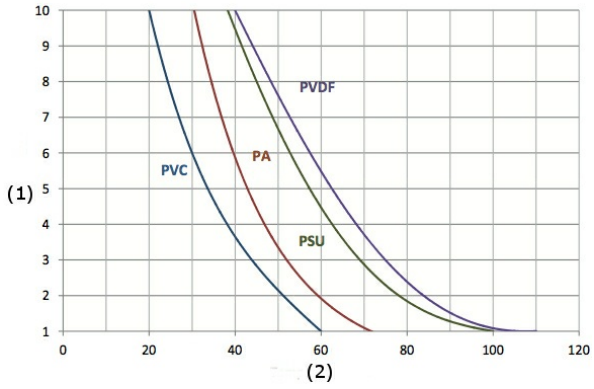
Partnership. With Guarantee.

Flow meter for air
Series FM06, FM07, FM12



Design type	Flow meter, variable area measuring principle, air scale
Connection	G3/8"...G2"
Materials	Float PVDF, malleable cast iron GJMW thread, EPDM seals FM06 Measuring tube PSU FM07/FM12 Measuring tube PA
Application range	gaseous media without solid particles that do not attack the materials used
Medium temperature	+5...+75°C
Ambient temperature	+5...+75°C
max. operating pressure	10bar, see pressure-temperature diagram
Accuracy	see table measuring accuracy
Mounting type	Installation in rigid piping system
Mounting position	upright, flow from bottom to top
Special version	Thread PVC, PP or Stainless steel 1.4571, Seals FKM, Float with encapsulated magnets, Scale for other gases
Accessories	Limit switch SG-BI-S and SG-BI-O, Measured value sensor

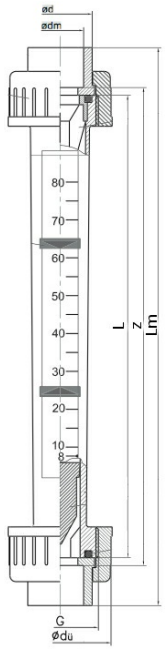
Pressure-temperature diagram

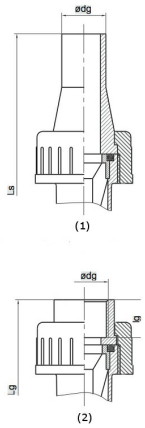


(1)...Pressure [bar], (2)...Temperature [°C]

+43 512 52076
austria@stasto.eu
© STASTO Automation KG

Dimensions FM06





(1)...Fitting with welding nipple, (2)...Fitting with threaded sleeve

Connection G	Scale/Measuring range [Nm³/h] 0bar/20°C	DN	dü	L	Threaded socket			Weight [approx. g]	Type
					dg	Lg	lg		
G3/4"	0,1...0,55	10	35	165	G3/8"	199	11	120	FM06-38-M-0,55
G3/4"	0,2...0,95	10	35	165	G3/8"	199	11	120	FM06-38-M-0,95
G3/4"	0,5...1,9	10	35	165	G3/8"	199	11	120	FM06-38-M-1,9
G3/4"	0,8...3	10	35	165	G3/8"	199	11	120	FM06-38-M-3
G1"	0,6...2,8	15	43	185	G1/2"	223	13	520	FM06-12-M-2,8
G1"	1,4...5,6	15	43	185	G1/2"	223	13	520	FM06-12-M-5,6
G1"	1,5...7	15	43	185	G1/2"	223	13	520	FM06-12-M-7
G11/2"	1...6,5	25	60	200	G1"	250	17	630	FM06-10-M-6,5
G11/2"	1,5...11	25	60	200	G1"	250	17	630	FM06-10-M-11
G11/2"	3...18	25	60	200	G1"	250	17	630	FM06-10-M-18
G11/2"	6...30	25	60	200	G1"	250	17	630	FM06-10-M-30

