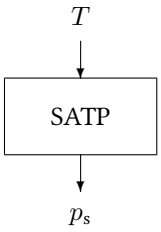
Block SATP

The SATP block returns water vapour saturation pressure as a function of temperature.

psat



Model

Name	SATP
Function	st0009
Inputs	1
Outputs	1
Parameters	0 . . . [1]
Strings	0
Group	S

Inputs

1 Temperature T / °C

Outputs

1 Water vapour saturation pressure p_s / Pa

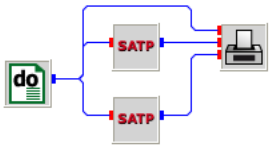
Parameters

1 Mode
- 0 Y. O. Devres
  Psychrometric properties of humid air: Calculation procedures
  in: Applied Energy 48 1994 (accuracy: ± 5 %)
- 1 W. Wagner and A. Pruss

Strings

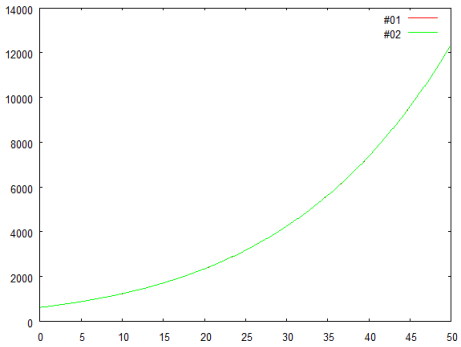
None

satp.vseit



The saturation pressure of water vapor is calculated according to approximations of Devres (upper block) and Wagner Pruss (lower block) for dew point temperatures which are varied between 0 and 50 °C by a DO block in steps of 0.1 °C.

The PLOT block shows that the difference between the two approximations is very small.



See also Block SATT.