

# Solids Flowmeters

## Flowmeters

### SITRANS WF100

#### Overview



SITRANS WF100 flowmeter is a low to medium capacity flowmeter for various product sizes, densities, and fluidities in restricted spaces.

#### Benefits

- Flowrates from 3 to 200 t/h (4 to 220 STPH)
- Continuous 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


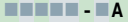
#### Application

WF100 is unaffected by corrosive, abrasive, or hot materials. Handling various product sizes, densities, and fluidities including fine powders such as sugar, the WF100 helps to improve final product, increase operating efficiency, and realize significant cost savings.

Dry bulk solids enter the flow guide producing a mechanical deflection as they strike the flowmeter sensing plate before continuing through the process un-hindered. The WF100 converts the deflection into an electrical signal that feeds into an accompanying integrator, which instantaneously displays the flow rate and totalizes the weight.

#### Key applications

- Cement, wood chips
- Cereals
- Seeds
- Grains
- Soybean and rice hulls
- Unshelled peanuts
- Starch
- Sugar, potato flakes
- Grain tailings and screenings
- Plastic pellets

Selection and Ordering data	Order No.	Order No.
<b>SITRANS WF100</b> Impact solids flowmeter for low to medium capacity applications. Low cost compact unit improves processing, increases efficiency and provides significant cost savings.	C) <b>7MH7186-</b> 	C) <b>7MH7186-</b> 
<b>Flowguide size (Universal flat-faced flange fits ASME/DIN flanges)</b> 4 inch (100 mm) <sup>1)</sup> 6 inch (150 mm) <sup>2)</sup> 8 inch (200 mm) <sup>3)</sup> 10 inch (250 mm) <sup>4)</sup>	<b>1</b> <b>2</b> <b>3</b> <b>4</b>	<b>1 0</b> <b>1 1</b> <b>1 2</b> <b>1 3</b> <b>1 4</b> <b>1 5</b>
<b>Fabrication</b> Mild steel, painted 4 inch (100 mm) flowguide AISI 304 stainless steel 4 inch (100 mm) flowguide AISI 304 stainless steel with PTFE coated infeed 4 inch (100 mm) flowguide AISI 316 stainless steel 4 inch (100 mm) flowguide AISI 316 stainless steel with PTFE coated infeed 4 inch (100 mm) flowguide Mild steel, painted 6 inch (150 mm) flowguide AISI 304 stainless steel 6 inch (150 mm) flowguide AISI 304 stainless steel with PTFE coated infeed 6 inch (150 mm) flowguide AISI 316 stainless steel 6 inch (150 mm) flowguide AISI 316 stainless steel with PTFE coated infeed 6 inch (150 mm) flowguide Mild steel, painted 8 inch (200 mm) flowguide AISI 304 stainless steel 8 inch (200 mm) flowguide AISI 304 stainless steel with PTFE coated infeed 8 inch (200 mm) flowguide AISI 316 stainless steel 8 inch (200 mm) flowguide AISI 316 stainless steel with PTFE coated infeed 8 inch (200 mm) flowguide Mild steel, painted 10 inch (250 mm) flowguide AISI 304 stainless steel 10 inch (250 mm) flowguide AISI 304 stainless steel with PTFE coated infeed 10 inch (250 mm) flowguide AISI 316 stainless steel 10 inch (250 mm) flowguide AISI 316 stainless steel with PTFE coated infeed 10 inch (250 mm) flowguide	<b>A</b> <b>B</b> <b>C</b> <b>D</b> <b>E</b> <b>F</b> <b>G</b> <b>H</b> <b>J</b> <b>K</b> <b>L</b> <b>M</b> <b>N</b> <b>P</b> <b>Q</b> <b>R</b> <b>S</b> <b>T</b> <b>U</b> <b>V</b>	<b>Sensing plate fabrication</b> 4 inch (100 mm) AISI 304 Stainless steel 4 inch (100 mm) AISI 304 Stainless steel with PTFE coating 4 inch (100 mm) AISI 304 Stainless steel with polyurethane coating 4 inch (100 mm) AISI 316 Stainless steel 4 inch (100 mm) AISI 316 Stainless steel with PTFE coating 4 inch (100 mm) AISI 316 Stainless steel with polyurethane coating 6 inch (150 mm) AISI 304 Stainless steel 6 inch (150 mm) AISI 304 Stainless steel with PTFE coating 6 inch (150 mm) AISI 304 Stainless steel with polyurethane coating 6 inch (150 mm) AISI 316 Stainless steel 6 inch (150 mm) AISI 316 Stainless steel with PTFE coating 6 inch (150 mm) AISI 316 Stainless steel with polyurethane coating 8 inch (200 mm) AISI 304 Stainless steel 8 inch (200 mm) AISI 304 Stainless steel with PTFE coating 8 inch (200 mm) AISI 304 Stainless steel with polyurethane coating 8 inch (200 mm) AISI 316 Stainless steel 8 inch (200 mm) AISI 316 Stainless steel with PTFE coating 8 inch (200 mm) AISI 316 Stainless steel with polyurethane coating 10 inch (250 mm) AISI 304 Stainless steel 10 inch (250 mm) AISI 304 Stainless steel with PTFE coating 10 inch (250 mm) AISI 304 Stainless steel with polyurethane coating 10 inch (250 mm) AISI 316 Stainless steel 10 inch (250 mm) AISI 316 Stainless steel with PTFE coating 10 inch (250 mm) AISI 316 Stainless steel with polyurethane coating
<b>Load cell, stainless steel [17-4 PH (1.4568) construction with 304 (1.4301) stainless steel cover]</b> 2 lb (0.9 kg) 5 lb (2.3 kg) 10 lb (4.5 kg) 20 lb (9.1 kg) Not specified (Only for quotation purposes, not a valid ordering option)	<b>A</b> <b>B</b> <b>C</b> <b>D</b> <b>X</b>	<b>2 0</b> <b>2 4</b> <b>2 5</b> <b>2 0</b> <b>2 4</b> <b>2 5</b> <b>3 0</b> <b>3 1</b> <b>3 2</b> <b>3 3</b> <b>3 4</b> <b>3 5</b> <b>4 0</b> <b>4 1</b> <b>4 2</b> <b>4 3</b> <b>4 4</b> <b>4 5</b>
		<b>Approvals</b> Standard: CE, C-TICK CSA/FM Class II, Div. 1, Groups E, F, G and Class III ATEX II 2D, Ex tD A21 IP65 T70 °C, CE, C-TICK, IECEx, Ex tD A21 IP65 T70 °C
		<b>Further designs</b> Please add "-Z" to Order No. and specify Order code(s). Stainless Steel tag [69 x 38 mm (2.7 x 1.5 inch)], Measuring-point number/identification (max 16 characters), specify in plain text. Manufacturer's Test Certificate: According to EN 10204-2.2 Inspection Certificate Type 3.1 per EN 10204
		<b>Order Code</b> <b>Y15</b> <b>C11</b> <b>C12</b>

