## Block AMBIENT

The AMBIENT block calculates the convective heat transfer to wall surfaces using the surface temperatures from the wall as an input and calculating heat transfer coefficients from the wind velocity. The block also calculates the longwave radiative heat transfer between the wall surface and the sky and neighbouring buildings. The outputs of the AMBIENT block are the convective and radiative heat flux to each surface temperature node.

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AMBIENT

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|---|---|
| **Name** | AMBIENT |
| **Function** | bs0005 |
| **Inputs** | 2 + nwalls |
| **Outputs** | 2*nwalls |
| **Parameters** | 0 |
| **Strings** | 0 |
| **Group** | S |

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### Inputs

1 Ambient temperature (°C)
2 Wind velocity (m/s)
3 Surface temperature tsurf wall i

### Outputs

1 Specific convective heat flux to surface node 1 ($W/m^2$)
2 Specific radiative heat flux to surface node 1 ($W/m^2$)
2i-1 Specific convective heat flux to surface node i ($W/m^2$)
. . . OUT(2*nwalls-1) Specific convective heat flux to surface node i ($W/m^2$)
2i Specific radiative heat flux to surface node i ($W/m^2$)
. . .
2*nwalls Specific radiative heat flux to surface node i ($W/m^2$)

### Parameters

None

Strings

None