Special versions - Connections

Connection G	DN	dü	L	Adhesive socket PVC			Welding socket PP			Weld-on fitting PP			Weight [approx. g]
				dm	z	Lm	dm	z	Lm	dg	Ls	S*	
G3/4"	10	35	165	16	171	199	-	-	-	-	-	-	80
G3/4"	10	35	165	16	171	199	-	-	-	-	-	-	80
G3/4"	10	35	165	16	171	199	-	-	-	-	-	-	80
G3/4"	10	35	165	16	171	199	-	-	-	-	-	-	80
G1"	15	43	185	20	191	223	19,5	195	223	20	293	1,9	130
G1"	15	43	1dd85	20	191	223	19,5	195	223	20	293	1,9	130
G1"	15	43	185	20	191	223	19,5	195	223	20	293	1,9	130
G11/2"	25	60	200	32	206	250	31,5	210	246	32	320	3,0	240
G11/2"	25	60	200	32	206	250	31,5	210	246	32	320	3,0	240
G11/2"	25	60	200	32	206	250	31,5	210	246	32	320	3,0	240
G11/2"	25	60	200	32	206	250	31,5	210	246	32	320	3,0	240

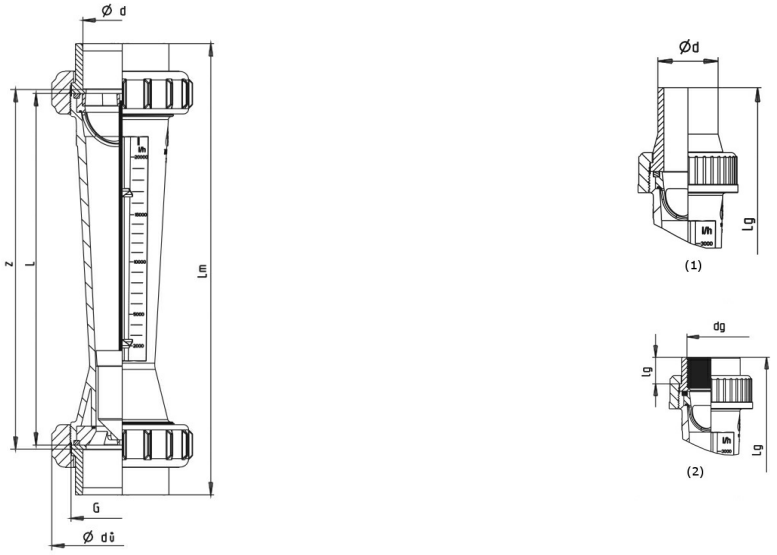
* Wall thickness

© STASTO Automation KG

Measuring ranges depending on the inlet pressure

Measuring ranges [Nm³/h]									
0bar	1bar	2bar	3bar	4bar	5bar	6bar	7bar	8bar	Type
0,1...0,55	0,15...0,8	0,17...0,9	0,2...1,1	0,25...1,2	0,25...1,3	0,26...1,45	0,3...1,5	0,3...1,6	FM06-38-M-0,55
0,2...0,95	0,25...1,3	0,3...1,6	0,4...1,9	0,4...2,1	0,5...2,4	0,5...2,5	0,5...2,7	0,6...2,9	FM06-38-M-0,95
0,5...1,9	0,7...2,7	0,8...3,4	1...3,8	1,2...4,2	1,2...4,6	1,2...5	1,4...5,4	1,4...5,8	FM06-38-M-1,9
0,8...3	1...4,2	1,2...5,4	1,4...6,4	1,6...7	1,6...7,4	2...8	2...8,8	2...9	FM06-38-M-3
0,6...2,8	0,8...4	1...5	1,2...5,6	1,4...6,4	1,4...7	1,5...7,5	1,5...8	1,5...8,5	FM06-12-M-2,8
1,4...5,6	2...8	2...10	3...12	3...13	3...14	3,5...15	3,5...16,5	4...17	FM06-12-M-5,6
1,5...7	2...10	3...13	3...15	4...17	4...18	4...20	5...21	5...23	FM06-12-M-7
1...6,5	1...9	1,5...11	2...13	2...14,5	2...16	2...17	2,5...18	2,5...19,5	FM06-10-M-6,5
1,5...11	2...15	2,5...18	3...22	3...24	4...26	4...28	4...30	4...33	FM06-10-M-11
3...18	4...25	5...30	5...35	6...40	6...44	8...48	8...50	8...54	FM06-10-M-18
6...30	8...44	10...54	12...62	12...70	15...75	15...80	15...85	20...90	FM06-10-M-30