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### SITRANS WF100

#### Selection and Ordering data (continued)

**SITRANS WF100**  
Impact solids flowmeter for low to medium capacity applications. Low cost compact unit improves processing, increases efficiency and provides significant cost savings.

C) **7MH7186-**



#### Instruction manual

English

C) **7ML1998-5NB01**

German

C) **7ML1998-5NB31**

Note: The instruction manual should be ordered as a separate item on the order.

#### Additional instruction manuals

Solids Flowmeter Application Guide, English

C) **7ML1998-5GK01**

Solids Flowmeter Application Guide, German

C) **7ML1998-5GK31**

This device is shipped with the Siemens Milltronics manual CD containing the complete instruction manual library.

#### Spare parts

WF100 4 inch (100 mm) sensing plate  
304 standard

**7MH7723-1KN**

WF100 6 inch (150 mm) sensing plate  
304 standard

**7MH7723-1KP**

WF100 8 inch (200 mm) sensing plate  
304 standard

**7MH7723-1KQ**

WF100 10 inch (250 mm) sensing plate  
304 standard

**7MH7723-1KR**

WF100 4 inch (100 mm) sensing plate  
316 standard

**7MH7723-1KS**

WF100 6 inch (150 mm) sensing plate  
316 standard

**7MH7723-1KT**

WF100 8 inch (200 mm) sensing plate  
316 standard

**7MH7723-1KU**

WF100 10 inch (250 mm) sensing plate  
316 standard

**7MH7723-1KV**

WF100 4 inch (100 mm) sensing plate  
304 PTFE lined

**7MH7723-1KW**

WF100 6 inch (150 mm) sensing plate  
304 PTFE lined

**7MH7723-1KX**

WF100 8 inch (200 mm) sensing plate  
304 PTFE lined

**7MH7723-1KY**

#### SITRANS WF100

Impact solids flowmeter for low to medium capacity applications. Low cost compact unit improves processing, increases efficiency and provides significant cost savings.

