

# Flow Measurement

## SITRANS F S Clamp-on

### Ultrasonic flowmeter SITRANS FS230 - Ordering data

Selection and Ordering data	Article No.	Ord. code
<b>SITRANS FS230 clamp-on flowmeter</b>	7ME372	
Click on the Article No. for the online configuration in the PIA Life Cycle Portal.		
<b>Transmitter model</b>		
No transmitter, external DSL only	0	
Transmitter FST030	3	
<b>Pipe material/temperature</b>		
Transmitter only - no sensor	0	
Steel (stainless steel, carbon steel), temperature range: best use < 80 °C (176 °F)	1	
Steel (stainless steel, carbon steel), temperature range: best use > 80 °C (176 °F)	2	
Plastic (PVC) (for liquid applications), temperature: -40 ... +121 °C (-40 ... 250 °F)	6	
Any material, temperature: -40 ... +121 °C (-40 ... 250 °F)	7	
Any material, very high temperature: -40 ... +230 °C (-40 ... 446 °F)	8	
<b>Pipe outer diameter range</b>		
Transmitter only - no sensor	A	
13 ... 19 mm (0.5 ... 0.75")	B	
19.3 ... 30.5 mm (0.76 ... 1.20")	C	
30.7 ... 50.8 mm (1.21 ... 2.00")	D	
51 ... 76 mm (2.01 ... 3.00")	E	
78 ... 127 mm (3.1 ... 5.0")	F	
129 ... 203 mm (5.1 ... 8.0")	G	
206 ... 305 mm (8.1 ... 12.0")	H	
307 ... 508 mm (12.1 ... 20.0")	J	
510 ... 813 mm (20.1 ... 32.0")	K	
815 ... 9144 mm (32.1 ... 360")	L	
<b>Pipe wall thickness range</b>		
Transmitter only - no sensor	A	
0.635 ... 1.016 mm (0.025 ... 0.04")	B	
1.016 ... 1.524 mm (0.04 ... 0.06")	C	
1.524 ... 2.032 mm (0.06 ... 0.08")	D	
2.032 ... 3.048 mm (0.08 ... 0.12")	E	
3.048 ... 4.064 mm (0.12 ... 0.16")	F	
4.064 ... 5.842 mm (0.16 ... 0.23")	G	
5.842 ... 8.128 mm (0.23 ... 0.32")	H	
8.128 ... 11.176 mm (0.32 ... 0.44")	J	
11.176 ... 15.748 mm (0.44 ... 0.62")	K	
15.748 ... 31.75 mm (0.62 ... 1.25")	L	
31.75 ... 50.8 mm (1.25 ... 2.00")	M	
<b>Sensor mounting</b>		
Transmitter only - no sensor	0	
Mounting straps only	1	
Standard frames and tracks	2	
Magnetic - no straps	4	
Magnetic - with straps	6	
High precision mount (single enclosure)	7	
High precision mount (dual enclosure)	8	
<b>Number of paths (sensor pairs)</b>		
Transmitter only - no sensor	0	
One path	1	
Two path	2	
<b>Environment</b>		
Standard	1	

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<b>SITRANS FS230 clamp-on flowmeter</b>	7ME372 - - - - -	
<b>Transmitter/DSL material and mounting style</b> Wallmount transmitter, internal DSL, transmitter: aluminum wallbox, NEMA 4X, DSL: none, direct connected sensor cables, (max 2-path, max. 20 meter sensor cable)		U
<b>Ex approvals</b> Non-Ex ATEX, wallbox enclosure FM, wallbox enclosure FMc, wallbox enclosure ATEX, IECEx, FM, FMc, wallbox		A B G L P
<b>Local User Interface</b> Blind version transmitter Graphical local user interface, 240 x 160 pixels		1 3

