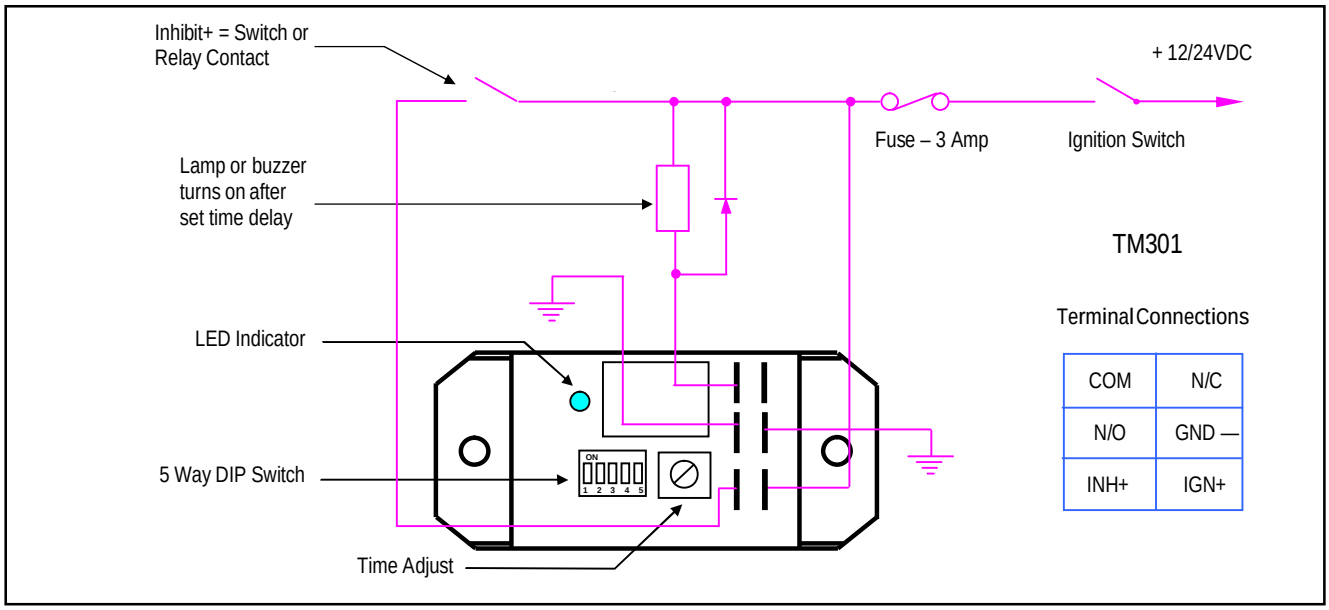
DIP Switch 1 …	**OFF**= Delay On after Power Up	**ON**= Instant On with Delay Off after Power Up
DIP Switch 2 …	**OFF**= Once Only Time Delay	**ON**= Continuous Cycle on-off-on-off…
DIP Switch 3 …	**OFF**= Seconds time range	**ON**= Minutes time range
DIP Switch 4 …	**OFF**= 1-30 time range	**ON**= 2-60 time range
DIP Switch 5 …	**OFF**= 24 VDC	**ON**= 12 VDC

- Adjust the time delay by turning the trim pot clockwise to increase the desired time and anticlockwise to decrease.
- The red LED lights when the relay is energised.

FUNCTION DIAGRAM



WIRING DIAGRAM



FITTING INSTRUCTIONS

1. Locate a convenient mounting place in the instrument panel or under the dash near the fuse panel and mount the TM301 control module. Double sided tape or Silicone are both acceptable. Orientation is not critical.
2. Connect the " + " terminal on the control module to your positive source or switch via a 5 amp fuse.
3. Connect the " – " terminal to a good earth or to a switch in an earth/ground line.
4. If required the "INH+" terminal can be used as an Inhibit Input terminal. Connecting a +ve input to this line will reset the timer and hold it reset until released.
5. Connect the relay terminals as required. Terminal connections are as follows…
   N/C = Normally Closed
   COM = Common
   N/O = Normally Open
6. Relay contacts are rated at 12 VDC 3 Amp, or 24 VDC 1.5 Amp resistive.
7. Unit is dual voltage. Do not use on 24 VDC if set to run on 12 VDC – permanent damage may result.

TIPS

1. If a time delay in the minutes range is required – set the unit for a corresponding number of seconds, then set DIP switch 3 to the minutes range.
2. When switching relay and solenoid coils with other electronic items connected it is recommended to fit reverse EMF diodes across all coils.
3. Two or more relays may be driven from this module if more than one circuit is required for switching. This will give the equivalent of double pole contacts or higher.
4. It is good wiring practice to make all circuits failsafe where possible and practical.

SPECIFICATIONS

1. Dimensions: 58 x 42 x 29mm overall.
2. Voltage: 12 VDC / 24 VDC selected via DIP Switch.
3. Time Range: 1-30, 2-60 seconds; 1-30, 2-60 minutes selectable via DIP Switch.
4. Contact Rating: 12VDC 3amp, 24VDC 1.5amp resistive.