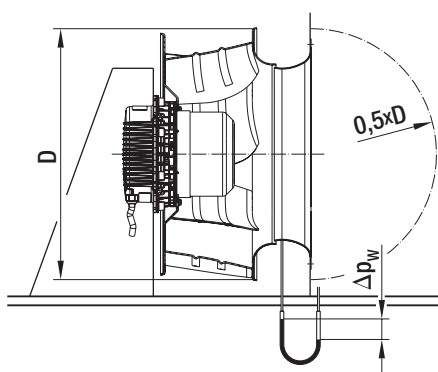




Air flow measurement:

The differential pressure approach compares the static pressure before the inlet nozzle with the static pressure inside the inlet nozzle.

Air flow can be calculated on the basis of the differential pressure (difference in pressure of the static pressures) in keeping with the following equation:

$$\dot{V} = k \cdot \sqrt{\Delta p_w} \quad \dot{V} \text{ in [m}^3/\text{h]} \text{ and } \Delta p_w \text{ in [Pa]}$$

If constant air flow control is used, then the nozzle pressure has to be kept constant:

$$\Delta p_w = \dot{V}^2 : k^2$$

$$\Delta p_w = \dot{V}^2 : k^2$$

k takes into account the specific nozzle characteristics.

1 or 4 pressure measuring points are spaced along the circumference of the inlet nozzle. Connection on the customer side is accomplished via a premounted T tube connector. This tube connector is suited for pneumatic hoses with an internal diameter of 4 mm.

Inlet nozzles with measuring device to determine air flow for backward curved centrifugal fans

Part no. with 1 nozzle	Part no. with 4 nozzles (Piezometer ring)	Size	k-value	For additional information, refer to p. 550
—	96400-2-4013	250	68	96359-2-4013
—	96410-2-4013	280	80	96360-2-4013
31100-2-4013	31080-2-4013	310	120	31050-2-4013
31110-2-4013	31090-2-4013	310	103	31051-2-4013
35600-2-4013	35580-2-4013	355	155	35560-2-4013
35610-2-4013	35590-2-4013	355	138	35561-2-4013
54515-2-4013	54500-2-4013	400	183	54476-2-4013
54514-2-4013	54510-2-4013	450	217	54478-2-4013
64015-2-4013	64005-2-4013	450	214	63045-2-4013
54518-2-4013	54516-2-4013	500	265	54480-2-4013
64025-2-4013	64002-2-4013	500	283	63072-2-4013
64030-2-4013	64001-2-4013	560	350	63071-2-4013
64040-2-4013	64000-2-4013	630	480	63070-2-4013

subject to alterations