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Selection and Ordering data	Order code	Selection and Ordering data	Order code
<b>Further designs</b>		Ex Passive	
Please add <b>"-Z"</b> to Article No. and specify Order code(s).		• Ch2: current/freq./pulse, Ch3: none, Ch4: none	<b>F21</b>
<b>Cable glands - transmitter, DSL (not for sensor cables)</b>		• Ch2: current/freq./pulse, Ch3: current/freq./pulse Ch4: None	<b>F22</b>
No glands, metric threads on transmitter	<b>A01</b>	• Ch2:current/freq./pulse, Ch3: current/freq./pulse Ch4:current/freq./pulse	<b>F23</b>
No glands, metric thread with NPT thread adapters, stainless steel: quantity based on selection "U" in data place 14	<b>A60</b>	• Ch2: current/freq./pulse, Ch3: current/freq./pulse Ch4: relay	<b>F24</b>
No glands, metric thread with NPT thread adapters, nickel plated brass: quantity based on selection "U" in data place 14	<b>A61</b>	• Ch2: current/freq./pulse, Ch3: relay, Ch4: relay	<b>F25</b>
Nickel plated brass glands: quantity based on selection "U" in data place 14	<b>A62</b>	• Ch2: current/freq./pulse, Ch3: relay, Ch4: none	<b>F26</b>
Plastic glands: quantity based on selection "U" in data place 14	<b>A64</b>	<b>Temperature sensors and pockets</b>	
Stainless steel glands: quantity based on selection "U" in data place 14	<b>A66</b>	1000 Ω platinum standard clamp-on RTD	<b>J61</b>
<b>Software functions and CT approvals</b>		1000 Ω platinum submersible clamp-on RTD	<b>J62</b>
Software: for standard industry applications	<b>B11</b>	<b>Sensor to transmitter cables</b>	
Software including hydrocarbon process values	<b>B39</b>	10 m (32.8 ft) standard/submersible coax sensor cable pair with nylon glands	<b>K24</b>
<b>I/O configuration Ch1</b>		20 m (65.6 ft) standard/submersible coax sensor cable pair with nylon glands	<b>K25</b>
Non-Ex, 4 ... 20 mA HART, menu selected pas- sive/active	<b>E02</b>	10 m (32.8 ft) standard/submersible coax sensor cable pair with nickel plated brass glands	<b>K29</b>
Ex, 4 ... 20 mA HART, active	<b>E06</b>	20 m (65.6 ft) standard/submersible coax sensor cable pair with nickel plated brass glands	<b>K30</b>
Ex, 4 ... 20 mA HART, passive	<b>E07</b>	10 m (32.8 ft) standard/submersible coax sensor cable pair with stainless steel glands	<b>K34</b>
Modbus RTU 485	<b>E14</b>	20 m (65.6 ft) standard/submersible coax sensor cable pair with stainless steel glands	<b>K35</b>
<b>I/O configuration Ch2, Ch3 and Ch4</b>		20 m (65.6 ft) plenum rated coax sensor cable pair with nylon glands	<b>K37</b>
None	<b>F00</b>	20 m (65.6 ft) plenum rated coax sensor cable pair with nickel plated brass glands	<b>K39</b>
Non-Ex		20 m (65.6 ft) plenum rated coax sensor cable pair with stainless steel glands	<b>K41</b>
• Ch2: current/freq./pulse, Ch3: none Ch4: none. Active/passive menu selected	<b>F01</b>	10 m (32.8 ft) armored sensor cable pair with nickel plated brass glands	<b>K53</b>
• Ch2: current/freq./pulse, Ch3: current/freq./pulse Ch4: none. Active/passive menu selected	<b>F02</b>	20 m (65.6 ft) armored sensor cable pair with nickel plated brass glands	<b>K54</b>
• Ch2:current/freq./pulse, Ch3: current/freq./pulse Ch4:current/freq./pulse. Active/passive menu selected	<b>F03</b>		
• Ch2:current/freq./pulse, Ch3: current/freq./pulse Ch4: relay. Active/passive menu selected	<b>F04</b>		
• Ch2: current/freq./pulse, Ch3: relay Ch4: relay. Active/passive menu selected	<b>F05</b>		
• Ch2: current/freq./pulse, Ch3: relay Ch4: none. Active/passive menu selected	<b>F06</b>		
Ex Active			
• Ch2: current/freq./pulse, Ch3: none Ch4: none	<b>F11</b>		
• Ch2: current/freq./pulse, Ch3: current/freq./pulse Ch4: none	<b>F12</b>		
• Ch2: current/freq./pulse, Ch3: current/freq./pulse Ch4: current/freq./pulse	<b>F13</b>		
• Ch2: current/freq./pulse, Ch3: current/freq./pulse, Ch4: relay	<b>F14</b>		
• Ch2: current/freq./pulse, Ch3: relay, Ch4: relay	<b>F15</b>		
• Ch2: current/freq./pulse, Ch3: relay, Ch4: none	<b>F16</b>		

Selection and Ordering data	Order code
<b>RTD cable (clamp temperature sensor to transmitter)</b>	
6 m (20 ft) standard RTD cable	<b>R50</b>
15 m (50 ft) standard RTD cable	<b>R51</b>
30 m (100 ft) standard RTD cable	<b>R52</b>
46 m (150 ft) standard RTD cable	<b>R53</b>
61 m (200 ft) standard RTD cable	<b>R54</b>
91 m (300 ft) standard RTD cable	<b>R55</b>
6 m (20 ft) submersible RTD cable	<b>R56</b>
15 m (50 ft) submersible RTD cable	<b>R57</b>
30 m (100 ft) submersible RTD cable	<b>R58</b>
46 m (150 ft) submersible RTD cable	<b>R59</b>
61 m (200 ft) submersible RTD cable	<b>R60</b>
91 m (300 ft) submersible RTD cable	<b>R61</b>
<b>RTD cable (insert temperature sensor to transmitter)</b>	
15 m (50 ft) RTD cable with nickel plated gland	<b>R74</b>
15 m (50 ft) RTD cable with stainless steel gland	<b>R75</b>
30 m (100 ft) RTD cable with nickel plated gland	<b>R76</b>
30 m (100 ft) RTD cable with stainless steel gland	<b>R77</b>
91 m (300 ft) RTD cable with nickel plated gland	<b>R78</b>
91 m (300 ft) RTD cable with stainless steel gland	<b>R79</b>
15 m (50 ft) insert RTD cable with nickel plated gland	<b>R80</b>
15 m (50 ft) insert RTD cable with stainless steel gland	<b>R81</b>
30 m (100 ft) insert RTD cable with nickel plated gland	<b>R82</b>
30 m (100 ft) insert RTD cable with stainless steel gland	<b>R83</b>
91 m (300 ft) insert RTD cable with nickel plated gland	<b>R84</b>
91 m (300 ft) insert RTD cable with stainless steel gland	<b>R85</b>
<b>Mass storage</b>	
Enable mass storage function for SD card (not available for USA)	<b>S30</b>
<b>Tag plate</b>	
Tag plate for transmitter, stainless steel	<b>Y15</b>
Tag name plate, stainless steel	<b>Y17</b>

