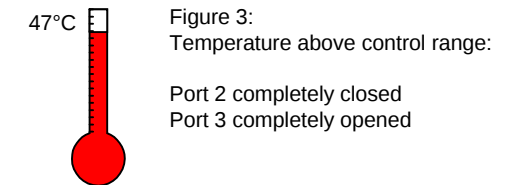
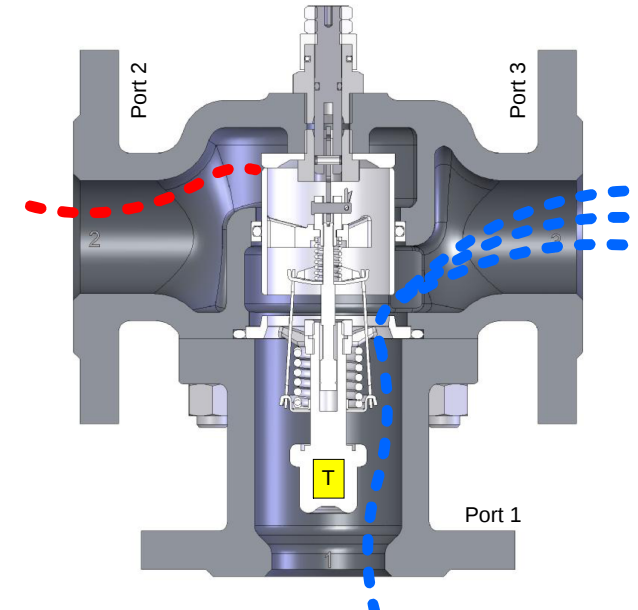
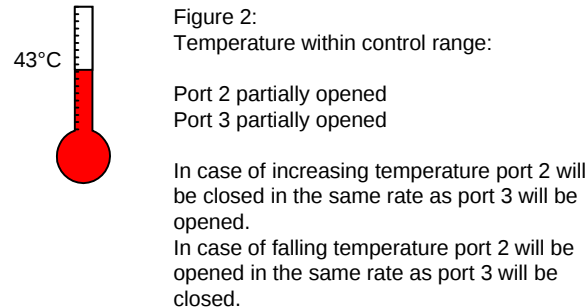
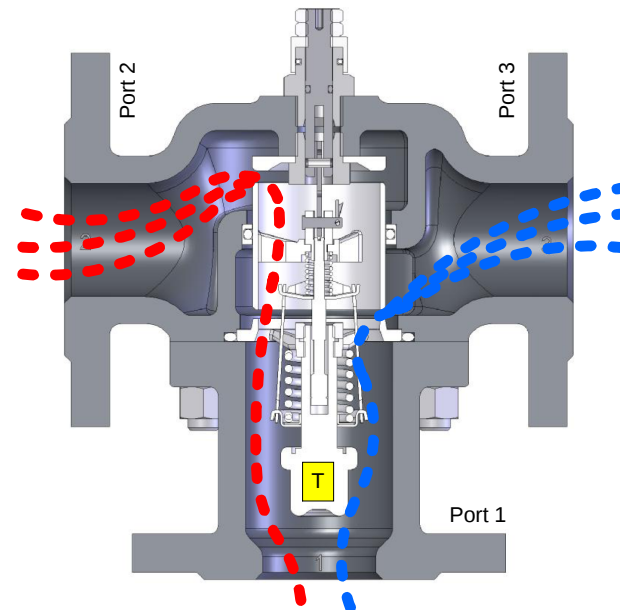
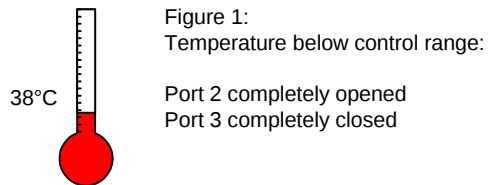
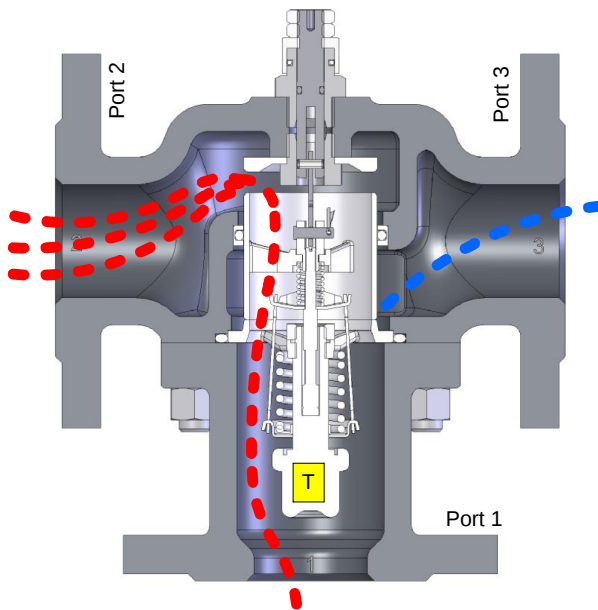


Principle of Operation Thermostatic Control Valve Model M....

