

#### Overview



The Coriolis flowmeter SITRANS FC410 consists of a SITRANS FCS400 sensor and a SITRANS FCT010 transmitter, always compact mounted. It is based on the latest developments within digital signal processing technology – engineered for high measuring performance:

- Fast response to rapid changes in flow
- High immunity against process noise and plant vibration with CompactCurve™ technology
- High turndown ratio of flowrates
- Suitable for liquid and gas service
- Simple to install, commission and maintain
- Short overall length; easy drop-in replacement into most existing installations
- Secure, digital transfer of measurement data from the flowmeter
- Fast data transfer – up to 115.2 kBit/s

The FCT010 transmitter provides Modbus RTU communication using RS 485 2-wire protocol and delivers true multi-parameter measurements: mass flow, volume flow, density and temperature.

The device is delivered with a SensorFlash micro SD card containing production data and all relevant certificates.

The flowmeter can be ordered for standard, hygienic or NAMUR service and is configured for direct integration into PLC or SCADA control systems. FC410 is ideally suited to machine builders and other OEM applications.

#### Benefits

##### Installation

- It is narrow and light, fitting neatly into dense piping arrangements
- Effective separation from plant vibration allows it to be installed on pumping skids
- Reliable measurements due to high signal to noise ratio allows tighter plant configurations – less separation needed from EMC noisy sources
- Agile byte configuration makes it easy to match the flowmeter to common practice Modbus devices.

#### Flow calculation and measurement

- Dedicated mass flow calculation with patented DSP technology
- Fast dosing and flow step response with maximum 10 ms response time
- Independent low flow cut-off settings for mass and volume flowrates
- Empty pipe monitoring

#### Alarms and safety

Advanced diagnosis enhances troubleshooting and meter validation.

#### Output

According to standard practice with serial communication the Modbus RTU signal reports primary process values and error status strictly with SI units<sup>1)</sup> – kilogram, meter, second and degree Celsius.

Conversion to other engineering units must therefore be performed within the host system once the data is received.

#### Approvals and certificates

The FC410 Coriolis flowmeter program was designed from the ground up to comply with or exceed the requirements of international standards and regulations. Approvals applying to FC410 are listed in the Technical Specifications.

<sup>1)</sup> 1 kg/s of water flow equals 0.001 m<sup>3</sup>/s of volume flow, and 3 600 kg/h.

#### Application

SITRANS FC410 mass flowmeters are suitable for applications within the entire process industry where there is a demand for accurate flow measurement. The meter is capable of measuring both liquid and gas flow. Applications involving pastes, emulsions, slurries and very high viscosity liquids (> 100 000 cP) should be evaluated together with Siemens Support.

Coriolis flowmeters can be applied in all industries, such as:

- Chemical & Pharma: detergents, bulk chemicals, acids, alkalis, pharmaceuticals, blood products, vaccines, insulin production
- Food & Beverage: dairy products, beer, wine, soft drinks, °Brix/°Plato, fruit juices and pulps, bottling, CO<sub>2</sub> dosing, CIP/SIP-liquids, mixture recipe control
- Automotive: filling of AC units, engine consumption monitoring
- Oil & Gas: filling of gas bottles, furnace control, test separators
- Hydrocarbon processing: oil refining, derivatives manufacturing, polymerization
- Water & Waste Water: dosing of chemicals for water treatment

# Flow Measurement

## SITRANS FC

### Flowmeter SITRANS FC410

#### Design

The transmitter SITRANS FCT010 is designed in an IP67/ NEMA 4X aluminum enclosure with corrosion resistant coating. It is compact mounted with any FCS400 sensor of size DN 15, DN 25, DN 50 or DN 80.

The Integrated Mini Transmitter insert can be replaced in the field by Siemens trained service technicians.

#### System cabling

The flowmeter is designed so that standard instrumentation cable with four cores and overall screen or two screened pairs can be used. Suitable cable sets can be ordered with the flowmeter. The cable can be ordered in various set lengths and terminated in the field.

The flowmeter requires 24 V DC  $\pm 20\%$  in operation. The complete system is insulation tested to 1 500 V in production.

The maximum design length for the sensor cable is 600 m (1 968 ft). Data transmission speed and process variable update rates may be affected by the cable characteristics. For best results, choose a cable with the following electrical characteristics:

Property	Unit	Value
Resistance	[ $\Omega$ /km]	59
Characteristic impedance	[W]	100 @ 1 MHz
Insulation resistance	[M $\Omega$ /km]	200
Maximum voltage	[V]	300

Cabling solutions which can be ordered with the flowmeter are as follows:

1. High performance plugged cable using M12 plugs into prepared sockets
2. Cable glands for either metric or NPT threaded terminal housings
3. Plain cable in set lengths to be passed through flexible and rigid conduit (not supplied) for metric or NPT threaded terminal housings

Cable for items 1, 2 and 3 are available either gray for standard applications or light blue for Ex applications to identify the circuit as intrinsically safe.