## Flow Measurement

### SITRANS F S Clamp-on

#### Ultrasonic flowmeter SITRANS FS230 - Accessories/Spare parts

Selection and Ordering data	Article No.
<b>System spare parts</b>	
<b>Tool kits and loose parts</b> "F" connector tool kit, 2 per Bag of loose spare parts; for wallmount, including cable strain relief components, mounting tool, seals and gasket, assorted screws and washers, hex cap nut, blind plugs, and O-rings	<b>A5E38145699</b> <b>A5E38288072</b>
<b>Electronics assemblies and modules</b>	
Wall box <ul style="list-style-type: none"> <li>• Display and keypad assembly</li> <li>• Digital Sensor Link (DSL), internal, for wall box</li> <li>• SensorFlash (4 GB micro SD card) -40 °C ... +85 °C</li> <li>• Power supply, for wall box, (240 V AC, 47 ... 63 Hz), (24 ... 90 V DC)</li> <li>• Foam insert for wall box with connectors</li> </ul>	<b>A5E37697615</b> <b>A5E38014726</b> <b>A5E38288507</b> <b>A5E38263021</b> <b>A5E38287828</b>
<b>Cassettes, I/O configuration and communication</b>	
Ex <ul style="list-style-type: none"> <li>• Ch1: I/O and comm (active) 4 ... 20 mA output and HART 7.2</li> <li>• Ch1: I/O and comm (passive) 4 ... 20 mA output and HART 7.2</li> <li>• Ch1: communication Modbus RTU 485</li> </ul>	<b>A5E38012278</b> <b>A5E38013025</b> <b>A5E38013054</b>
Non Ex <ul style="list-style-type: none"> <li>• Ch1: I/O and comm (active/passive) 4 ... 20 mA output and HART 7.2</li> <li>• Ch1: communication Modbus RTU 485</li> <li>• Ch2: current/freq./pulse, Ch3: None Ch4: none. Menu select active/passive</li> <li>• Ch2: current/freq./pulse, Ch3: current/freq./pulse Ch4: none. Menu select active/passive</li> <li>• Ch2: current/freq./pulse, Ch3: current/freq./pulse Ch4: current/Freq./Pulse. Menu select active/passive</li> <li>• Ch2: current/freq./pulse, Ch3: current/freq./pulse Ch4: relay. Menu select active/passive</li> <li>• Ch2: current/freq./pulse, Ch3: relay Ch4: relay. Menu select active/passive</li> <li>• Ch2: current/freq./pulse, Ch3: relay Ch4: none. Menu select active/passive</li> </ul>	<b>A5E38013040</b> <b>A5E38013069</b> <b>A5E38006256</b> <b>A5E38006558</b> <b>A5E38006598</b> <b>A5E38006896</b> <b>A5E38006900</b> <b>A5E38011432</b>
Ex Passive <ul style="list-style-type: none"> <li>• Ch2: current/freq./pulse, Ch3: None Ch4: none</li> <li>• Ch2: current/freq./pulse, Ch3: current/freq./pulse Ch4: none</li> <li>• Ch2: current/freq./pulse, Ch3: current/freq./pulse Ch4: current/freq./pulse</li> <li>• Ch2: current/freq./pulse, Ch3: current/freq./pulse Ch4: relay</li> <li>• Ch2: current/freq./pulse, Ch3: relay Ch4: relay</li> <li>• Ch2: current/freq./pulse, Ch3: relay Ch4: none</li> </ul>	<b>A5E38012039</b> <b>A5E38012056</b> <b>A5E38012121</b> <b>A5E38019235</b> <b>A5E38019263</b> <b>A5E38019378</b>
Ex Active <ul style="list-style-type: none"> <li>• Ch2: current/freq./pulse, Ch3: none Ch4: none</li> <li>• Ch2: current/freq./pulse, Ch3: current/freq./pulse Ch4: none</li> <li>• Ch2: current/freq./pulse, Ch3: current/freq./pulse Ch4: current/freq./pulse</li> <li>• Ch2: current/freq./pulse, Ch3: current/freq./pulse Ch4: relay</li> <li>• Ch2: current/freq./pulse, Ch3: relay Ch4: relay</li> <li>• Ch2: current/freq./pulse, Ch3: relay Ch4: none</li> </ul>	<b>A5E38011478</b> <b>A5E38011509</b> <b>A5E38011541</b> <b>A5E38011600</b> <b>A5E38011618</b> <b>A5E38011908</b>
<b>Miscellaneous parts</b>	
Wall bracket "pipe mounting" Wall bracket "panel mounting" Metal kit: PSU cover, back plane Power input cover plate Blind plug brass-nickel 10 pcs (Ex version) Blind plug stainless steel 10 pcs (Ex version) F connectors, 4 pcs	<b>A5E38288020</b> <b>A5E38288032</b> <b>A5E38415145</b> <b>A5E38415205</b> <b>A5E38145685</b> <b>A5E38145689</b> <b>A5E38268608</b>