Schematic 1: Manual Override none active



Important: Temperature is sensed by the element **T** inside port 1

Principle of Operation Thermostatic Control Valve Model M....

Schematic 2: Manual Override partially (~50%) and fully (100%) active

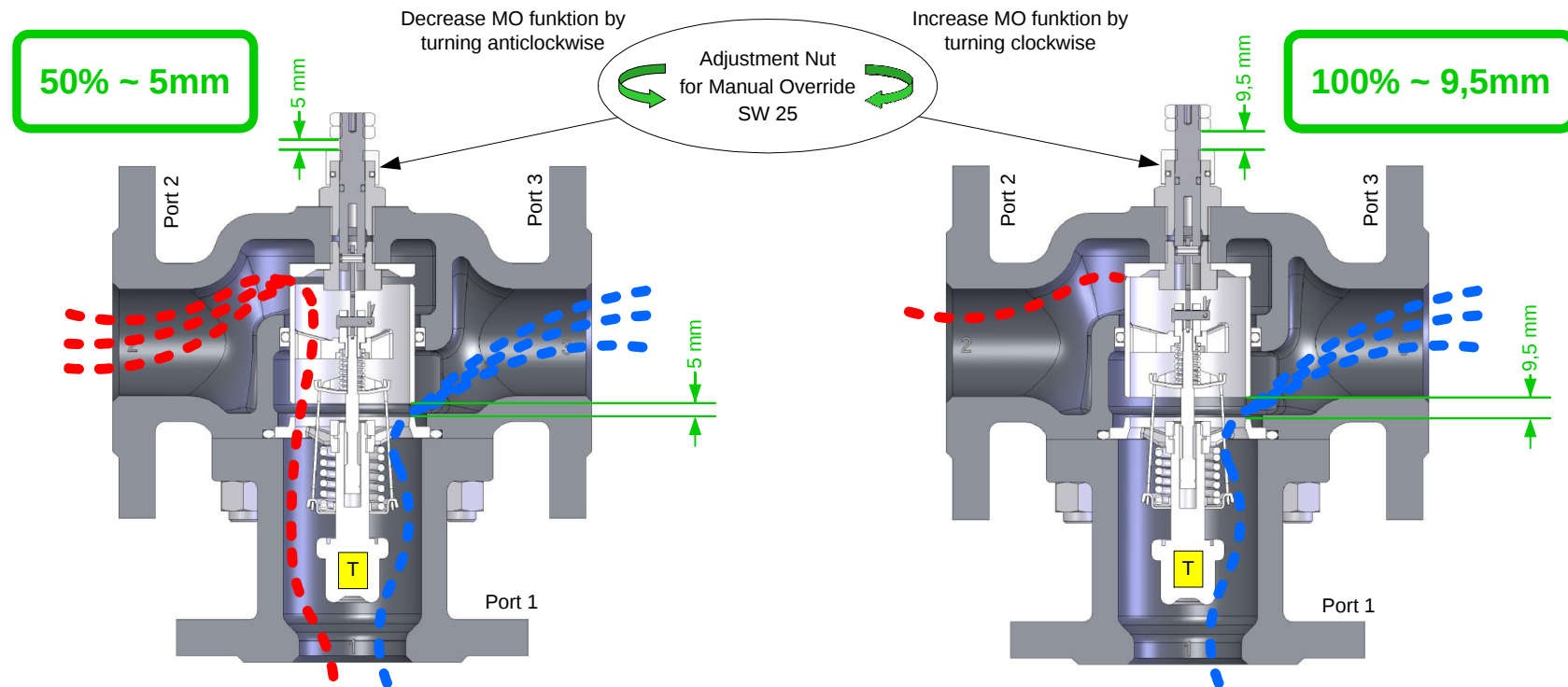


Figure 1:
Manual Override partially (~50%) active:
(i.e. the sliding bush is lifted at about 5 mm independent from temperature)

38°C

Port 3 is partially opened and Port 2 is closed in the same rate, even if temperature may be below control range.
Automatic control is limited against the lower side mechanically!

Figure 2:
Manual Override fully (100%) active:
(i.e. sliding bush is lifted at about 9,5 mm independent from temperature)

38°C

Port 3 is completely opened and Port 2 is completely closed, even if temperature may be below control range.
Automatic control is no longer feasible!

The figures show the manual override function exemplarily for TCV's of size 50 (M50T...). For TCV's with more than one element (up from size 65) one manual override is used for each element separately. TCV's up to size 40 (M20T..., M25T..., M40T...) have a smaller stroke of sliding bush (50% ~ 4 mm / 100% ~ 7,5 mm)!