

Overview



SITRANS WF300 series are low to medium capacity flowmeters for various product sizes, densities, and fluidities.

Benefits

- For specialized pre-feed applications
- Sensing element mounted outside process
- Flowrates from 0.2 to 300 t/h (0.2 to 330 STPH)
- Continuously monitoring of the material flow without interrupting the process
- Dust-tight construction: suitable for use in hazardous areas and in washdown applications that require frequent cleaning
- Minimal maintenance or recalibration after the initial installation and material tests

Application

With weighing mechanics located externally, the WF300 series solids flowmeters are unaffected by corrosive, abrasive, or hot materials. Handling a wide range of product sizes, densities, and fluidities including fine powders such as cement, they operate at process temperatures to 230 °C (450 °F). The flowmeters help to improve final product, increase operating efficiency, and realize significant cost savings.

Operating with the appropriate SITRANS WFS sensing head and a micro-processor-based integrator package, the WF300 series flowmeters provide a display of the flow rate, totalized flow, and alarms. Outputs are 0/4 to 20 mA proportional to rate, and open collector output for remote totalization.

Dry bulk solids enter the flow guide producing a mechanical deflection as they strike the flowmeter sensing plate before continuing through the process unhindered. The LVDT in the sensing head converts the deflection of the horizontal force into an electrical signal. The integrator processes this signal into a display of flowrate and integrated total weight. The weighing process is immune to the effect of product build-up as only the horizontal force is measured. SITRANS WF330 flowmeters are totally enclosed, with external weighing mechanics, operating with corrosive, abrasive or hot materials. SITRANS WF350 series operates with aerated gravity conveyors, and includes integral vents and baffles for air separation. For applications with little available headroom, the SITRANS WF340 series flowmeters provide the answer.

Solid Flowmeters

SITRANS WF300 series

Selection and ordering data

SITRANS WF330 Solids flowmeter, general purpose design Impact solids flowmeter for low to medium capacity applications. Accuracy is $\pm 1\%$ or better, with capacity up to 300 t/h (330 STPH).		Article No. 7MH7102- ● ● ● ● 0				
Click on the Article No. for the online configuration in the PIA Life Cycle Portal.						
Model						
Base mount, 40 t/h (44 STPH) maximum design capacity					1	
Side mount, 40 t/h (44 STPH) maximum design capacity					2	
Base mount, 300 t/h (330 STPH) maximum design capacity					3	
Flowguide size						
No flowguide					A	
2 inch ASME flange pattern ¹⁾					B	
4 inch ASME flange pattern ¹⁾					C	
6 inch ASME flange pattern ²⁾					D	
8 inch ASME flange pattern ²⁾					E	
10 inch ASME flange pattern ²⁾					F	
12 inch ASME flange pattern ³⁾					G	
14 inch ASME flange pattern ³⁾					H	
16 inch ASME flange pattern ³⁾					J	
DN 50 flange pattern ¹⁾					K	
DN 100 flange pattern ¹⁾					L	
DN 150 flange pattern ²⁾					M	
DN 200 flange pattern ²⁾					N	
DN 250 flange pattern ²⁾					P	
DN 300 flange pattern ³⁾					Q	
DN 350 flange pattern ³⁾					R	
DN 400 flange pattern ³⁾					S	
Flowguide construction						
No flowguide					A	
Mild steel, C5-M rated polyester painted					B	
Mild steel, epoxy painted with zinc primer ¹⁾					C	
Mild steel, epoxy painted with zinc primer ³⁾					D	
304 (1.4301) stainless steel ¹⁾					E	
304 (1.4301) stainless steel ³⁾					F	
316 (1.4401) stainless steel ¹⁾					G	
316 (1.4401) stainless steel ³⁾					H	
Cabinet construction						
Mild steel, C5-M rated polyester painted					1	
Mild steel, epoxy painted with zinc primer ¹⁾					2	
Mild steel, epoxy painted with zinc primer ³⁾					3	
304 (1.4301) stainless steel ¹⁾					4	
304 (1.4301) stainless steel ³⁾					5	
316 (1.4401) stainless steel ¹⁾					6	
316 (1.4401) stainless steel ³⁾					7	

Further designs	Order Code
Please add "-Z" to Article No. and specify order code(s).	
Stainless steel tag [69 x 38 mm (2.7 x 1.5 inch)], Measuring-point number/identification (max. 27 characters), specify in plain text.	Y15
Application Eng. reference number (max. 15 characters), specify in plain text.	Y31
Manufacturer's test certificate: According to EN 10204-2.2	C11
Inspection certificate type 3.1 per EN 10204 ⁴⁾	C12
Note: not available with cabinet construction option 1	
Instruction manuals	
All literature is available to download for free, in a range of languages, at	
http://www.siemens.com/weighing/documentation	

Selection and ordering data (Continued)

- 1) For versions 1 and 2 only.
- 2) For versions 1, 2 or 3.
- 3) For version 3 only.
- 4) Not available with cabinet construction options 1, 2, 3.