## Article No./Sensor Crossreference

Steel (T1)			Steel (T2)			Plastic (liquid)		
Data place 8,9,10 of 7ME372-... combination	Sensor part number	Sensor Size Code	Data place 8,9,10 of 7ME372-... combination	Sensor part number	Sensor Size Code	Data place 8,9,10 of 7ME372-... combination	Sensor part number	Sensor Size Code
1BB	7ME3950-5LG01	A1HT1	2BB	7ME3950-5LB11	A1	6BB	7ME3950-5LB01	A2
1BC	7ME3950-5LH01	A2HT1	2BC	7ME3950-5LB01	A2	6BC	7ME3950-5LB01	A2
1BD	7ME3950-5LB11	A1	2BD	7ME3950-5LB11	A1	6BD	7ME3950-5LB01	A2
1BE	7ME3950-5LB01	A2	2BE	7ME3950-5LB01	A2	6BE	7ME3950-5LB01	A2
1BF	7ME3950-5LB11	A1	2BF	7ME3950-5LB11	A1	6BF	7ME3950-5LB01	A2
1CB	7ME3950-5LG01	A1HT1	2CB	7ME3950-5LB11	A1	6CB	7ME3950-5LB01	A2
1CC	7ME3950-5LH01	A2HT1	2CC	7ME3950-5LB01	A2	6CC	7ME3950-5LB01	A2
1CD	7ME3950-5LJ01	A3HT1	2CD	7ME3950-5LB11	A1	6CD	7ME3950-5LB01	A2
1CE	7ME3950-5GK01	B1HT1	2CE	7ME3950-5GK21	B1HT2	6CE	7ME3950-5LB01	A2
1CF	7ME3950-5LB11	A1	2CF	7ME3950-5LB11	A1	6CF	7ME3950-5LB01	A2
1CG	7ME3950-5LB11	A1	2CG	7ME3950-5LB11	A1	6CG	7ME3950-5LB01	A2
1DB	7ME3950-5LG01	A1HT1	2DB	7ME3950-5LC11	B1	6DC	7ME3950-5LC01	B3
1DC	7ME3950-5LH01	A2HT1	2DC	7ME3950-5LC21	B2	6DD	7ME3950-5LC01	B3
1DD	7ME3950-5LJ01	A3HT1	2DD	7ME3950-5LC11	B1	6DE	7ME3950-5LC01	B3
1DE	7ME3950-5GK01	B1HT1	2DE	7ME3950-5GK21	B1HT2	6DF	7ME3950-5LC01	B3
1DF	7ME3950-5GL01	B2HT1	2DF	7ME3950-5GL21	B2HT2	6DG	7ME3950-5LC01	B3
1DG	7ME3950-5LC01	B3	2DG	7ME3950-5LC01	B3	6DH	7ME3950-5LC01	B3
1DH	7ME3950-5LC21	B2	2DH	7ME3950-5LC21	B2	6EC	7ME3950-5LC01	B3
1EB	7ME3950-5LG01	A1HT1	2EB	7ME3950-5LC11	B1	6ED	7ME3950-5LC01	B3
1EC	7ME3950-5LH01	A2HT1	2EC	7ME3950-5LC21	B2	6EE	7ME3950-5LC01	B3
1ED	7ME3950-5LJ01	A3HT1	2ED	7ME3950-5LC11	B1	6EF	7ME3950-5LC01	B3
1EE	7ME3950-5GK01	B1HT1	2EE	7ME3950-5GK21	B1HT2	6EG	7ME3950-5LC01	B3
1EF	7ME3950-5GL01	B2HT1	2EF	7ME3950-5GL21	B2HT2	6EH	7ME3950-5LC01	B3
1EG	7ME3950-5GM00	C1HT1	2EG	7ME3950-5GM20	C1HT2	6EJ	7ME3950-5LC01	B3
1EH	7ME3950-5GN00	C2HT1	2EH	7ME3950-5GN20	C2HT2	6EK	7ME3950-5LC01	B3
1EJ	7ME3950-5LC01	B3	2EJ	7ME3950-5LC01	B3	6FE	7ME3950-5LD00	C3
1EK	7ME3950-5LC01	B3	2EK	7ME3950-5LC01	B3	6FF	7ME3950-5LD00	C3
1FC	7ME3950-5LH01	A2HT1	2FC	7ME3950-5LD10	C1	6FG	7ME3950-5LD00	C3
1FD	7ME3950-5LJ01	A3HT1	2FD	7ME3950-5LD10	C1	6FH	7ME3950-5LD00	C3
1FE	7ME3950-5GK01	B1HT1	2FE	7ME3950-5GK21	B1HT2	6FJ	7ME3950-5LD00	C3
1FF	7ME3950-5GL01	B2HT1	2FF	7ME3950-5GL21	B2HT2	6FK	7ME3950-5LD00	C3
1FG	7ME3950-5GM00	C1HT1	2FG	7ME3950-5GM20	C1HT2	6GF	7ME3950-5LD00	C3
1FH	7ME3950-5GN00	C2HT1	2FH	7ME3950-5GN20	C2HT2	6GG	7ME3950-5LD00	C3
1FJ	7ME3950-5GP00	D1HT1	2FJ	7ME3950-5GP20	D1HT2	6GH	7ME3950-5LD00	C3
1FK	7ME3950-5LD10	C1	2FK	7ME3950-5LD10	C1	6GJ	7ME3950-5LD00	C3
1GD	7ME3950-5LJ01	A3HT1	2GD	7ME3950-5LD10	C1	6GK	7ME3950-5LD00	C3
1GE	7ME3950-5GK01	B1HT1	2GE	7ME3950-5GK21	B1HT2	6GL	7ME3950-5LD00	C3
1GF	7ME3950-5GL01	B2HT1	2GF	7ME3950-5GL21	B2HT2	6HG	7ME3950-5LE00	D3
1GG	7ME3950-5GM00	C1HT1	2GG	7ME3950-5GM20	C1HT2	6HH	7ME3950-5LE00	D3
1GH	7ME3950-5GN00	C2HT1	2GH	7ME3950-5GN20	C2HT2	6HJ	7ME3950-5LE00	D3
1GJ	7ME3950-5GP00	D1HT1	2GJ	7ME3950-5GP20	D1HT2	6HK	7ME3950-5LE00	D3
1GK	7ME3950-5GQ00	D2HT1	2GK	7ME3950-5GQ20	D2HT2	6HL	7ME3950-5LE00	D3
1GL	7ME3950-5LD00	C3	2GL	7ME3950-5LD00	C3	6HM	7ME3950-5LE00	D3
1HE	7ME3950-5GK01	B1HT1	2HE	7ME3950-5GK21	B1HT2	6JJ	7ME3950-5LE00	D3
1HF	7ME3950-5GL01	B2HT1	2HF	7ME3950-5GL21	B2HT2	6JK	7ME3950-5LE00	D3
1HG	7ME3950-5GM00	C1HT1	2HG	7ME3950-5GM20	C1HT2	6JL	7ME3950-5LE00	D3
1HH	7ME3950-5GN00	C2HT1	2HH	7ME3950-5GN20	C2HT2	6JM	7ME3950-5LE00	D3
1HJ	7ME3950-5GP00	D1HT1	2HJ	7ME3950-5GP20	D1HT2	6KK	7ME3950-5LF00	E2
1HK	7ME3950-5GQ00	D2HT1	2HK	7ME3950-5GQ20	D2HT2	6KL	7ME3950-5LF00	E2
1HL	7ME3950-5GR00	D4HT1	2HL	7ME3950-5GR20	D4HT2	6KM	7ME3950-5LF00	E2
1JG	7ME3950-5GM00	C1HT1	2JG	7ME3950-5GM20	C1HT2	6LM	7ME3950-5LF00	E2
1JH	7ME3950-5GN00	C2HT1	2JH	7ME3950-5GN20	C2HT2			
1JJ	7ME3950-5GP00	D1HT1	2JJ	7ME3950-5GP20	D1HT2			
1JK	7ME3950-5GQ00	D2HT1	2JK	7ME3950-5GQ20	D2HT2			
1JL	7ME3950-5GR00	D4HT1	2JL	7ME3950-5GR20	D4HT2			
1KH	7ME3950-5GN00	C2HT1	2KH	7ME3950-5GN20	C2HT2			
1KJ	7ME3950-5GP00	D1HT1	2KJ	7ME3950-5GP20	D1HT2			
1KK	7ME3950-5GQ00	D2HT1	2KK	7ME3950-5GQ20	D2HT2			
1KL	7ME3950-5GR00	D4HT1	2KL	7ME3950-5GR20	D4HT2			
1LJ	7ME3950-5GP00	D1HT1	2LJ	7ME3950-5GP20	D1HT2			
1LK	7ME3950-5GQ00	D2HT1	2LK	7ME3950-5GQ20	D2HT2			
1LL	7ME3950-5GR00	D4HT1	2LL	7ME3950-5GR20	D4HT2			



