

Table 12.10 Block Z – **Atmospheric** Information

Record	Type	Symbol	Description
1			Comment line
2.1.	Real	<i>tinit</i>	Initial time of the simulation [T].
2.2.	Logical	<i>lSurf</i>	Logical variable indicating whether the potential transpiration <i>rRoot</i> is to be divided into both potential evaporation and potential transpiration according to ratio between the actual root depth and the maximum root depth.
2.3.	Logical	<i>lchBCatm</i>	Logical variable indicating whether concentration and the top and at the bottom boundary are read at the end of each input line for 1 to number of solutes. Note: this record can be omitted, which causes <i>lchBatm</i> = .false.
3.1.	Real	<i>Time</i>	Time for which the i-th data record is provided [T].
3.2.	Real	<i>Prec</i>	Precipitation rate [$L\ T^{-1}$] (in absolute value).
3.3.	Real	<i>Evap</i>	Potential soil evaporation rate [$L\ T^{-1}$] (in absolute value). Set <i>rSoil</i> equal to zero if <i>lSurf</i> = .true. . In that case <i>rSoil</i> is calculated as a function of <i>rRoot</i> (See section 7.3).
3.4.	Real	<i>rRoot</i>	Potential transpiration rate [$L\ T^{-1}$] (in absolute value).
3.5.	Real	<i>hCritA</i>	Absolute value of minimum allowed pressure head at the soil surface
3.6.	Real	<i>rB</i>	Bottom flux [$L\ T^{-1}$] (set equal to 0 if <i>KodBot</i> is positive or one of logical variables <i>qGWL</i> or <i>FreeD</i> or <i>SeepF</i> is .true.).
3.7.	Real	<i>hB</i>	Groundwater level [L], or any other prescribed pressure head boundary condition as indicated by a positive value of <i>KodBot</i> (set equal to 0 if <i>KodBot</i> is negative or one of logical variables <i>qGWL</i> or <i>FreeD</i> or <i>SeepF</i> is .true.).
3.8.	Real	<i>hT</i>	Prescribed pressure head [L] at the surface (set equal to 0 if <i>KodBot</i> < 0).
3.9.	Real	<i>TT</i>	Soil surface temperature [$^{\circ}C$] (is not specified if <i>lTemp</i> is equal to .false.).
3.10.	Real	<i>TB</i>	Soil temperature at the bottom of the soil profile [$^{\circ}C$] (must not be specified if <i>lTemp</i> is equal to .false. , set equal to 0 if <i>kBotT</i> =0).
3.11.	Real	<i>Plantin</i>	Amount of organic fertilizer [$M\ L^{-2}$].
3.12.	Real	<i>ET0</i>	Grass potential reference evapotranspiration [$mm\ T^{-1}$]. Required only if logical variable <i>Plants</i> is .true. (Block A), records 3.3 <i>Evap</i> and 3.4 <i>rRoot</i> will be ignored in that case.
3.13.	Real	<i>T</i>	2 m air temperature [$^{\circ}C$]. Required only if logical variable <i>Plants</i> is .true. (Block A).

			Note: If logical variable <i>DailyTimestep</i> in file 'plants.in' is .true. , two columns are required: minimum and maximum air temperature (Tmin and Tmax)
3.14.	Real	<i>Rad</i>	Global radiation [$\text{J L}^{-2} \text{T}^{-1}$]. Required only if logical variable <i>Plants</i> is .true. (Block A)
3.15.	Real	<i>RelHum</i>	2 m air humidity [%]. Required only if logical variable <i>Plants</i> is .true. (Block A) and logical variable <i>Farquhar</i> (plants.in) is also .true.
3.16.	Real	<i>cTop</i>	Top boundary solute concentration [M L^{-3}] for 1 to number solutes (<i>NSolutes</i> , rec. 2.5 in selector.in), required only when logical variable <i>lChBCatm</i> (record 2.3.) exists and is .true. ; Note: For nitrogen solutes and phosphorus <i>cTop</i> =0, except for fertilization events
3.17.	Real	<i>cBot</i>	Bottom boundary solute concentration [M L^{-3}] for 1 to number solutes (<i>NSolutes</i> , rec. 2.5 in selector.in), required only when logical variable <i>lChBCatm</i> (record 2.3.) exists and is .true.

Block Z need not supplied if both logical variables *TopInF* and *BotInF* (Block A) are set equal to **.false.**.