Spare parts	Article No.
<u>40 TPH, mild steel flowguide</u>	
2 inch ASME	PBD:20377-111
4 inch ASME	PBD:20377-211
6 inch ASME	PBD:20377-311
8 inch ASME	PBD:20377-411
10 inch ASME	PBD:20377-511
<u>40 TPH, mild steel-epoxy flowguide</u>	
2 inch ASME	PBD:20377-112
4 inch ASME	PBD:20377-212
6 inch ASME	PBD:20377-312
8 inch ASME	PBD:20377-412
10 inch ASME	PBD:20377-512
<u>40 TPH, 304 (1.4301) stainless steel flowguide</u>	
2 inch ASME	PBD:20377-114
4 inch ASME	PBD:20377-214
6 inch ASME	PBD:20377-314
8 inch ASME	PBD:20377-414
10 inch ASME	PBD:20377-514
<u>40 TPH, 316 (1.4401) stainless steel flowguide</u>	
2 inch ASME	PBD:20377-115
4 inch ASME	PBD:20377-215
6 inch ASME	PBD:20377-315
8 inch ASME	PBD:20377-415
10 inch ASME	PBD:20377-515
<u>300 TPH, mild steel flowguide</u>	
6 inch ASME	PBD:20388-111
8 inch ASME	PBD:20388-211
10 inch ASME	PBD:20388-311
12 inch ASME	PBD:20388-411
14 inch ASME	PBD:20388-511
16 inch ASME	PBD:20388-611
<u>300 TPH, mild steel-epoxy flowguide</u>	
6 inch ASME	PBD:20388-112
8 inch ASME	PBD:20388-212
10 inch ASME	PBD:20388-312
12 inch ASME	PBD:20388-412
14 inch ASME	PBD:20388-512
16 inch ASME	PBD:20388-612
<u>300 TPH, 304 (1.4301) stainless steel flowguide</u>	
6 inch ASME	PBD:20388-114
8 inch ASME	PBD:20388-214
10 inch ASME	PBD:20388-314
12 inch ASME	PBD:20388-414
14 inch ASME	PBD:20388-514
16 inch ASME	PBD:20388-614
<u>300 TPH, 316 (1.4401) stainless steel flowguide</u>	
6 inch ASME	PBD:20388-115
8 inch ASME	PBD:20388-215
10 inch ASME	PBD:20388-315

Solid Flowmeters

SITRANS WF300 series

Selection and ordering data (Continued)

Spare parts	Article No.
12 inch ASME	PBD:20388-415
14 inch ASME	PBD:20388-515
16 inch ASME	PBD:20388-615
<u>40 TPH, mild steel flowguide</u>	
2 inch DIN	PBD:20377-121
4 inch DIN	PBD:20377-221
6 inch DIN	PBD:20377-321
8 inch DIN	PBD:20377-421
10 inch DIN	PBD:20377-521
<u>40 TPH, mild steel-epoxy flowguide</u>	
2 inch DIN	PBD:20377-122
4 inch DIN	PBD:20377-222
6 inch DIN	PBD:20377-322
8 inch DIN	PBD:20377-422
10 inch DIN	PBD:20377-522
<u>40 TPH, 304 (1.4301) stainless steel flowguide</u>	
2 inch DIN	PBD:20377-124
4 inch DIN	PBD:20377-224
6 inch DIN	PBD:20377-324
8 inch DIN	PBD:20377-424
10 inch DIN	PBD:20377-524
<u>40 TPH, 316 (1.4401) stainless steel flowguide</u>	
2 inch DIN	PBD:20377-125
4 inch DIN	PBD:20377-225
6 inch DIN	PBD:20377-325
8 inch DIN	PBD:20377-425
10 inch DIN	PBD:20377-525
<u>300 TPH, mild steel flowguide</u>	
6 inch DIN	PBD:20388-121
8 inch DIN	PBD:20388-221
10 inch DIN	PBD:20388-321
12 inch DIN	PBD:20388-421
14 inch DIN	PBD:20388-521
16 inch DIN	PBD:20388-621
<u>300 TPH, mild steel-epoxy flowguide</u>	
6 inch DIN	PBD:20388-122
8 inch DIN	PBD:20388-222
10 inch DIN	PBD:20388-322
12 inch DIN	PBD:20388-422
14 inch DIN	PBD:20388-522
16 inch DIN	PBD:20388-622
<u>300 TPH, 304 (1.4301) stainless steel flowguide</u>	
6 inch DIN	PBD:20388-124
8 inch DIN	PBD:20388-224
10 inch DIN	PBD:20388-324
12 inch DIN	PBD:20388-424
14 inch DIN	PBD:20388-524
16 inch DIN	PBD:20388-624
<u>300 TPH, 316 (1.4401) stainless steel flowguide</u>	
6 inch DIN	PBD:20388-125
8 inch DIN	PBD:20388-225
10 inch DIN	PBD:20388-325
12 inch DIN	PBD:20388-425
14 inch DIN	PBD:20388-525

