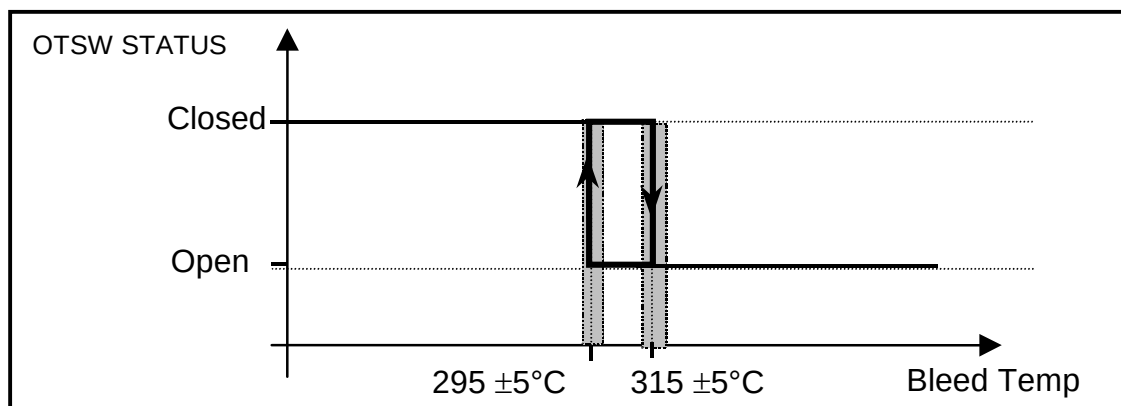


4.2.5 SYSTEM MONITORING.**4.2.5.1 BLEED SYSTEM****4.2.5.1.1 Bleed over temperature protection.**

The bleed over temperature protection is insured by the OTSW thermal switch which opens when subjected to a predetermined temperature level (ThU), and closes back when the temperature decreases below the opening temperature (ThD). The OTSW is hardware wired in serial in the command line of the SOV, so the opening of the OTSW leads to open the command line of the SOV, therefore to close it. The OTSW features an intrinsic hysteresis to avoid system cycling, as shown in figure 9.

Figure 9 : OTSW switching law.



In case of over temperature (above 315°C), the OTSW switches off the SOV solenoid power supply whatever is the command from the GASC. This leads to close the SOV.

In the mean time, the GASC detects the switch opening, and initiate a temporisation of 30 s.

If no action from the pilot, the temperature should decrease as far as the P3 port is closed. If the temperature passes below 295°C within 30 s, the OTSW closes back and the SOV solenoid is again connected to the GASC output. The SOV re-open and the system is again operating on P3 mode.

If the temperature doesn't decrease below 295°C within 30 s, the GASC:

- Post the red alarm "BLEED TEMP" signal.
- Post the amber alarm "BLEED OFF" signal.
- Memorises the status and switches off the FCSOV and SOV commands.

4.2.5.1.2 Cabin inlet temperature protection.

The cabin inlet over temperature protection is insured by the BTSW thermal switch which opens when subjected to a temperature level above 90°C , and closes back when the temperature decreases below a temperature of 70°C . The BTSW is hardware wired in serial in the command line of the FCSOV, so the opening of the BTSW leads to open the command line of the FCSOV, therefore to close it.

The BTSW features an intrinsic hysteresis to avoid system cycling, as shown in figure 10.