

Block DHYD

The DHYD block calculates the hydraulic diameter of a rectangular channel.



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Group	C

Inputs

None

Outputs

1 Hydraulic diameter d_h / m

Parameters

- 1 Channel width a / m
- 2 Channel height b / m

Strings

None

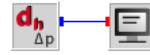
Description

The hydraulic diameter d_h is defined as the diameter of a concentric tube which has the same pressure drop per length as a channel with rectangular cross section when the velocity of the air flux is equal to the velocity in the channel with rectangular cross section. The hydraulic diameter is calculated by

$$d_h = \frac{2ab}{a + b}$$

The side ratio of the rectangle should not exceed 1:5.

dhyd.vseit



The **DHYD** block calculates the hydraulic diameter for a channel width of 0.3 m and a height of 0.2 m. The **SCREEN** block displays the result

0.240000