

This note describes the SETPOINT control operation of the Smart Tuner SMT6.

Background

A set point control does what the name implies: At a point of an input signal, which can be set an output is activated. The output can have two forms:

- A) ON/OFF
Below the set point the output has one state; above the set point the output has the other state.
- B) PROPORTIONAL (PRS ONLY)
At the set point the output changes slowly (proportional) its state.

The SMT6 performs the ON/OFF control, which is suited for:

- Relay activation
- Nitrous activation
- RPM limiting
- CAM switching
- Fan and water pump control
- Warning
- Other switching applications

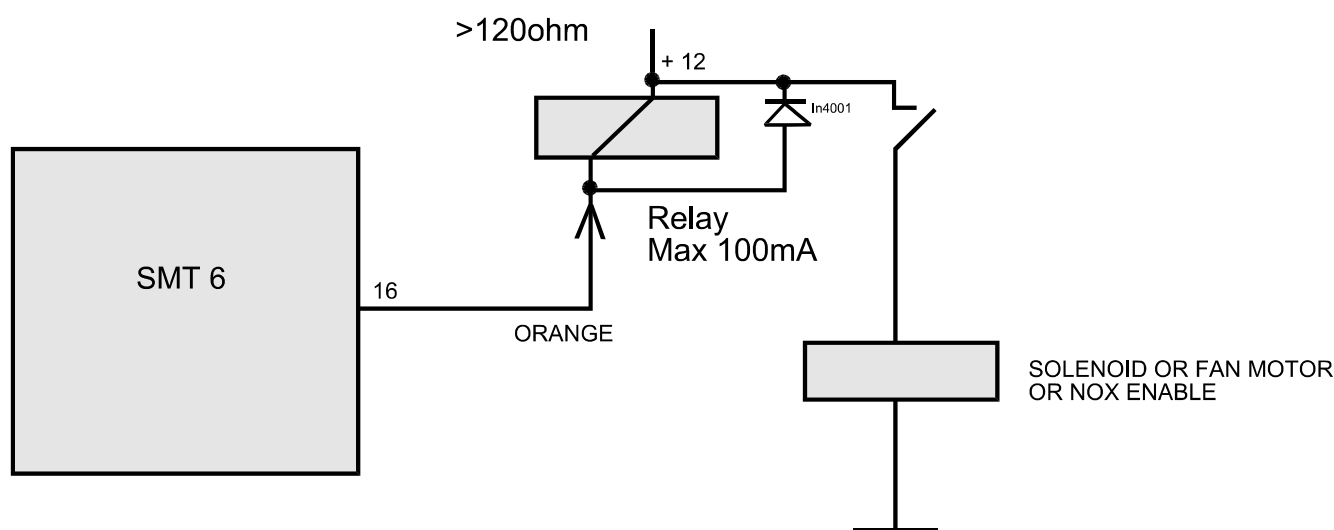
SMT6 Set points

The SMT6 has 4 set points:

RPM setp.	:	0=off, any other value active
Temperature setp.	:	255=off
AMP setp.	:	255=off
Deflection setp.	:	255=off

The 4 set points result in ONE OUTPUT : AUXOUT (orange wire).

The AUXOUT wire can handle : 0.1 Amp, max 25 volts!



Output Switching

The AUXOUT wire is switched (low, on) when ANY set point is exceeded, and is switched (high, off) when ALL input signals are BELOW the set points.

Conclusion

The AUXOUT set point activation is very popular, and I am sure that new applications are devised for it. The PRS system can perform the more sophisticated proportional set point control.