## Flow Measurement

### SITRANS F S Clamp-on

#### Ultrasonic flowmeter SITRANS FS230 - Accessories/Spare parts

Other (Univ)			Other (VH)		
Data place 8,9,10 of 7ME372-... combination	Sensor part number	Sensor Size Code	Data place 8,9,10 of 7ME372-... combination	Sensor part number	Sensor Size Code
7BB	7ME3950-5LB01	A2	8BB	7ME3950-5LA13	1
7BC	7ME3950-5LB01	A2	8BC	7ME3950-5LA13	1
7BD	7ME3950-5LB01	A2	8BD	7ME3950-5LA13	1
7BE	7ME3950-5LB01	A2	8BE	7ME3950-5LA13	1
7BF	7ME3950-5LB01	A2	8BF	7ME3950-5LA13	1
7CB	7ME3950-5LB01	A2	8CB	7ME3950-5LA13	1
7CC	7ME3950-5LB01	A2	8CC	7ME3950-5LA13	1
7CD	7ME3950-5LB01	A2	8CD	7ME3950-5LA13	1
7CE	7ME3950-5LB01	A2	8CE	7ME3950-5LA13	1
7CF	7ME3950-5LB01	A2	8CF	7ME3950-5LA13	1
7CG	7ME3950-5LB01	A2	8CG	7ME3950-5LA13	1
7DB	7ME3950-5LC01	B3	8DB	7ME3950-5LA13	1
7DC	7ME3950-5LC01	B3	8DC	7ME3950-5LA13	1
7DD	7ME3950-5LC01	B3	8DD	7ME3950-5LA13	1
7DE	7ME3950-5LC01	B3	8DE	7ME3950-5LA13	1
7DF	7ME3950-5LC01	B3	8DF	7ME3950-5LA13	1
7DG	7ME3950-5LC01	B3	8DG	7ME3950-5LA13	1
7DH	7ME3950-5LC01	B3	8DH	7ME3950-5LA13	1
7EB	7ME3950-5LC01	B3	8EB	7ME3950-5LA13	1
7EC	7ME3950-5LC01	B3	8EC	7ME3950-5LA13	1
7ED	7ME3950-5LC01	B3	8ED	7ME3950-5LA13	1
7EE	7ME3950-5LC01	B3	8EE	7ME3950-5LA13	1
7EF	7ME3950-5LC01	B3	8EF	7ME3950-5LA13	1
7EG	7ME3950-5LC01	B3	8EG	7ME3950-5LA13	1
7EH	7ME3950-5LC01	B3	8EH	7ME3950-5LA13	1
7EJ	7ME3950-5LC01	B3	8EJ	7ME3950-5LA13	1
7EK	7ME3950-5LC01	B3	8EK	7ME3950-5LA13	1
7FC	7ME3950-5LD00	C3	8FC	7ME3950-5LA23	2
7FD	7ME3950-5LD00	C3	8FD	7ME3950-5LA23	2
7FE	7ME3950-5LD00	C3	8FE	7ME3950-5LA23	2
7FF	7ME3950-5LD00	C3	8FF	7ME3950-5LA23	2
7FG	7ME3950-5LD00	C3	8FG	7ME3950-5LA23	2
7FH	7ME3950-5LD00	C3	8FH	7ME3950-5LA23	2
7FJ	7ME3950-5LD00	C3	8FJ	7ME3950-5LA23	2
7FK	7ME3950-5LD00	C3	8FK	7ME3950-5LA23	2
7GD	7ME3950-5LD00	C3	8GD	7ME3950-5LA23	2
7GE	7ME3950-5LD00	C3	8GE	7ME3950-5LA23	2
7GF	7ME3950-5LD00	C3	8GF	7ME3950-5LA23	2
7GG	7ME3950-5LD00	C3	8GG	7ME3950-5LA23	2
7GH	7ME3950-5LD00	C3	8GH	7ME3950-5LA23	2
7GJ	7ME3950-5LD00	C3	8GJ	7ME3950-5LA23	2
7GK	7ME3950-5LD00	C3	8GK	7ME3950-5LA23	2
7GL	7ME3950-5LD00	C3	8GL	7ME3950-5LA23	2
7HE	7ME3950-5LE00	D3	8HE	7ME3950-5LA43	3
7HF	7ME3950-5LE00	D3	8HF	7ME3950-5LA43	3
7HG	7ME3950-5LE00	D3	8HG	7ME3950-5LA43	3
7HH	7ME3950-5LE00	D3	8HH	7ME3950-5LA43	3
7HJ	7ME3950-5LE00	D3	8HJ	7ME3950-5LA43	3
7HK	7ME3950-5LE00	D3	8HK	7ME3950-5LA43	3
7HL	7ME3950-5LE00	D3	8HL	7ME3950-5LA43	3
7HM	7ME3950-5LE00	D3	8HM	7ME3950-5LA43	3
7JG	7ME3950-5LE00	D3	8JG	7ME3950-5LA43	3
7JH	7ME3950-5LE00	D3	8JH	7ME3950-5LA43	3
7JJ	7ME3950-5LE00	D3	8JJ	7ME3950-5LA43	3
7JK	7ME3950-5LE00	D3	8JK	7ME3950-5LA43	3
7JL	7ME3950-5LE00	D3	8JL	7ME3950-5LA43	3
7JM	7ME3950-5LE00	D3	8JM	7ME3950-5LA43	3
7KH	7ME3950-5LF00	E2	8KH	7ME3950-5LA73	4
7KJ	7ME3950-5LF00	E2	8KJ	7ME3950-5LA73	4
7KK	7ME3950-5LF00	E2	8KK	7ME3950-5LA73	4
7KL	7ME3950-5LF00	E2	8KL	7ME3950-5LA73	4
7KM	7ME3950-5LF00	E2	8KM	7ME3950-5LA73	4
7LJ	7ME3950-5LF00	E2	8LJ	7ME3950-5LA73	4
7LK	7ME3950-5LF00	E2	8LK	7ME3950-5LA73	4
7LL	7ME3950-5LF00	E2	8LL	7ME3950-5LA73	4
7LM	7ME3950-5LF00	E2	8LM	7ME3950-5LA73	4