Dimensions FM07



(1)...Fitting with welding nipple, (2)...Fitting with threaded sleeve

Connection G	Scale/Measuring range [Nm³/h] 0bar/20°C	DN	d	dü	L	Threaded socket			Weight [approx. g]	Type
						dg	Lg	lg		
G11/2"	2...15	25	32	60	350	G1"	400	17	920	FM07-10-M-15
G11/2"	3,5...30	25	32	60	350	G1"	400	17	920	FM07-10-M-30
G2"	5...45	32	40	72	350	G11/4"	408	19	1200	FM07-114-M-45
G2"	8...76	32	40	72	350	G11/4"	408	19	1200	FM07-114-M-76
G21/4"	7...60	40	50	83	350	G11/2"	418	23	2000	FM07-112-M-60
G21/4"	10...87	40	50	83	350	G11/2"	418	23	2000	FM07-112-M-87
G21/4"	20...170	40	50	83	350	G11/2"	418	23	2000	FM07-112-M-170
G23/4"	25...180	50	63	103	350	G2"	432	23	2300	FM07-20-M-180
G23/4"	30...280	50	63	103	350	G2"	432	23	2300	FM07-20-M-280
G23/4"	50...440	50	63	103	350	G2"	432	23	2300	FM07-20-M-440
G31/2"	70...580	65	75	122	350	G21/2"	444	...	3500	FM07-212-M-580
G31/2"	100...900	65	75	122	350	G21/2"	444	...	3500	FM07-212-M-900
G31/2"	230...1650	65	75	122	350	G21/2"	444	...	3500	FM07-212-M-1650

© STASTO Automation KG

Special versions ... Connections

Connection G	DN	d	dü	L	Adhesive socket PVC			Welding socket PP			Weld-on fitting PP			Weight [approx. g]
					dm	z	Lm	dm	z	Lm	d	Lg	S*	
G11/2"	25	32	60	350	32	356	400	32	360	396	32	460	2,9	520
G11/2"	25	32	60	350	32	356	400	32	360	396	32	460	2,9	520
G2"	32	40	72	350	40	356	408	40	360	400	40	476	3,7	600
G2"	32	40	72	350	40	356	408	40	360	400	40	476	3,7	600
G21/4"	40	50	83	350	50	356	418	50	360	406	50	482	4,6	1220
G21/4"	40	50	83	350	50	356	418	50	360	406	50	482	4,6	1220
G21/4"	40	50	83	350	50	356	418	50	360	406	50	482	4,6	1220
G23/4"	50	63	103	350	63	356	432	63	360	414	63	488	5,8	1680
G23/4"	50	63	103	350	63	356	432	63	360	414	63	488	5,8	1680
G23/4"	50	63	103	350	63	356	432	63	360	414	63	488	5,8	1680
G31/2"	65	75	122	350	75	356	444	75	360	422	75	602	6,9	2900
G31/2"	65	75	122	350	75	356	444	75	360	422	75	602	6,9	2900
G31/2"	65	75	122	350	75	356	444	75	360	422	75	602	6,9	2900

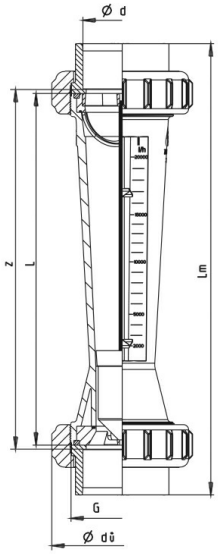
* Wall thickness

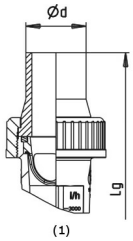
Measuring ranges depending on the inlet pressure