C) **7MH7186-**



WF100 10 inch (250 mm) sensing plate  
304 PTFE lined

**7MH7723-1LA**

WF100 4 inch (100 mm) sensing plate  
316 PTFE lined

**7MH7723-1LB**

WF100 6 inch (150 mm) sensing plate  
316 PTFE lined

**7MH7723-1LC**

WF100 8 inch (200 mm) sensing plate  
316 PTFE lined

**7MH7723-1LD**

WF100 10 inch (250 mm) sensing plate  
316 PTFE lined

**7MH7723-1LE**

WF100 4 inch (100 mm) sensing plate  
304 polyurethane lined

**7MH7723-1LF**

WF100 6 inch (150 mm) sensing plate  
304 polyurethane lined

**7MH7723-1LG**

WF100 8 inch (200 mm) sensing plate  
304 polyurethane lined

**7MH7723-1LH**

WF100 10 inch (250 mm) sensing plate  
304 polyurethane lined

**7MH7723-1LJ**

WF100 4 inch (100 mm) sensing plate  
316 polyurethane lined

**7MH7723-1LK**

WF100 6 inch (150 mm) sensing plate  
316 polyurethane lined

**7MH7723-1LL**

WF100 8 inch (200 mm) sensing plate  
316 polyurethane lined

**7MH7723-1LM**

WF100 10 inch (250 mm) sensing plate  
316 polyurethane lined

**7MH7723-1LN**

WF100 load cell spare 2 lb

**7MH7723-1LP**

WF100 load cell spare 5 lb

**7MH7723-1LQ**

WF100 load cell spare 10 lb

**7MH7723-1LR**

WF100 load cell spare 20 lb

**7MH7723-1LS**

WF100 load cell spare 2 lb CSA, FM, ATEX, IEC Ex

**7MH7725-1EU**

WF100 load cell spare 5 lb CSA, FM, ATEX, IEC Ex

**7MH7725-1EV**

WF100 load cell spare 10 lb CSA, FM, ATEX,  
IEC Ex

**7MH7725-1EW**

WF100 load cell spare 20 lb CSA, FM, ATEX,  
IEC Ex

**7MH7725-1EX**

WF calibration pulley with hardware and cable spare

**7MH7723-1LT**

1) Available with fabrication options A to E and sensing plate options 10 to 15 only

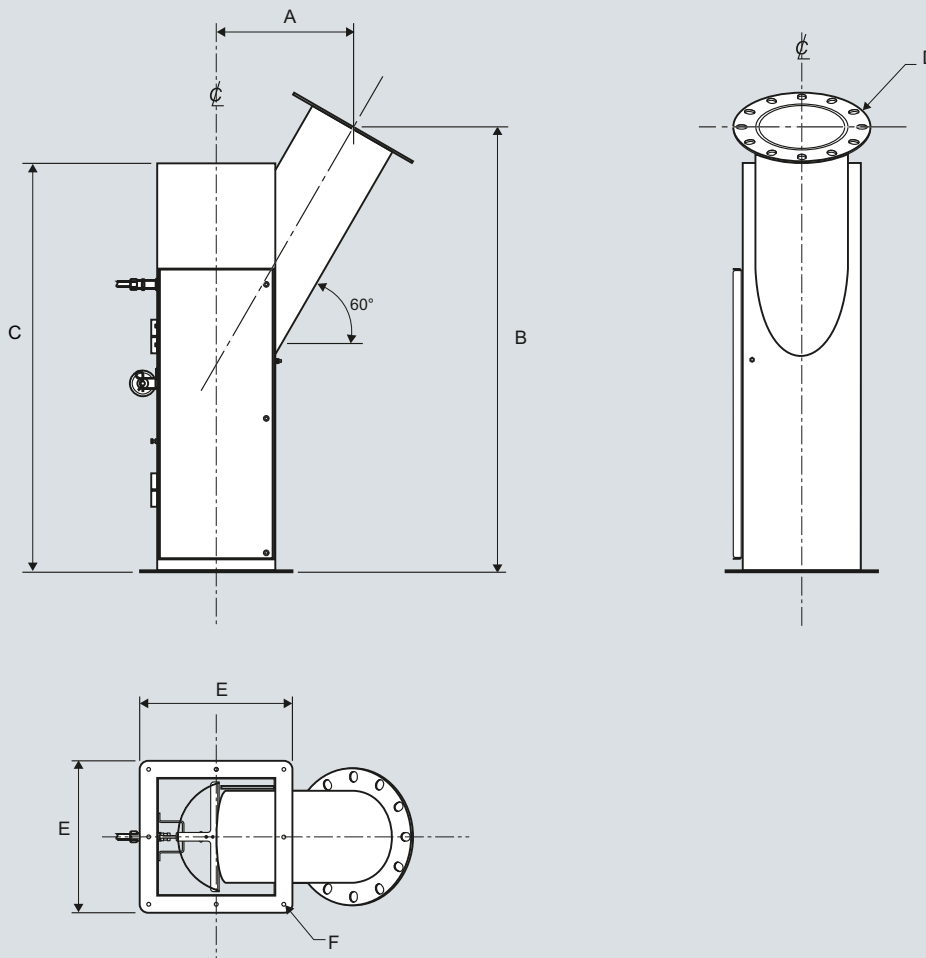
2) Available with fabrication options F to K and sensing plate options 20 to 25 only