Selection and ordering data (Continued)

Spare parts	Article No.
16 inch DIN	PBD:20388-625

SITRANS WF340 Solids flowmeter, compact design Impact solids flowmeter for low to medium capacity applications. Accuracy is $\pm 1\%$ or better, with capacity up to 300 t/h (330 STPH).		Article No.					
		7MH7104-	●	●	●	●	0
Click on the Article No. for the online configuration in the PIA Life Cycle Portal.							
Version							
Base mount, 40 t/h (44 STPH) max. design -capacity						1	
Side mount, 40 t/h (44 STPH) max. design capacity						2	
Base mount, 300 t/h (330 STPH) max. design -capacity						3	
Flowguide size							
No flowguide (5 x 16 inch model)						A	
3 x 6 inch (76 x 152 mm) ¹⁾						B	
4 x 10 inch (102 x 254 mm) ¹⁾						C	
5 x 12 inch (127 x 305 mm) ¹⁾						D	
5 x 16 inch (127 x 406 mm) ²⁾						E	
6 x 20 inch (152 x 508 mm) ²⁾						F	
No flowguide (WF340-300 6 x 20 inch model)						G	
Flowguide construction							
No flowguide						A	
Mild steel, C5-M rated polyester painted						B	
304 (1.4301) stainless steel ¹⁾						C	
304 (1.4301) stainless steel ²⁾						D	
316 (1.4401) stainless steel ¹⁾						E	
316 (1.4401) stainless steel ²⁾						F	
Mild steel, C5-M rated polyester painted with PTFE liner						G	
Mild steel, C5-M rated polyester painted with abrasion resistant liner						H	
304 (1.4301) stainless steel, with PTFE liner ¹⁾						J	
304 (1.4301) stainless steel, with PTFE liner ²⁾						K	
Mild steel, epoxy paint with zinc primer ¹⁾						L	
Mild steel, epoxy paint with zinc primer ²⁾						M	
Other flowguide materials available upon request							
Cabinet construction							
Mild steel, painted						1	
304 (1.4301) stainless steel ¹⁾						2	
304 (1.4301) stainless steel ²⁾						3	
316 (1.4401) stainless steel ¹⁾						4	
316 (1.4401) stainless steel ²⁾						5	
Mild steel, epoxy paint with zinc primer ¹⁾						6	
Mild steel, epoxy paint with zinc primer ²⁾						7	

¹⁾ For versions 1 and 2 only.

²⁾ For version 3 only.

³⁾ Not available with cabinet construction option 1.

Further designs	Order Code
Please add "-Z" to article no. and specify order code(s).	
Stainless steel tag [69 x 38 mm (2.7 x 1.5 inch)], Measuring-point number/identification (max 27 characters), specify in plain text.	Y15
Application Eng. reference number (max.15 characters), specify in plain text.	Y31
Manufacturer's test certificate: According to EN 10204-2.2	C11
Inspection certificate type 3.1 per EN 10204 ³⁾	C12

Solid Flowmeters

SITRANS WF300 series

Selection and ordering data (Continued)

Further designs	Order Code
Instruction manual All literature is available to download for free, in a range of languages, at http://www.siemens.com/weighing/documentation	

- 1) For versions 1 and 2 only.
- 2) For version 3 only.
- 3) Not available with cabinet construction option 1.

