

Air-Gas Flowmeter
AO

ATTENTION !

☞ **Never blow into the indicator**

☞ **Start always with highest range (0-
10 m/s) of measurement to avoid
damage**

Paul Gothe GmbH
since 1924
Germany



Description:

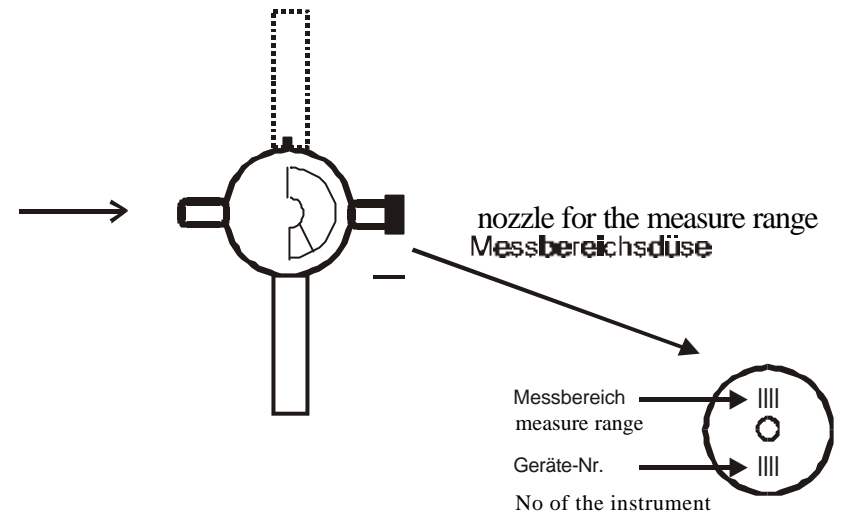
The flowmeter is a winged recorder for measurement in air or in no corrosive gases.

If the gas temperature higher than 70°C (up to 130° C) use the flowmeter only up to 10 sec. to avoid overheating. The calibration was made with air (density: 1.2 kg/m³). Correction to operation state can be calculated by using table 6128a. Each Calibration must do with the complete equipment, that means with all necessary hoses and tubes.

For each range of measurement is enclosed a characteristic orifice. They must be placed in the exit slit.

Maintenance:

- The indicator and the orifice should protect against contaminants (dust, water, oil).
- Use the flowmeter in gases with high humidity only a short time.
- If it not easy to take off the nozzle, rub the port with talcum.
- Clean the orifice with a *soft* wood chip. If suppose, that the value of the flowmeter is to low, then should the nozzle be cleaned carefully with a *soft* wood-chip.