#### Extended calibration testing

Although the Coriolis flowmeter is inherently linear, in many applications it is useful to know the actual measuring error of the flowmeter at the application flowrate. While Siemens has many calibration facilities at hand in standard production, the extended calibration reports which can be ordered are all for the flowmeter being used with water at 20 °C, or reference conditions.

Calibrations offered for FC430 and FC410 flowmeters are spaced through the entire flow range at multiple points, across the lower range or across the higher. DANAK accredited certificates for flows spaced across the entire flow range may also be ordered.

The automated flow rigs are preprogrammed with the flows shown in the table below, depending upon the order option selected.

Option	Description	Flow points, % of $Q_{max}$									
		1	2	3	4	5	6	7	8	9	10
Y61	Multi-point High (5Fx2P)	100	100	75	75	50	50	25	25	10	10
Y63	Multi-point High (10Fx1P)	100	90	80	70	60	50	40	30	20	10
Y69	Multi-point Low (5Fx2P)	20	20	10	10	5	5	3	3	2	2
Y71	Multi-point Medium (5Fx2P)	50	50	35	35	20	20	10	10	5	5
Y72	Multi-point Low (10Fx1P)	20	15	12	10	8	6	5	4	3	2
Y73	Multi-point Medium (10Fx1P)	50	45	40	35	30	25	20	15	10	5

For flow calibration at reference conditions, the following  $Q_{max}$  flowrates apply:

DN 15: 3 600 kg/h

DN 25: 11 500 kg/h

DN 50: 50 000 kg/h

DN 80: 50 000 kg/h

#### Function

The following functions are available:

- Mass flowrate, volume flowrate, density, process temperature
- 1 built-in totalizer for net mass
- Bidirectional flow measurement
- Process noise filter for optimization of measurement performance under non-ideal application conditions. 5-stage pumping filter compensates for flow fluctuations caused by e.g. single acting piston pumps
- Automatic zero adjustment initiated via Modbus connection

#### Technical specifications

SITRANS FC410 employs the same sensors FCS400 as the FC430 flowmeter. The table below shows where there are differences owing to the different functions of the transmitter FCT010.

<b>Architecture</b>	Compact configuration without display
<b>Power Supply</b>	24 V DC
<b>Communication</b>	Modbus RTU, RS 485 2-wire plus 2-wire power
<b>Number of process variables</b>	4
<b>Measurement of</b>	<ul style="list-style-type: none"> <li>• Mass flow</li> <li>• Volume flow</li> <li>• Density</li> <li>• Process media temperature</li> </ul>
<b>Galvanic isolation</b>	All inputs and outputs are galvanically isolated, isolation voltage 500 V.
<b>Cut-off</b>	Independent for mass and volume flowrates
Low-flow	0...9.9 % of rated flow
<b>Totalizer</b>	One internal counter for net mass flow
<b>Zero point adjustment</b>	Via command from host system
<b>Ambient temperature</b>	
Operation	-40 ... +60 °C (-40 ... +140 °F) (humidity max. 95 %)
Storage	-40 ... +70 °C (-40 ... +158 °F) (humidity max. 95 %)
<b>Enclosure</b>	
Material	Aluminum
Rating	IP67/NEMA 4X to IEC 529 and DIN 40050 (1 mH <sub>2</sub> O for 30 min.)
Mechanical load	18 ... 1 000 Hz random, 3.17 g RMS, in all directions
<b>Supply voltage</b>	
Supply	24 V DC ±20%
Fluctuation	No limit
Power consumption	1.25 W
<b>EMC performance</b>	
Emission	EN/IEC 61000-6-4 (Industry)
Immunity	EN/IEC 61000-6-2 (Industry)
<b>NAMUR</b>	Within the value limits according to "General requirements" with error criteria A in accordance with NE 21
<b>Environment</b>	Within the value limits according to "General requirements" with alarm criteria A in accordance with NE 21
<b>Environmental conditions acc. to IEC/EN/UL 61010-1</b>	<ul style="list-style-type: none"> <li>• Altitude up to 2 000 m</li> <li>• Pollution degree 2</li> </ul>
<b>Cable glands</b>	<ul style="list-style-type: none"> <li>• M20</li> <li>• ½" NPT</li> </ul>
Available in Nylon, Nickel plated brass or stainless steel	

#### Approvals

Hazardous area (pending)

- ATEX Ex II 2(1) GD Ex d e [ia] ia IIC T6 Gb
- FM/CSA Class 1 Div. 1
- IEC Ex II 2(1) GD Ex d e [ia] ia IIC T6 Gb