Spare parts	Article No.
<u>40 TPH, mild steel flowguide</u>	
3 x 6 inch	PBD:20401-100
4 x 10 inch	PBD:20395-100
5 x 12 inch	PBD:20405-100
<u>40 TPH, mild steel-epoxy flowguide</u>	
3 x 6 inch	PBD:20401-200
4 x 10 inch	PBD:20395-200
5 x 12 inch	PBD:20405-200
<u>40 TPH, 304 (1.4301) stainless steel flowguide</u>	
3 x 6 inch	PBD:20401-300
4 x 10 inch	PBD:20395-300
5 x 12 inch	PBD:20405-300
<u>40 TPH, 316 (1.4401) stainless steel flowguide</u>	
3 x 6 inch	PBD:20401-400
4 x 10 inch	PBD:20395-400
5 x 12 inch	PBD:20405-400
<u>40 TPH, mild steel-PTFE flowguide</u>	
3 x 6 inch	PBD:20401-500
4 x 10 inch	PBD:20395-500
5 x 12 inch	PBD:20405-500
<u>40 TPH, 304 (1.4301) stainless steel-PTFE -flowguide</u>	
3 x 6 inch	PBD:20401-600
4 x 10 inch	PBD:20395-600
5 x 12 inch	PBD:20405-600
<u>40 TPH, mild steel-AR flowguide</u>	
3 x 6 inch	PBD:20401-700
4 x 10 inch	PBD:20395-700
5 x 12 inch	PBD:20405-700
<u>300 TPH, mild steel flowguide</u>	
5 x 16 inch	PBD:20455-10
6 x 20 inch	PBD:20458-10
<u>300 TPH, mild steel-epoxy flowguide</u>	
5 x 16 inch	PBD:20455-20
6 x 20 inch	PBD:20458-20
<u>300 TPH, 304 (1.4301) stainless steel flowguide</u>	
5 x 16 inch	PBD:20455-30
6 x 20 inch	PBD:20458-30
<u>300 TPH, 304 (1.4301) stainless steel-PTFE flowguide</u>	
5 x 16 inch	PBD:20455-40
6 x 20 inch	PBD:20458-40
<u>300 TPH, 316 (1.4401) stainless steel flowguide</u>	
5 x 16 inch	PBD:20455-50
6 x 20 inch	PBD:20458-50
<u>300 TPH, mild steel-PTFE flowguide</u>	

Selection and ordering data (Continued)

Spare parts	Article No.
5 x 16 inch	PBD:20455-60
6 x 20 inch	PBD:20458-60
<u>300 TPH, mild steel-AR flowguide</u>	
5 x 16 inch	PBD:20455-70
6 x 20 inch	PBD:20458-70

SITRANS WF350 Solids flowmeter, aerated infeed design Impact solids flowmeter for low to medium capacity applications. Accuracy is $\pm 1\%$ or better, with capacity up to 300 t/h (330 STPH).	Article No.			
	7MH7106-	●	●	●
Click on the Article No. for the online configuration in the PIA Life Cycle Portal.				
Version				
40 t/h (44 STPH) maximum design capacity	1			
300 t/h (330 STPH) maximum design capacity	2			
Flowguide size				
8 inch (203 mm), 40 t/h (0.2 to 44 STPH) version		B		
10 inch (254 mm), 300 t/h		C		
12 inch (305 mm), 40 t/h (0.2 to 44 STPH) version		D		
14 inch (356 mm), 300 t/h		E		
20 inch (508 mm), 300 t/h		F		
Flowguide construction				
Mild steel, C5-M rated polyester painted			B	
304 (1.4301) stainless steel			D	
316 (1.4401) stainless steel			E	
Cabinet construction				
Mild steel, C5-M rated polyester painted				1
304 (1.4301) stainless steel				3
316 (1.4401) stainless steel				4
Venting flange				
ASME flange pattern				1
DIN flange pattern				2