Faktor für Dichte 0,3 bis 1,79 kg/m³
factor for the density 0,3 to 1,79 kg/m³

Dichte density	Korr. + % corr + %	Dichte density	Korr. + % corr + %	Dichte density	Korr. + % corr + %
0,30	100,00	0,80	22,40	1,30	-3,80
0,31	97,00	0,81	21,60	1,31	-4,20
0,32	94,00	0,82	20,80	1,32	-4,50
0,33	91,00	0,83	20,00	1,33	-4,80
0,34	88,00	0,84	19,40	1,34	-5,20
0,35	85,50	0,85	18,70	1,35	-5,50
0,36	83,00	0,86	18,00	1,36	-5,90
0,37	80,50	0,87	17,40	1,37	-6,30
0,38	78,00	0,88	16,70	1,38	-6,60
0,39	75,50	0,89	16,10	1,39	-6,90
0,40	73,00	0,90	15,50	1,40	-7,30
0,41	71,00	0,91	14,80	1,41	-7,60
0,42	69,00	0,92	14,20	1,42	-7,90
0,43	67,00	0,93	13,60	1,43	-8,30
0,44	65,00	0,94	13,00	1,44	-8,60
0,45	63,50	0,95	12,40	1,45	-8,90
0,46	61,50	0,96	11,80	1,46	-9,30
0,47	60,00	0,97	11,20	1,47	-9,60
0,48	58,00	0,98	10,70	1,48	-9,90
0,49	56,50	0,99	10,20	1,49	-10,20
0,50	55,00	1,00	9,70	1,50	-10,50
0,51	53,50	1,01	9,10	1,51	-10,80
0,52	52,00	1,02	8,50	1,52	-11,10
0,53	50,50	1,03	8,00	1,53	-11,40
0,54	49,00	1,04	7,50	1,54	-11,70
0,55	47,50	1,05	7,00	1,55	-12,00
0,56	46,50	1,06	6,50	1,56	-12,30
0,57	45,00	1,07	6,00	1,57	-12,60
0,58	43,50	1,08	5,50	1,58	-12,90
0,59	42,50	1,09	5,00	1,59	-13,20
0,60	41,50	1,10	4,50	1,60	-13,50
0,61	40,00	1,11	4,00	1,61	-13,70
0,62	39,00	1,12	3,60	1,62	-13,90
0,63	38,00	1,13	3,20	1,63	-14,20
0,64	37,00	1,14	2,70	1,64	-14,50
0,65	36,00	1,15	2,20	1,65	-14,70
0,66	35,00	1,16	1,70	1,66	-14,90
0,67	34,00	1,17	1,30	1,67	-15,20
0,68	33,00	1,18	0,90	1,68	-15,50
0,69	32,00	1,19	0,50	1,69	-15,70
0,70	31,00	1,20	0,00	1,70	-16,00
0,71	30,00	1,21	-0,40	1,71	-16,30
0,72	29,00	1,22	-0,80	1,72	-16,50
0,73	28,00	1,23	-1,20	1,73	-16,70
0,74	27,30	1,24	-1,60	1,74	-17,00
0,75	26,50	1,25	-2,00	1,75	-17,20
0,76	25,70	1,26	-2,40	1,76	-17,40
0,77	24,80	1,27	-2,80	1,77	-17,70
0,78	23,90	1,28	-3,10	1,78	-17,90
0,79	23,20	1,29	-3,40	1,79	-18,10

Rechenbeispiel

Gemessen:

5,2 m/s bei einer Dichte von 0,54 kg/m³

Korrektur: + 49 %

Ergebnis:

 $5,2 + 49 \% = 5,2 + 2,548 = 7,748 = 7,7 \text{ m/s}$ **Example:**

measurement:

5,2 m/s at density 0,54 kg/m³

correction: + 49 %

result:

 $5,2 + 49 \% = 5,2 + 2,548 = 7,748 = 7,7 \text{ m/s}$

Faktor für Temperaturkorrektur (Druck: 1013 mbar)
factor for the temperature correction (p: 1013 mbar)

STRL

T °C temp	Korr. + % corr + %
140	18,70
136	18,00
131	17,40
126	16,70
122	16,10
118	15,50
113	14,80
109	14,20
105	13,60
101	13,00
97	12,40
93	11,80
90	11,20
86	10,70
82	10,20
79	9,70
75	9,10
72	8,50
69	8,00
65	7,50
62	7,00
59	6,50
56	6,00
53	5,50
50	5,00
47	4,50
44	4,00
41	3,60
38	3,20
36	2,70
33	2,20
31	1,70
28	1,30
25	0,90
23	0,50
20	0,00
18	-0,40
16	-0,80
13	-1,20
11	-1,60
9	-2,00
7	-2,40
4	-2,80
2	-3,10
0	-3,40
-2	-3,80
-4	-4,20
-6	-4,50
-8	-4,80
-10	-5,20

Rechenbeispiel

Gemessen:

5,2 m/s bei einer Temperatur von 49°C

Korrektur: + 4,5 %

Ergebnis:

 $5,2 + 4,5 \% = 5,2 + 0,23 = 5,4 \text{ m/s}$ **Example:**

measurement:

5,2 m/s at a temperature of 49°C

correction: + 4,5 %

result:

 $5,2 + 4,5 \% = 5,2 + 0,23 = 5,4 \text{ m/s}$