Pressure equipment

- PED
- CRN

Hygienic applications

- EHEDG for all hygienic variant sensors
- 3A for hygienic variant sensors
- External cleanability satisfies EHEDG and 3A rules

#### Certificates

CE mark

- Pressure equipment
- Low voltage directive
- WEEE
- RoHS

Regional certifications

- C-TICK (Australia and New Zealand EMC)
- NEPSI (China Ex)
- INMETRO (Brazil Ex)

# Flow Measurement

## SITRANS FC

### Flowmeter SITRANS FC410

Selection and Ordering data	Article No.	Ord. code	Selection and Ordering data	Article No.	Ord. code
<b>SITRANS FC410 Digital coriolis flowmeter with SITRANS FCS400 Standard flow sensor with hygienic and flange/pipe thread connections and compact or remote mounting with FCT010 transmitter</b>	7 ME 4 6 1 1 -		<b>SITRANS FC410 Digital coriolis flowmeter with SITRANS FCS400 Standard flow sensor with hygienic and flange/pipe thread connections and compact or remote mounting with FCT010 transmitter</b>	7 ME 4 6 1 1 -	
<b>Sensor size, connection size</b>			<b>Transmitter/DSL material &amp; mounting style</b>		
DN 15, DN 6 (½", ¼")	3 E		Compact, IP67, aluminum	D	
DN 15, DN 10 (½", 3/8")	3 F		<b>Ex approval</b>		
DN 15, DN 15 (½", ½")	3 G		Non-Ex		A
DN 15, DN 20 (½", ¾")	3 H		ATEX II 2GD		C
DN 15, DN 25 (½", 1")	3 J		IECEX GDb		F
DN 25, DN 25 (1", 1")	3 L		FM, Class 1, Div 1		H
DN 25, DN 32 (1", 1¼")	3 M		CSA, Class 1, Zone 1		M
DN 25, DN 40 (1", 1½")	3 N		NEPSI, Class 1, Zone 1		N
DN 50, DN 40 (2", 1½")	4 B		INMETRO, Class 1, Zone 1		P
DN 50, DN 50 (2", 2")	4 C		KOSHA		T
DN 80, DN 65 (3", 2½")	4 J		<b>Local User Interface</b>		
DN 80, DN 80 (3", 3")	4 K		Blind		1
DN 80, DN 100 (3", 4")	4 L				
<b>Process connection</b>					
EN1092-1 B1, PN 16	A 0				
EN1092-1 B1, PN 40	A 1				
EN1092-1 B1, PN 63	A 2				
EN1092-1 B1, PN 100	A 3				
EN1092-1 D, PN 40	A 5				
EN1092-1 D, PN 63	A 6				
EN1092-1 D, PN 100	A 7				
EN1092-1 D, PN 160	A 8				
EN1092-1 B1, PN 160	B 1				
ANSI B16.5, RF, class 150	D 1				
ANSI B16.5, RF, class 300	D 2				
ANSI B16.5, RF, class 600	D 3				
ANSI B16.5, RF, class 900	D 4				
ISO 228-1 G pipe thread	E 1				
ASME B1.20.1 NPT pipe thread	E 3				
DIN 11851 hygienic screwed	F 1				
DIN 32676 hygienic clamped	G 1				
DIN 11864-1A aseptic screwed	H 1				
DIN 11864-2A aseptic flanged	H 2				
DIN 11864-3A aseptic clamped	H 3				
ISO 2852 hygienic clamped	J 1				
ISO 2853 hygienic screwed	J 5				
SMS 1145 hygienic screwed	K 1				
Swagelok quick connect	K 5				
JIS B2200/10K	L 2				
JIS B2220/20K	L 4				
JIS B2220/40K	L 6				
JIS B2220/63K	L 7				
<b>Wetted parts material</b>					
AISI 316L/W1.4435/W1.4404	1				
Hastelloy C22/W2.4602	3				
<b>Calibration/Accuracy class</b>					
0,1 % flow, 5 kg/m³ density		1			
0,1 % flow, 1 kg/m³ density		4			