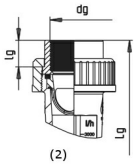
Measuring ranges [Nm³/h]									
0bar	1bar	2bar	3bar	4bar	5bar	6bar	7bar	8bar	Type
2...15	3...21	4...25	4...30	5...33	5...36	6...39	6...42	6...45	FM07-10-M-15
3,5...30	5...42	7...51	7...60	8...66	9...73	10...79	10...84	11...90	FM07-10-M-30
5...45	7...63	9...77	10...90	12...100	13...109	14...118	15...126	15...135	FM07-114-M-45
8...76	11...107	14...131	16...150	18...169	20...185	22...200	23...214	24...228	FM07-114-M-76
7...60	10...84	13...103	14...120	16...133	18...146	19...158	20...169	21...180	FM07-112-M-60
10...87	14...122	18...150	20...174	23...194	25...212	27...229	29...245	30...261	FM07-112-M-87
20...170	28...239	35...294	40...340	45...379	49...414	53...448	57...479	60...510	FM07-112-M-170
25...180	35...253	44...311	50...360	56...401	61...439	66...475	71...507	75...540	FM07-20-M-180
30...280	42...394	52...484	60...560	67...624	74...683	80...739	85...789	90...840	FM07-20-M-280
50...440	71...620	87...761	100...880	112...981	122...1073	132...1161	141...1240	150...1320	FM07-20-M-440
70...580	99...817	122...1003	140...1160	157...1293	171...1415	185...1531	198...1635	210...1740	FM07-212-M-580
100...900	141...1269	173...1557	200...1800	223...2007	244...2196	264...2376	282...2538	300...2700	FM07-212-M-900
230...1650	325...2326	398...2854	460...3300	513...3679	562...4026	608...4356	649...4653	1650...4950	FM07-212-M-1650

© STASTO Automation KG

Dimensions FM12







(1)...Fitting with welding nipple, (2)...Fitting with threaded sleeve

Connection G	Measuring ranges [Nm³/h] 0bar/20°C	DN	d	dü	L	Threaded socket			Weight [approx. g]	Type
						dg	Lg	lg		
G11/2"	1,5...14	25	32	60	335	G1"	385	17	920	FM12-10-M-14
G11/2"	2,5...29	25	32	60	335	G1"	385	17	920	FM12-10-M-29
G2"	4...45	32	40	72	335	G11/4"	393	19	1200	FM12-114-M-45
G2"	7...79	32	40	72	335	G11/4"	393	19	1200	FM12-114-M-79
G21/4"	6...58	40	50	83	335	G11/2"	403	23	2000	FM12-112-M-58
G21/4"	9...108	40	50	83	335	G11/2"	403	23	2000	FM12-112-M-108
G21/4"	17...174	40	50	83	335	G11/2"	403	23	2000	FM12-112-M-174
G23/4"	17...175	50	63	103	335	G2"	417	23	2300	FM12-20-M-175
G23/4"	29...301	50	63	103	335	G2"	417	23	2300	FM12-20-M-301
G23/4"	53...405	50	63	103	335	G2"	417	23	2300	FM12-20-M-405
G31/2"	55...545	65	75	122	335	G21/2"	...	...	3500	FM12-212-M-545
G31/2"	80...758	65	75	122	335	G21/2"	...	...	3500	FM12-212-M-758
G31/2"	140...840	65	75	122	335	G21/2"	...	...	3500	FM12-212-M-840

Special versions ... Connections

Connection G	DN	d	dü	L	Adhesive socket PVC			Welding socket PP			Weld-on fitting PP			Weight [approx. g]
					dm	z	Lm	dm	z	Lm	d	Lg	S*	
G11/2"	25	32	60	335	32	341	385	32	345	381	32	455	2,9	520
G11/2"	25	32	60	335	32	341	385	32	345	381	32	455	2,9	520
G2"	32	40	72	335	40	341	393	40	345	385	40	461	3,7	600
G2"	32	40	72	335	40	341	393	40	345	385	40	461	3,7	600
G21/4"	40	50	83	335	50	341	403	50	345	391	50	467	4,6	1220
G21/4"	40	50	83	335	50	341	403	50	345	391	50	467	4,6	1220
G21/4"	40	50	83	335	50	341	403	50	345	391	50	467	4,6	1220
G23/4"	50	63	103	335	63	341	417	63	345	399	63	473	5,8	1680
G23/4"	50	63	103	335	63	341	417	63	345	399	63	473	5,8	1680
G23/4"	50	63	103	335	63	341	417	63	345	399	63	473	5,8	1680
G31/2"	65	75	122	335	75	341	429	75	345	407	75	587	6,9	2900
G31/2"	65	75	122	335	75	341	429	75	345	407	75	587	6,9	2900
G31/2"	65	75	122	335	75	341	429	75	345	407	75	587	6,9	2900