3) Available with fabrication options L to Q and sensing plate options 30 to 35 only

4) Available with fabrication options R to V and sensing plate options 40 to 45 only

C) Subject to export regulations AL: N, ECCN: EAR99.

### Dimensional drawings



WF100 dimensions

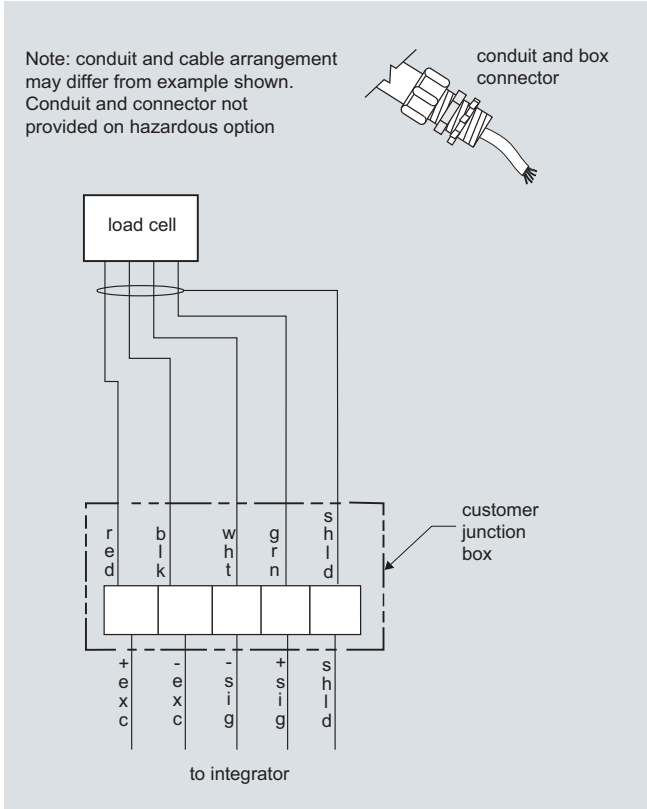
	A	B	C	D (flange)	E	F (8 places)
<b>4 inch (100 mm)</b>	8 inch (203.2 mm)	23.5 inch (596.9 mm)	21.87 inch (555.5 mm)	Ø ASME 4 inch DIN 100 mm	11.25 inch (285.8 mm)	Ø 0.43 inch (11 mm)
<b>6 inch (150 mm)</b>	10 inch (254 mm)	33 inch (838.2 mm)	31.12 inch (790.4 mm)	Ø ASME 6 inch DIN 150 mm	13.35 inch (339.1 mm)	Ø 0.43 inch (11 mm)
<b>8 inch (200 mm)</b>	14 inch (355.6 mm)	46 inch (1168.4 mm)	42.62 inch (1082.5 mm)	Ø ASME 8 inch DIN 200 mm	16.5 inch (419.1 mm)	Ø 0.43 inch (11 mm)
<b>10 inch (250 mm)</b>	16 inch (406.4 mm)	52 inch (1320.8 mm)	48.74 inch (1238.1 mm)	Ø ASME 10 inch DIN 250 mm	19 inch (482.6 mm)	Ø 0.43 inch (11 mm)

# Solids Flowmeters

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### SITRANS WF100

#### Schematics



WF100 connections