### Ultrasonic flowmeter SITRANS FS230 - Accessories/Spare parts



Selection and Ordering data	Article No.	Selection and Ordering data	Article No.
<i>Spare parts (system)</i>		<i>Spare parts (system)</i>	
<b>SITRANS FS230</b> IP65/IP66 (NEMA 4X)	7ME 3 9 5 0 - 	<b>SITRANS FS230</b> IP65/IP66 (NEMA 4X)	7ME 3 9 5 0 - 
<b>Approvals</b>		<b>High temperature universal liquid sensors</b>	
All, FM/FMc, ATEX, IECEX - Flow sensors	5	Very high temperature up to 230 °C (446 °F)	
All, FM/FMc, ATEX, IECEX - Temperature sensors	1	• Size 1 (Ø 12.7 ... 100 mm (0.47 ... 3.94"))	5 LA 1 3
<b>Spare sensor code</b>		• Size 2 (Ø 30 ... 200 mm (1.18 ... 7.87"))	5 LA 2 3
For liquid flow sensors pipe ranges please refer to catalog sensor selection chart in the FSS200 section		• Size 2A (Ø 30 ... 200 mm (1.18 ... 7.87"))	5 LA 3 3
<b>Flow sensors for use with mounting frames or tracks</b>		• Size 3 (Ø 150 ... 610 mm (5.9 ... 24.0"))	5 LA 4 3
Suitable for pipes other than steel or stainless steel.		• Size 3A (Ø 150 ... 610 mm (5.9 ... 24.0"))	5 LA 6 3
Temperature -40 ... +121 °C (-40 ... +250 °F)		• Size 4 (Ø 400 ... 1200 mm (16.75 ... 47.24"))	5 LA 7 3
• A1 Universal	5 LB 1 1	• Size 4A (Ø 400 ... 1200 mm (16.75 ... 47.24"))	5 LA 8 3
• A2 Universal	5 LB 0 1	<b>Standard RTD temperature sensors</b>	
• B1 Universal	5 LC 1 1	Standard clamp-on RTD	1 TA 0 0
• B2 Universal	5 LC 2 1	Submersible clamp-on RTD	1 TB 0 0
• B3 Universal	5 LC 0 1	Insertion style RTD (size 1), 140 mm (5.5")	1 TJ 0 0
• C1 Universal	5 LD 1 0	Insertion style RTD (size 2), 216 mm (8.5")	1 TJ 0 1
• C2 Universal	5 LD 2 0	Insertion style RTD (size 3), 292 mm (11.5")	1 TJ 0 2
• C3 Universal	5 LD 0 0	Insertion style RTD (size 4), 368 mm (14.5")	1 TJ 0 3
• D1 Universal	5 LE 1 0		
• D2 Universal	5 LE 2 0		
• D3 Universal	5 LE 0 0		
• E1 Universal	5 LF 1 0		
• E2 Universal	5 LF 0 0		
• E3 Universal	5 LF 2 0		
<b>Gas and liquid sensors for use with mounting frames or tracks</b>			
Suitable for steel or stainless steel pipes			
Temperature T1			
• A1H high precision	5 LG 0 1		
• A2H high precision	5 LH 0 1		
• A3H high precision	5 LJ 0 1		
• B1H high precision	5 GK 0 1		
• B2H high precision	5 GL 0 1		
• B3H high precision	5 GT 0 1		
• C1H high precision	5 GM 0 0		
• C2H high precision	5 GN 0 0		
• D1H high precision	5 GP 0 0		
• D2H high precision	5 GQ 0 0		
• D3H high precision	5 GU 0 0		
• D4H high precision	5 GR 0 0		
Temperature T2			
• A1H high precision	5 LG 2 1		
• A2H high precision	5 LH 2 1		
• A3H high precision	5 LJ 2 1		
• B1H high precision	5 GK 2 1		
• B2H high precision	5 GL 2 1		
• B3H high precision	5 GT 2 1		
• C1H high precision	5 GM 2 0		
• C2H high precision	5 GN 2 0		
• D1H high precision	5 GP 2 0		
• D2H high precision	5 GQ 2 0		
• D3H high precision	5 GU 2 0		
• D4H high precision	5 GR 2 0		