* Wall thickness

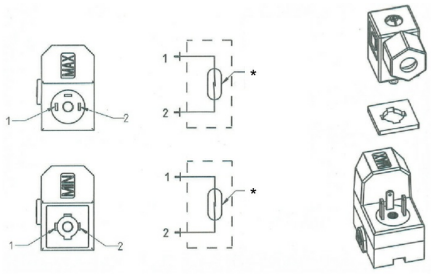
© STASTO Automation KG

Measuring ranges depending on the inlet pressure

Measuring ranges [Nm³/h]									
0bar	1bar	2bar	3bar	4bar	5bar	6bar	7bar	8bar	Type
1,5...14	3...20	3...24	3...28	4...31	4...34	5...37	5...39	4,5...42	FM012-10-M-14
2,5...29	4...41	5...50	5...58	6...65	7...71	7...76	8...82	7,5...87	FM12-10-M-29
4...45	6...63	7...77	8...90	9...100	10...110	11...119	12...127	12...135	FM12-114-M-45
7...79	10...111	12...136	14...158	16...177	18...193	19...209	20...223	21...237	FM12-114-M-79
6...58	9...82	11...100	12...116	14...130	15...142	16...153	17...164	18...174	FM12-112-M-58
9...108	13...152	16...186	18...216	21...241	23...264	24...286	26...305	27...324	FM12-112-M-108
17...174	24...246	30...301	34...348	39...389	42...426	45...461	49...492	51...522	FM12-112-M-174
17...175	24...247	30...302	34...350	39...392	42...428	45...463	49...495	51...525	FM12-20-M-175
29...301	41...425	51...520	58...602	65...674	72...737	77...797	83...851	87...903	FM12-20-M-301
53...405	75...572	92...700	106...810	119...907	130...992	141...1073	150...1146	159...1215	FM12-20-M-405
55...545	78...770	96...942	110...1090	124...1220	135...1335	146...1444	156...1542	165...1635	FM12-212-M-545
80...758	113...1072	139...1311	160...1516	180...1697	197...1857	212...2008	227...2145	240...2274	FM12-212-M-758
140...840	200...1150	250...1450	300...1650	300...1850	350...2000	350...2200	400...2300	400...2500	FM12-212-M-840

Accessories ... Limit switch SG...BI...S and SG...BI...O



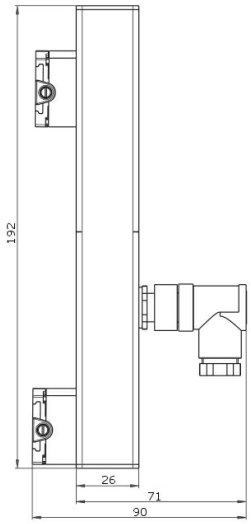


*Pin assignment Reed switch

Function	Normally closed or normally open bistable
Switching states	SG...BI...O (Normally open): Float above open, Float below closed SG...BI...S (Normally closed (NC)): Float above closed, Float below open
Operating voltage	max. 230VAC
Switching current	max. 0,5A
Switching capacity	max. 10W / 12VA
Ambient temperature	0...+55°C
Degree of protection	IP65
Switch-on and switch-off hysteresis	1...2mm Float travel

© STASTO Automation KG

Accessories ... Measured value sensor ZAT...300



Pin 1: 12...24VDC
Pin 2: 4...20mA
Pin 1: 0V

Operating voltage	12VDC... 24VDC (±10%)
Output	analog, 4mA... 20mA
Accuracy	<1%
Ambient temperature	0... +50°C
Degree of protection	IP65
Connection	Connector after DIN 43650
Burden resistance	max. 500Ohm

Measurement accuracy

Flow rate [%]	10	20	30	40	50	60	70	80	90	100
Total error of measured value [%]	13,00	8,00	6,33	5,50	5,00	4,67	4,43	4,25	4,11	4,00
Total error of full-scale value [%]	1,3	1,6	1,9	2,2	2,5	2,8	3,1	3,4	3,7	4,0

Illustrations non-binding
Design, dimensional and material changes reserved

+43 512 52076
austria@stasto.eu
© STASTO Automation KG