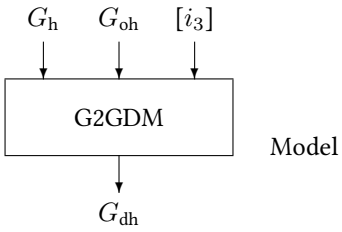
Block G2GDM

The G2GDM block returns the diffuse radiation according to various correlations for monthly data.





Model

Name	G2GDM
Function	em0011
Inputs	2 . . . [3]
Outputs	1
Parameters	1
Strings	0
Group	S

Inputs

1 Global radiation G_h / W m^{-2} on a horizontal plane
2 Global radiation outside the atmosphere G_oh / W m^{-2} on a horizontal plane
3 Model dependent (see Parameters section for further details)

Outputs

1 Diffuse radiation G_dh / W m^{-2} on a horizontal plane

Parameters

1 Correlation
- 0 Liu, Jordan
- 1 Erbs, Klein, Duffie
- 2 Vignola, McDaniels
- 3 Collares-Pereira – this correlation requires the sunrise hour angle ω_sr / ° as third block input.
- 4 Erbs, Klein, Duffie – this correlation requires the sunrise hour angle ω_sr / ° as third block input.
- 5 Vignola, McDaniels – this correlation requires the day of the year DOY as third block input.

Strings

None

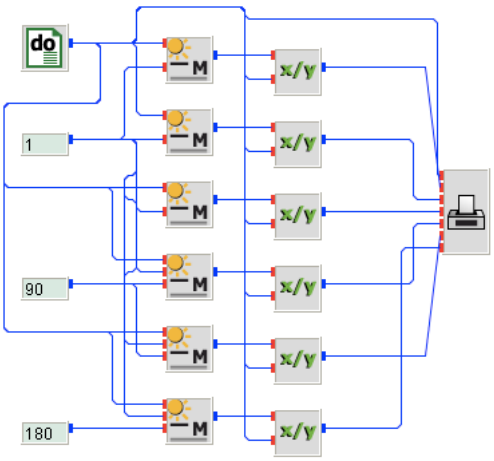
Description

The block calculates the fraction of monthly diffuse and global radiation on a horizontal surface mainly on the basis of the clearness index which is defined as

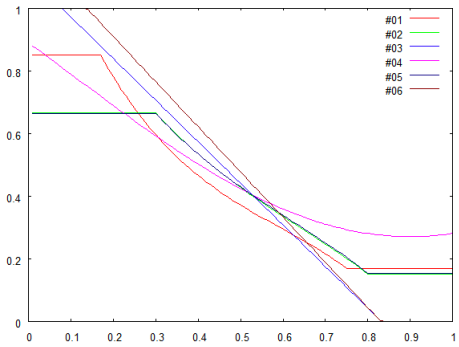
$$k_t = \frac{G_h}{G_{oh}}$$

Through the setting of the first block parameter one of several correlations can be chosen.

g2gdm.vseit



The idea of this example is exactly the same as in the example for block G2GDD only that correlations for monthly data are presented here. For further details, please refer to the example of block G2GDD.



See also Block G2GDD and G2GDH