

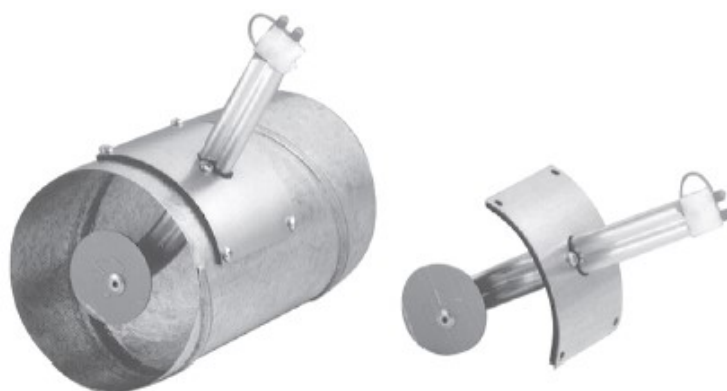
Lindab FMI Insert Flow Gauge Instruction Manual

[Home](#) » [Lindab](#) » Lindab FMI Insert Flow Gauge Instruction Manual 

Contents

- 1 [Lindab FMI Insert Flow Gauge Instruction Manual](#)
- 2 [Description](#)
- 3 [Order code](#)
- 4 [Dimension](#)
- 5 [Technical data](#)
- 6 [Materials and finish](#)
- 7 [Technical data](#)
- 8 [Insert flow gauge](#)
 - 8.1 [Technical data Pressure loss – Sound effect](#)
- 9 [Measurement accuracy](#)
- 10 [Read More About This Manual & Download PDF:](#)
- 11 [Documents / Resources](#)
- 12 [Related Posts](#)

Lindab FMI Insert Flow Gauge Instruction Manual



Description

Insert flow gauge FMI is a calibrated orifice plate that can be installed in circular ducts where it is necessary to measure the volume flow. The pressure over the gauge is taken from the two nipples, and the volume flow is determined using the diagram or the accompanying curve constants.

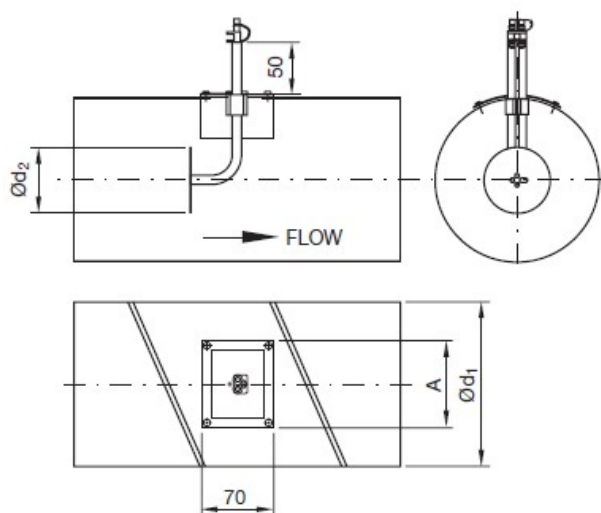
FMI can be installed after duct installation and also in exist- ing systems.

Order code

Product	FMI	aaa
Type	FMI	
Dimension $\varnothing d_1$	80 - 630	

Example: FMI - 250

Dimension



Ød1 mm	Ød2 mm	A mm
80	35	90
100	43	90
125	53	90
160	63	90
200	83	145
250	103	145
315	116	145
400	151	180
500	191	265
630	241	265

Technical data

The Volumeflow (q) can be calculated from the following formulas:

$$q = k_1 \sqrt{\Delta p} \text{ [m}^3\text{/h]} \quad q = k_2 \sqrt{\Delta p} \text{ [l/s]}$$

Ød ₁ [mm]	K ₁ [m ³ /h]	K ₂ [l/s]
80	11.4	3.18
80	11,4	3,18
101000	18.178,7	55.,2200
121525	29.279,7	8.25
160	51.1	14.20
200	80.3	22.30
250	124.0	34.50
315	211.0	58.50
400	346.0	96.00
500	544.0	151.00
630	875.0	243.00

Materials and finish

Materials: Galvanised steel and aluminium

Other colours are available. Please contact Lindab's sale department for further information.