Further designs	Order Code
Please add "-Z" to article no. and specify order code(s).	
Stainless steel tag [69 x 38 mm (2.7 x 1.5 inch)], Measuring-point number/identification (max. 27 characters), specify in plain text.	Y15
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Inspection certificate type 3.1 per EN 10204 Not available with cabinet construction option 1	C12
Instruction manuals	
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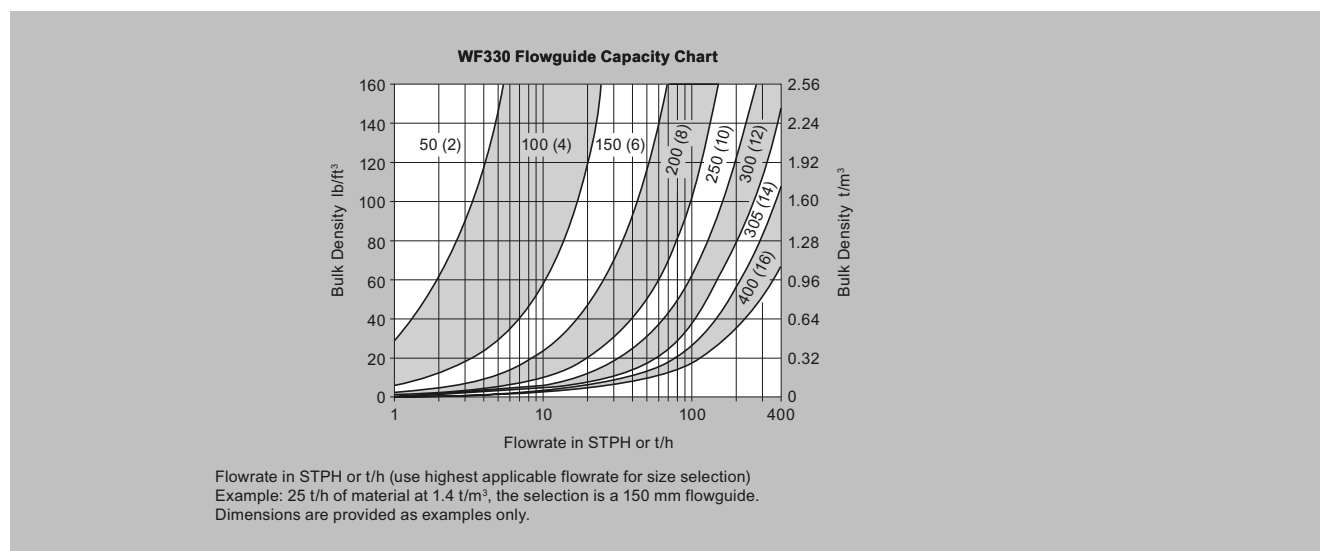
Solid Flowmeters

SITRANS WF300 series

Selection and ordering data (Continued)

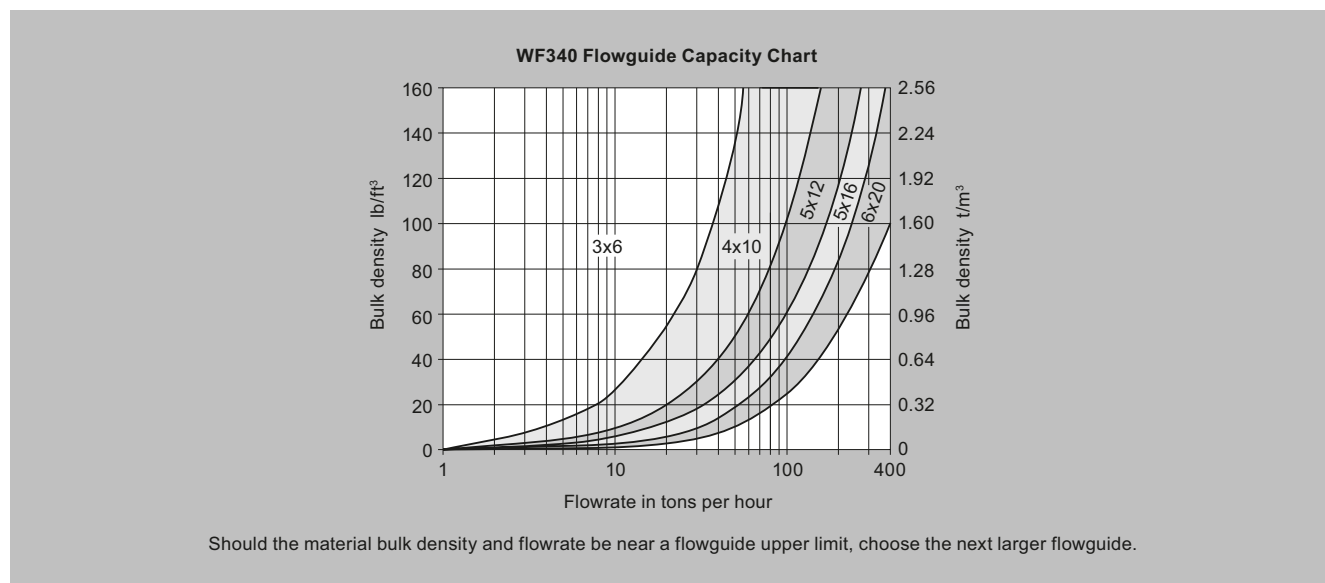
Spare Parts	
<u>40 TPH, mild steel flowguide</u>	
8 inch	PBD:22520-1A0
12 inch	PBD:22520-2A0
<u>40 TPH, 304 (1.4301) stainless steel flowguide</u>	
8 inch	PBD:22520-1B0
12 inch	PBD:22520-2B0
<u>40 TPH, 316 (1.4401) stainless steel flowguide</u>	
8 inch	PBD:22520-1C0
12 inch	PBD:22520-2C0
<u>300 TPH, mild steel flowguide</u>	
10 inch	PBD:22519-1A0
14 inch	PBD:22519-2A0
20 inch	PBD:22519-3A0
<u>300 TPH, 304 (1.4301) stainless steel flowguide</u>	
10 inch	PBD:22519-1B0
14 inch	PBD:22519-2B0
20 inch	PBD:22519-3B0
<u>40 TPH, 316 (1.4401) stainless steel flowguide</u>	
10 inch	PBD:22519-1C0
14 inch	PBD:22519-2C0
20 inch	PBD:22519-3C0

