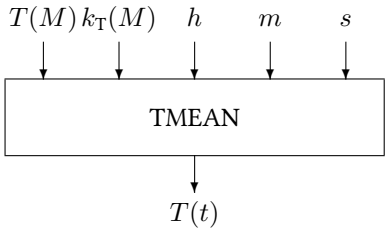
Block TMEAN

The TMEAN block returns the ambient temperature at a given real solar time for a mean monthly ambient temperature value based on the Erbs, Klein, Beckman correlation.





Name	TMEAN
Function	em0014
Inputs	3 . . . [5]
Outputs	1
Parameters	0
Strings	0
Group	S

Inputs

1	Monthly mean value $T(M)$ of ambient temperature / °C
2	Monthly mean value k_T of clearness index
3	Hour h
4	Minute m
5	Second s

Outputs

1	Mean ambient temperature $\bar{T}$ / °C

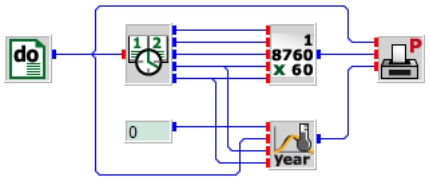
Parameters

None

Strings

None

tmean.vseit



A DO block varies the monthly mean clearness index between zero and one in steps of 0.1. This signal is used by the PLOTP block as curve parameter.

A CLOCK block is used to run through the first of January 2010 in steps of one minute. The mean ambient temperature is assumed to be zero degrees Celsius. The TMEAN block calculates the mean daily temperature profile which is displayed by a PLOTP block which uses the MOY block as x-coordinate.

