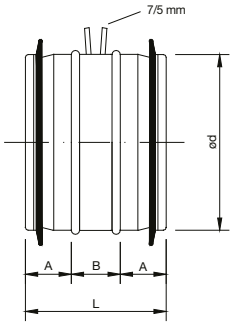
MR – measuring circle



Type	Ø d [mm]	A [mm]	B [mm]	L [mm]	weight [kg]
MR 100	99	35	58	128	0,22
MR 125	124	35	58	128	0,27
MR 160	159	35	58	128	0,35
MR 200	199	35	58	128	0,45
MR 250	249	40	48	128	0,57
MR 315	313	40	48	128	0,73
MR 400	398	60	62	180	1,58
MR 500	498	60	62	140	1,99
MR 630	628	60	62	165	4,50
MR 800	798	100	70	165	5,60
MR 1000	998	100	70	165	6,60
MR 1250	1248	100	70	165	8,60

Technical parameters

MR – measuring circle
is designed for fast and accurate air flow measurements for circular ducts.
- it works independently of the air flow direction
- rigid construction
- easy cleaning of the duct in the version with inspection door

Construction
The housing of the MR measuring ring is made of galvanized steel plate, the measuring ring and the taps for the manometer connection are made of aluminium. Sizes 100 ... 400 are supplied with a single-edge seal.

Installation
The MR measuring ring is connected to the pipe by rivets or self-tapping screws. For more information on the recommended location in the piping system, see the following page.

Air flow measurement
The MR is provided with outlets for connecting a pressure differential gauge (pm), which can be used directly to calculate air flow values using the values of the constant k and the correction factor X (see tables). The diagrams given here in the catalogue are used to select the appropriate size when considering the pressure drop p_t.

Example of order execution

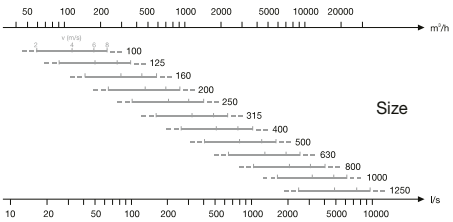
MR	200	P	xxx

Product
Size
Extended tapping for connecting a pressure gauge
Length of extension taps

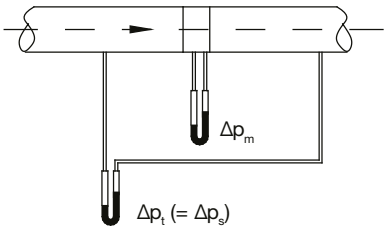
TDP-D differential pressure transmitter that can be used for air flow measurement

Additional illustration

Scope of use



Air flow q_v



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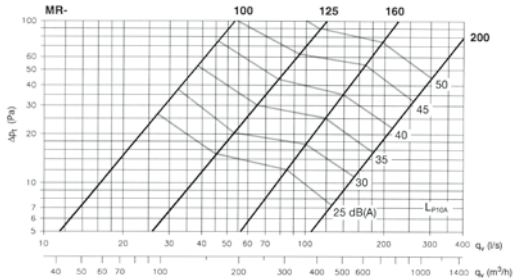
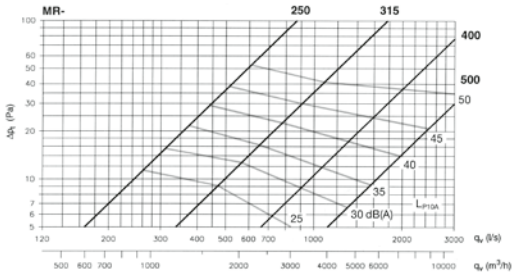
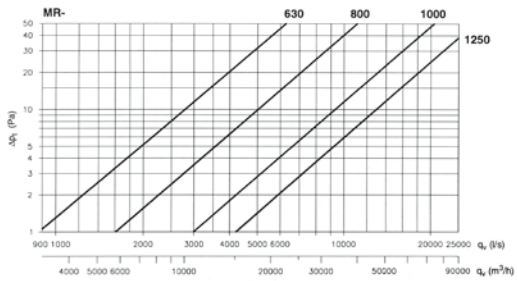
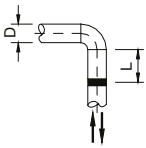
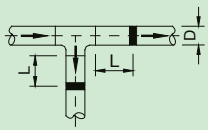
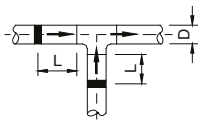
Characteristics







Typical example of location	Recommended safe distance L		Correction factor X
	m_2 = ± 7 %	m_2 = ± 10 %	
	≥ 1D	≥ 1D	0.95 (L = 0 … 8 D)
	≥ 4D	≥ 2D	0.92 (L = 2 … 8 D)
	≥ 2D	≥ 2D	1.00

$q_v = k\sqrt{\Delta p_m}$ (l/s)

$\Delta p_m = (q_v/k)^2$

MR	100	125	160	200	250	315	400	500	630	800	1000	1250
value k	4.0	7.4	13.6	23.4	40	66	114	180	294	481	764	1330

The exact actual air flow according to distance L is obtained by multiplying the measured air volume by the correction factor X, the value of which is given in the table above.

Calibration accuracy in undisturbed laminar airflow is ± 5 %.