Characteristic curves



SITRANS WF330 flowguide capacity chart

Characteristic curves (Continued)

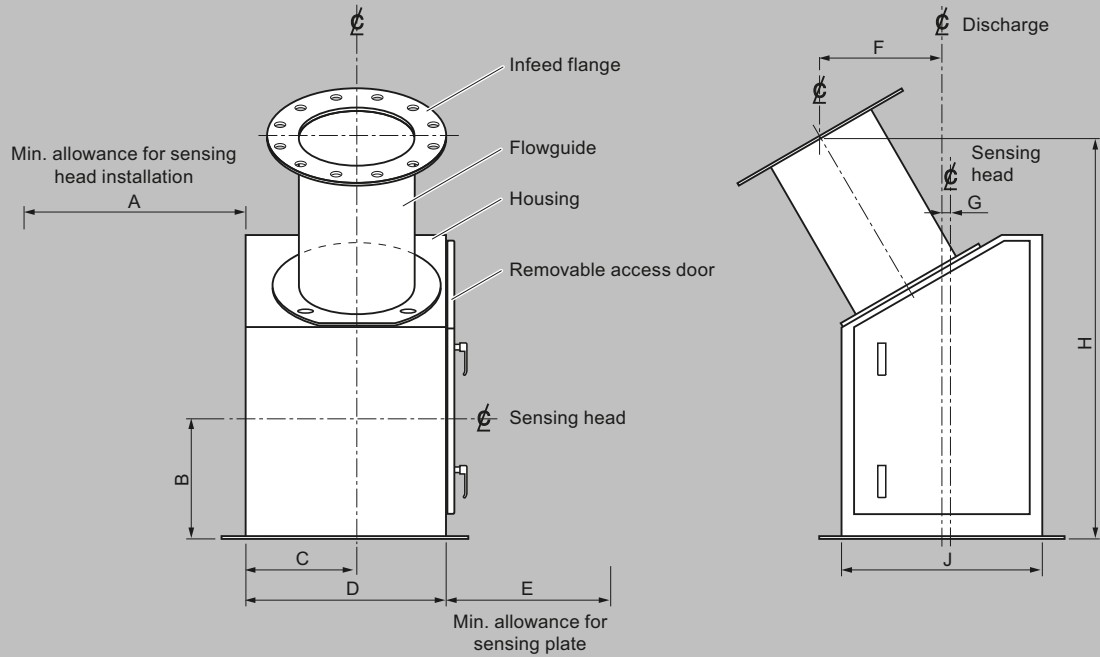


SITRANS WF340 flowguide capacity chart

Solid Flowmeters

SITRANS WF300 series

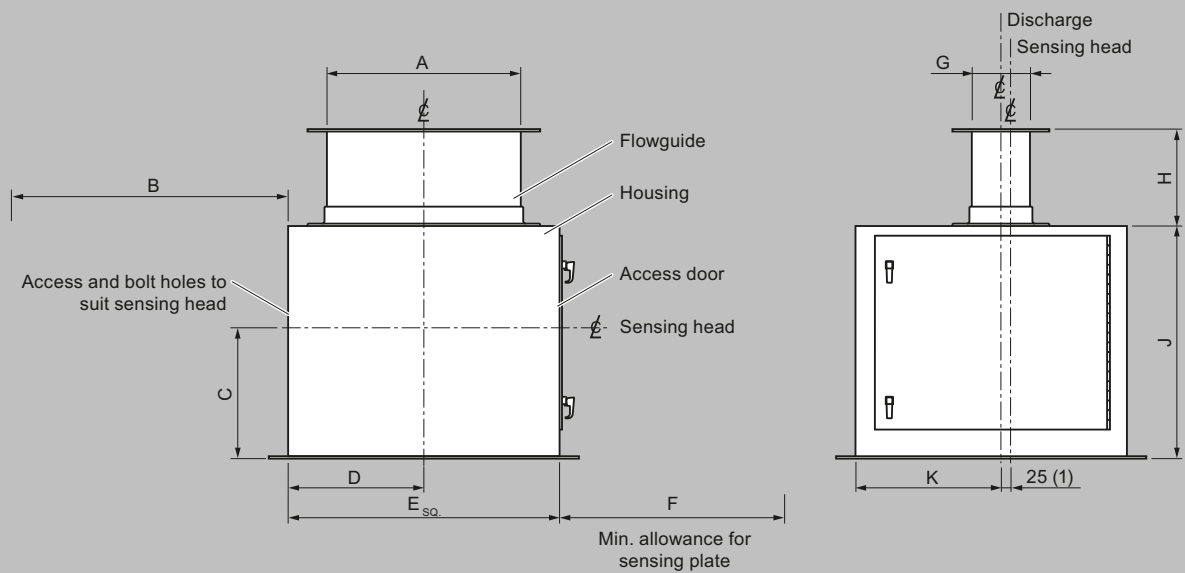
Dimensional drawings



Model	A	B	C	D	E	F	G	H	J
40 t/h (44 STPH)	686 (27)	356 (14)	254 (10)	457 (18)	610 (24)	279 (11)	25 (1)	914 (36)	457 (18)
300 t/h (330 STPH)	1 042 (41)	457 (18)	305 (12)	610 (24)	610 (24)	330 (13)	38 (1.5)	1 270 (50)	610 (24)
40 t/h version inlet sizes									
51 (2)	102 (4)		152 (6)		203 (8)		254 (10)		
300 t/h version inlet sizes									
152 (6)	203 (8)		254 (10)		305 (12)		356 (14)		406 (16)

SITRANS WF300, dimensions in mm (inch)

Dimensional drawings (Continued)