## Flow Measurement

### SITRANS F S Clamp-on

#### Ultrasonic flowmeter SITRANS FS230 - Accessories/Spare parts

Selection and Ordering data	Article No.	Selection and Ordering data	Article No.
<i>Spare parts (Miscellaneous)</i>		<i>Spare parts (Miscellaneous)</i>	
<b>SITRANS F S Clamp-on</b>	7ME3960 - 	<b>SITRANS F S Clamp-on</b>	7ME3960 - 
➤ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.		Universal sensor size A or B	0MA00
		High precision sensor size A or B	0MB00
<b>FS230 dedicated sensor mounting hardware</b>		<b>Stainless mounting tracks for high temperature 991 sensors</b>	
Sensor mounting frames for		Size 1 high temperature sensor pair	CQO:992MTNHMSH-1
• Universal sensor size B (for pipes > 125 mm (5 inch))	CQO:1012FN-PB	Size 2 high temperature sensor pair	CQO:992MTNHMSH-2
• Universal sensor size C	0MC00	Size 3 high temperature sensor pair	CQO:992MTNHMSH-3
• Universal sensor size D	0MC01	Size 4 high temperature sensor pair	CQO:992MTNHMSH-4
• Universal sensor size E	0MC01		
• High precision sensor size B (For pipes > 125 mm (5 inch))	CQO:1012FNH-PB		
• High precision sensor size C	3MD00	<b>Clamp-on RTD mounting hardware for dedicated systems</b>	
• High precision sensor size D	3MD01	RTD mounting hardware for dedicated system	
• Magnetic mounting frames for size C, D, E, universal and high precision sensors	3MD02	• 1152 ... 610 mm (6 ... 24")	0MR00
		• 12.7 ... 50.8 mm (0.5 ... 2")	0MR01
<b>Spacer bars (for indexing sensors on pipe)</b>		• 31.8 ... 203.2 mm (1.25 ... 8")	0MR02
Spacer bar for pipes to 200 mm/8 inch (liquid), 600 mm/24 inch (gas)	3MS10	• 508 ... 1219 mm (20 ... 48")	0MR04
Spacer bar for pipes to 500 mm/20 inch (liquid), DN 1200/48 inch (gas)	3MS20	Junction box for clamp on RTD's	CQO:992ECJ
Spacer bar for pipes to 800 mm/32 inch (liquid)	3MS30	<b>Insert RTD thermowells</b>	
Spacer bar for pipes to 1200 mm/48 inch (liquid). Must be used with 7ME39600SM30	3MS40	Thermowell standard duty	
		• Uninsulated pipe 140 mm (5.5")	CQO:1012TW-1
<b>Mounting straps (slotted stainless steel)</b>		• Uninsulated pipe 216 mm (8.5")	CQO:1012TW-2
For pipes		• Uninsulated pipe: 292 mm (11.5")	CQO:1012TW-3
DN 50 ... DN 150	0SM00	• With lagging 140 mm (5.5")	CQO:1012TW-1L
DN 50 ... DN 300	0SM10	• With lagging 216 mm (8.5")	CQO:1012TW-2L
DN 300 ... DN 600	0SM20	• With lagging 292 mm (11.5")	CQO:1012TW-3L
DN 600 ... DN 1200	0SM30		
DN 1200 ... DN 1500	0SM40	<b>Sensor cables</b>	
DN 1500 ... DN 2100	0SM50	Coax (CE mark)	
DN 2100 ... DN 3000	0SM60	• 10 m (32.8 ft) armored sensor cable pair with nickel plated brass glands	A5E38028474004
		• 20 m (65.6 ft) armored sensor cable pair with nickel plated brass glands	A5E38028474005
<b>High precision mounting enclosures for sensors</b>		• 10 m (32.8 ft) standard/submersible Coax sensor cable pair with Nylon glands	A5E39669934004
Stainless steel mounts for high precision size "C" sensors, single enclosure	0WS50	• 20 m (65.6 ft) standard/submersible Coax sensor cable pair with Nylon glands	A5E39669934005
Stainless steel mounts for high precision size "D/E" sensors, single enclosure	0WS60	• 10 m (32.8 ft) standard/submersible Coax sensor cable pair with nickel plated brass glands	A5E39669934009
Stainless steel mounts for high precision size "C" sensors, dual enclosure	0WD50	• 20 m (65.6 ft) standard/submersible Coax sensor cable pair with nickel plated brass glands	A5E39669934010
Stainless steel mounts for high precision size "D/E" sensors, dual enclosure	0WD60	• 10 m (32.8 ft) standard/submersible Coax sensor cable pair with stainless steel glands	A5E39669934014
		• 20 m (65.6 ft) standard/submersible Coax sensor cable pair with stainless steel glands	A5E39669934015
<b>Stainless steel bands for high precision mounting enclosures</b>		• 20 m (65.6 ft) plenum rated Coax sensor cable pair with Nylon glands	A5E39669934020
Mounting strap for pipe diameter to		• 20 m (65.6 ft) plenum rated Coax sensor cable pair with nickel plated brass glands	A5E39669934025
• 300 mm (13")	0SM01	• 20 m (65.6 ft) plenum rated Coax sensor cable pair with stainless steel glands	A5E39669934030
• 600 mm (24")	0SM11		
• 1200 mm (48")	0SM21		
• 1500 mm (60")	0SM31		
• 2130 mm (84")	0SM41		
• 3050 mm (120")	0SM51		
• 5486 mm (216")	0SM61		
ADAPTER, MTG STRAP, TEMP COMP	CQO-1012WSM-A2		
<b>Sensor mounting tracks (aluminum with mounting straps) for pipes &lt; 125 mm (5 inch)</b>			