Technical data

Pressure loss – Sound effect

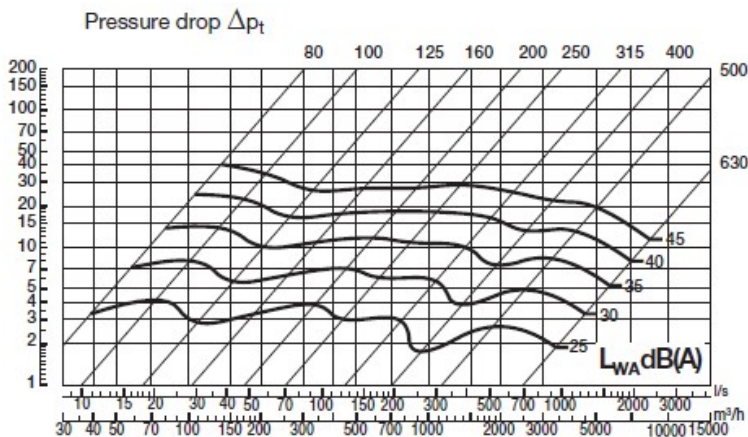
The diagram shows the current pressure loss as a function of the volume flow and A-weighted sound effect level LWA dB(A) at duct. Frequencyrelated sound effect at duct is shown in the table below.

Insert flow gauge

Technical data

Pressure loss – Sound effect

The diagram shows the current pressure loss as a function of the volume flow and A-weighted sound effect level LWA dB(A) at duct. Frequencyrelated sound effect at duct is shown in the table below.



Measurement accuracy

The length of the straight section of ducting required as a minimum to limit the method error to 5% or 10% respectively is shown in the chart, (d1 is nom. duct dimension).

*) “Tee-Piece” here means a circular joint consisting of a Tee- piece or an attachment.

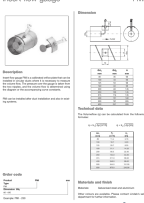
	Velocity app. 5 m/s		Velocity app. 7,5 m/s		Velocity app. 10 m/s	
dim	Centre frequency [Hz]		Centre frequency [Hz]		Centre frequency [Hz]	
Ød 1	125 250 500 1K 2K 4K	8K	125 250 500 1K 2K 4K	8K	125 250 500 1K 2K 4K	8K
	Flow 90 m3/h (25 l/s)		Flow 135 m3/h (37,5 l/s)		Flow 180 m3/h (50 l/s)	

80	45 8	42 13	37	28	1	12	53 7	48 21	44	37	2	19	59 6	53 31	50	44	3	27
	Flow 140 m3/h (39 l/s)						Flow 210 m3/h (58 l/s)						Flow 280 m3/h (78 l/s)					
100	43 9	40 14	35	27	1	9	53 8	48 23	44	36	2	18	62 7	55 33	51	44	3	30
	Flow 220 m3/h (61 l/s)						Flow 330 m3/h (92 l/s)						Flow 440 m3/h (122 l/s)					
125	47 0	41 15	34	27	2	13	55 0	50 26	44	36	3	21	62 1	57 38	52	45	4	31
	Flow 360 m3/h (100 l/s)						Flow 540 m3/h (150 l/s)						Flow 720 m3/h (200 l/s)					
160	46 1	39 16	33	27	2	13	55 1	48 26	42	36	3	21	62 0	56 37	51	44	4	30
	Flow 540 m3/h (150 l/s)						Flow 810 m3/h (225 l/s)						Flow 1080 m3/h (300 l/s)					
200	42 8	36 20	31	24	1	12	49 9	46 29	41	34	2	23	55 0	55 37	49	44	4	35
	Flow 880 m3/h (244 l/s)						Flow 1320 m3/h (367 l/s)						Flow 1760 m3/h (488 l/s)					
250	47 4	38 22	31	28	2	18	51 4	46 32	40	37	3	29	57 3	52 42	47	45	4	42

	Flow 1400 m3/h (389 l/s)						Flow 2100 m3/h (583 l/s)						Flow 2800 m3/h (778 l/s)					
315	42 4	35 22	31	28	2	15	50 3	43 32	39	37	3	26	55 2	50 42	46	45	4	39
	Flow 2200 m3/h (610 l/s)						Flow 3300 m3/h (920 l/s)						Flow 4400 m3/h (1220 l/s)					
400	45 0	41 26	34	33	3	16	54 9	48 36	43	41	3	28	61 6	53 45	50	48	4	42
	Flow 3500 m3/h (792 l/s)						Flow 5200 m3/h (1444 l/s)						Flow 7000 m3/h (1944 l/s)					
500	38 8	34 25	31	30	2	17	48 8	44 35	41	40	3	27	58 8	54 45	51	50	4	37
	Flow 5600 m3/h (1556 l/s)						Flow 8400 m3/h (2333 l/s)						Flow 11200 m3/h (3111 l/s)					
630	38 8	33 26	31	31	2	22	48 8	43 36	41	41	3	32	58 8	53 46	51	51	4	42

Read More About This Manual & Download PDF:

Documents / Resources

	Lindab FMI Insert Flow Gauge [pdf] Instruction Manual FMI Insert Flow Gauge, FMI, Insert Flow Gauge
---	--