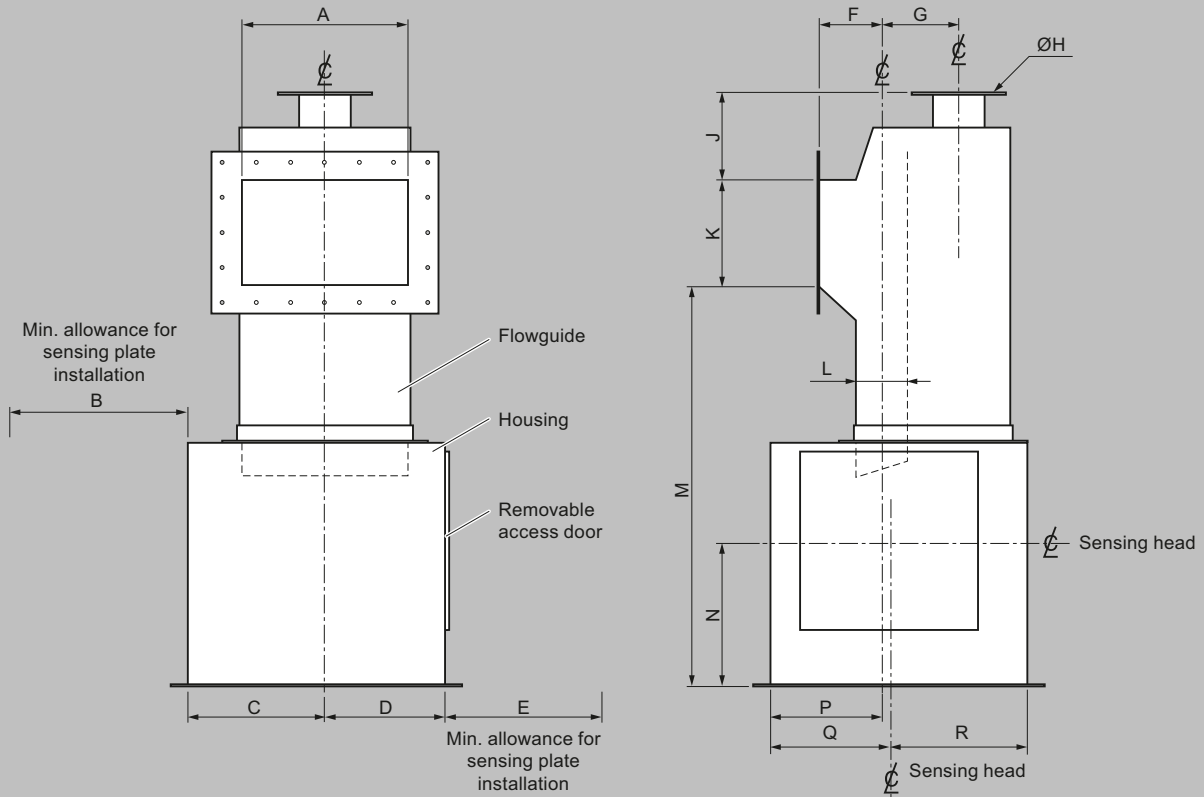
Size	A	B	C	D	E	F	G	H	J	K
40 t/h (44 STPH)	152 (6)	686 (27)	304 (12)	254 (10)	508 (20)	457 (18)	76 (3)	203 (8)	508 (20)	254 (10)
40 t/h (44 STPH)	254 (10)	686 (27)	304 (12)	254 (10)	508 (20)	457 (18)	102 (4)	203 (8)	508 (20)	254 (10)
40 t/h (44 STPH)	305 (12)	686 (27)	304 (12)	254 (10)	508 (20)	457 (18)	127 (5)	203 (8)	508 (20)	254 (10)
300 t/h (330 STPH)	406 (16)	1 041 (41)	343 (13.5)	305 (12)	610 (24)	762 (30)	127 (5)	254 (10)	610 (24)	330 (13)
300 t/h (330 STPH)	508 (20)	1 041 (41)	343 (13.5)	356 (14)	711 (28)	762 (30)	152 (6)	254 (10)	610 (24)	381 (15)

SITRANS WF340, dimensions in mm (inch)

Solid Flowmeters

SITRANS WF300 series

Dimensional drawings (Continued)



Size	A	B	C	D	E	F	G	H
40 t/h (44 STPH)	203 (8)	686 (27)	305 (12)	254 (10)	711 (28)	127 (5)	203 (8)	102 (4)
40 t/h (44 STPH)	305 (12)	686 (27)	305 (12)	254 (10)	711 (28)	127 (5)	203 (8)	102 (4)
300 t/h (330 STPH)	254 (10)	1 041 (41)	406 (16)	356 (14)	889 (35)	191 (7.5)	229 (9)	152 (6)
300 t/h (330 STPH)	356 (14)	1 041 (41)	406 (16)	356 (14)	889 (35)	191 (7.5)	229 (9)	152 (6)
300 t/h (330 STPH)	508 (20)	1 041 (41)	406 (16)	356 (14)	889 (35)	191 (7.5)	229 (9)	152 (6)

Size	J	K	L	M	N	P	Q	R
40 t/h (44 STPH)	229 (9)	203 (8)	76 (3)	914 (36)	305 (12)	229 (9)	229 (9)	330 (13)
40 t/h (44 STPH)	229 (9)	203 (8)	102 (4)	914 (36)	305 (12)	229 (9)	229 (9)	330 (13)
300 t/h (330 STPH)	254 (10)	305 (12)	127 (5)	1 168 (46)	419 (16.5)	330 (13)	356 (14)	406 (16)
300 t/h (330 STPH)	254 (10)	305 (12)	152 (6)	1 168 (46)	419 (16.5)	330 (13)	356 (14)	406 (16)
300 t/h (330 STPH)	254 (10)	305 (12)	178 (7)	1 168 (46)	419 (16.5)	330 (13)	356 (14)	406 (16)

SITRANS WF350, dimensions in mm (inch)