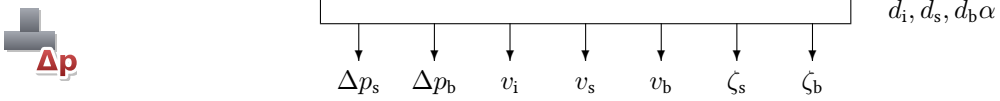
## Block DPJUNR

The DPJUNR block calculates the pressure drop of a round junction.




| | |
|---|---|
| **Name** | DPJUNR |
| **Function** | st0023 |
| **Inputs** | 3 |
| **Outputs** | 3 |
| **Parameters** | 4 |
| **Strings** | 0 |
| **Group** | S |

### Inputs

1 Inlet volume flow $\dot{V}_\mathrm{i}$ / $\mathrm{m^3\,h^{-1}}$
2 Branch volume flow $\dot{V}_\mathrm{b}$ / $\mathrm{m^3\,h^{-1}}$
3 Air temperature $T$ / °C

### Outputs

1 Pressure drop $\Delta p_\mathrm{s}$ / Pa
2 Pressure drop $\Delta p_\mathrm{b}$ / Pa
3 Flow velocity $v_\mathrm{i}$ / $\mathrm{m\,s^{-1}}$
4 Flow velocity $v_\mathrm{s}$ / $\mathrm{m\,s^{-1}}$
5 Flow velocity $v_\mathrm{b}$ / $\mathrm{m\,s^{-1}}$
6 Zeta value $\zeta_\mathrm{s}$
7 Zeta value $\zeta_\mathrm{b}$

### Parameters

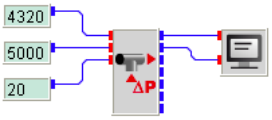
1 Inlet tube diameter $d_\mathrm{i}$ / m
2 Straight tube diameter $d_\mathrm{s}$ / m
3 Branch tube diameter $d_\mathrm{b}$ / m
4 Branch angle $\alpha$ / °

### Strings

None

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dpjunr.vseit




A round junction with inlet and straight tube diameter 0.9098 m and a branch tube diameter of 0.2764 m is simulated for an inlet volume flow of 4320 $m^3$/hand a branch volume flow of 5000 $m^3$/h of air at a temperature of 20 °C, as defined through three CONST blocks.

The resulting pressure drops in Pascal are displayed by a SCREEN block.

```
98.187    261.715
```