### Ultrasonic flowmeter SITRANS FS230 - Accessories/Spare parts

Selection and Ordering data	Article No.	Selection and Ordering data	Article No.
<i>Spare parts (Miscellaneous)</i>		<i>Spare parts (Miscellaneous)</i>	
<b>SITRANS F S Clamp-on</b>	<b>7ME 3 9 6 0 -</b>	<b>SITRANS F S Clamp-on</b>	<b>7ME 3 9 6 0 -</b>
<b>Cable glands and adapters</b>		<b>Universal sensor test blocks</b>	
Cable gland set M20, nylon	<b>A5E38145321</b>	Test block for size A and B universal sensors	<b>0 TB 1 0</b>
Cable gland set M20, nickel/brass	<b>A5E38145323</b>	Test block for size C and D universal sensors	<b>0 TB 2 0</b>
Cable gland set M20, stainless steel	<b>A5E38145327</b>	<b>Thickness gauge</b>	
Iris glands, set of 2, nickel plated brass	<b>A5E38635890</b>	Stand alone thickness gauge	<b>7ME39510TG20</b>
Iris glands, set of 2, stainless steel	<b>A5E38635986</b>		
M20xNPT adapters, set of 8, brass/nickel	<b>A5E38145635</b>		
M20xNPT adapters, set of 8, brass/nickel, Ex	<b>A5E38309159</b>		
M20xNPT adapters, set of 8, stainless steel	<b>A5E38145643</b>		
<b>RTD temperature sensor cables</b>			
6 m (20 ft) standard RTD cable	<b>0 CR 5 0</b>		
15 m (50 ft) standard RTD cable	<b>0 CR 5 1</b>		
30 m (100 ft) standard RTD cable	<b>0 CR 5 2</b>		
46 m (150 ft) standard RTD cable	<b>0 CR 5 3</b>		
61 m (200 ft) standard RTD cable	<b>0 CR 5 4</b>		
91 m (300 ft) standard RTD cable	<b>0 CR 5 5</b>		
6 m (20 ft) submersible RTD cable	<b>0 CR 5 6</b>		
15 m (50 ft) submersible RTD cable	<b>0 CR 5 7</b>		
30 m (100 ft) submersible RTD cable	<b>0 CR 5 8</b>		
46 m (150 ft) submersible RTD cable	<b>0 CR 5 9</b>		
61 m (200 ft) submersible RTD cable	<b>0 CR 6 0</b>		
91 m (300 ft) submersible RTD cable	<b>0 CR 6 1</b>		
<b>Dedicated cable termination kits for:</b>			
Standard, plenum sensor cable (NEMA 4X and NEMA 7 wall)	<b>0 CT 0 1</b>		
Submersible sensor cable (NEMA 4X and NEMA 7 wall)	<b>0 CT 1 1</b>		
Clamp-on RTD cable termination kit for standard RTD	<b>0 CT 2 1</b>		
Clamp-on RTD cable termination kit for submersible RTD	<b>0 CT 3 1</b>		
Insert RTD cable termination kit	<b>0 CT 4 1</b>		
Termination kit for armored cable	<b>CQO:1012CNFX-TK</b>		
<b>Ultrasonic couplants</b>			
Temporary water based for portable systems: 350 ml (12 oz): -34 ... +38 °C (-30 ... +100 °F)	<b>0 UC 1 0</b>		
Permanent synthetic polymer based: 90 ml (3 oz) -40 ... +190 °C (-40 ... +375 °F)	<b>0 UC 1 0</b>		
Dry coupling pad kit (10 pieces)	<b>0 UC 1 0</b>		
Permanent high temperature fluoroether: 163 ml (5.5 oz): -40 ... +230 °C (-40 ... +450 °F)	<b>0 UC 1 0</b>		
Permanent vulcanizing silicone rubber cou- plant: 90 ml (3 oz): -40...+120C (-40...+250F)	<b>CQO:CC112</b>		
Permanent high temperature silicone grease: 12 ml (0.4 oz): -40 ... +230 °C (-40 ... +450 °F)	<b>CQO:CC117B</b>		
Permanent high temperature silicone grease: 150 ml (5 oz): -40 ... +230 °C (-40 ... +450 °F)	<b>CQO:CC117A</b>		
Couplant for submersible sensor applications	<b>CQO:CC120</b>		
<b>Pipe damping films</b>			
B1, B2, B3, C1 and C2 sensors	<b>0 DM 1 0</b>		
D1 and D3 sensors	<b>0 DM 2 0</b>		
D2 sensor	<b>0 DM 3 0</b>		
D4 sensor	<b>0 DM 4 0</b>		