Selection and Ordering data	Order code
<b>Further designs</b>	
Please add "-Z" to Article No. and specify Order code(s).	
<b>Cable glands</b>	
Metric, no glands	<b>A01</b>
Metric, plastic	<b>A02</b>
Metric, brass/Ni plated	<b>A05</b>
Metric, stainless steel	<b>A06</b>
NPT, no glands	<b>A11</b>
NPT, plastic	<b>A12</b>
NPT, brass/Ni plated	<b>A15</b>
NPT, stainless steel	<b>A16</b>
Integral M12 skt	<b>A20</b>
<b>Software functions and CT approvals</b>	
Standard	<b>B11</b>
<b>I/O configuration Ch1</b>	
Modbus RTU RS 485	<b>E14</b>
<b>I/O configuration Ch2, Ch3 and Ch4</b>	
None	<b>F00</b>
<b>Certificates</b>	
Pressure test certificate CRN	<b>C01</b>
Pressure test certificate PED	<b>C02</b>
Material certificate EN 10204-3.1	<b>C05</b>
<b>Cable</b>	
5 m (16.4 ft), standard with M12 plugs fitted	<b>L51</b>
5 m (16.4 ft), standard	<b>L52</b>
10 m (32.8 ft) standard with M12 plugs fitted	<b>L55</b>
10 m (32.8 ft), standard	<b>L56</b>
25 m (82 ft), standard with M12 plugs fitted	<b>L59</b>
25 m (82 ft), standard	<b>L60</b>
50 m (164 ft), standard with M12 plugs fitted	<b>L63</b>
50 m (164 ft), standard	<b>L64</b>
75 m (246 ft), standard with M12 plugs fitted	<b>L67</b>
75 m (246 ft), standard	<b>L68</b>
150 m (492 ft), standard with M12 plugs fitted	<b>L71</b>
150 m (492 ft), standard	<b>L72</b>
300 m (984 ft), standard with M12 plugs fitted	<b>L75</b>
300 m (984 ft), standard	<b>L76</b>
<b>Additional data</b>	
Please add "-Z" to Article No. and specify Order code(s) and plain text.	
<b>Tag name</b>	
Tag name plate, stainless steel	<b>Y17</b>
<b>Customer specific calibration</b>	
Multi-point High (5 flow x 2 points)	<b>Y61</b>
Multi-point High (10 flow x 1 point)	<b>Y63</b>
Multi-point Low (5 flow x 2 points)	<b>Y69</b>
Multi-point Medium (5 flow x 2 points)	<b>Y71</b>
Multi-point Low (10 flow x 1 point)	<b>Y72</b>
Multi-point Medium (10 flow x 1 point)	<b>Y73</b>

# Flow Measurement

## SITRANS FC

### Flowmeter SITRANS FC410

Selection and Ordering data	Article No.	Ord. code	Selection and Ordering data	Order code
<b>SITRANS FC410 Digital coriolis flowmeter with SITRANS FCS400 Hygienic version with Ra &lt; 0.8 µm, 3A approved, and compact or remote mounting with FCT010 transmitter</b>	7 ME 4 6 2 1 -		<b>Further designs</b> Please add "-Z" to Article No. and specify Order code(s).	
<b>Sensor size, connection size</b>			<b>Cable glands</b>	
DN 15, DN 10 (½", 3/8")	3 F		Metric, no glands	A01
DN 15, DN 15 (½", ½")	3 G		Metric, plastic	A02
DN 15, DN 20 (½", ¾")	3 H		Metric, brass/Ni plated	A05
DN 15, DN 25 (½", 1")	3 J		Metric, stainless steel	A06
DN 25, DN 25 (1", 1")	3 L		NPT, no glands	A11
DN 25, DN 32 (1", 1¼")	3 M		NPT, plastic	A12
DN 25, DN 40 (1", 1½")	3 N		NPT, brass/Ni plated	A15
DN 50, DN 40 (2", 1½")	4 B		NPT, stainless steel	A16
DN 50, DN 50 (2", 2")	4 C		Integral M12 skt	A20
DN 80, DN 65 (3", 2½")	4 J		<b>Software functions and CT approvals</b>	
DN 80, DN 80 (3", 3")	4 K		Standard	B11
<b>Process connection</b>			<b>I/O configuration Ch1</b>	
DIN 11851 hygienic screwed	F 1		Modbus RTU RS 485	E14
DIN 32676 hygienic clamped	G 1		<b>I/O configuration Ch2, Ch3 and Ch4</b>	
DIN 11864-1A aseptic screwed	H 1		None	F00
DIN 11864-2A aseptic flanged	H 2		<b>Certificates</b>	
DIN 11864-3A aseptic clamped	H 3		Pressure test certificate CRN	C01
ISO 2852 hygienic clamped	J 1		Pressure test certificate PED	C02
ISO 2853 hygienic screwed	J 5		Material certificate EN 10204-3.1	C05
<b>Wetted parts material</b>			<b>Cable</b>	
AISI 316L/W1.4435/W1.4404	1		5 m (16.4 ft), standard with M12 plugs fitted	L51
Hastelloy C22/W2.4602	3		5 m (16.4 ft), standard	L52
<b>Calibration/Accuracy class</b>			10 m (32.8 ft) standard with M12 plugs fitted	L55
0,1 % flow, 5 kg/m³ density	1		10 m (32.8 ft), standard	L56
0,1 % flow, 1 kg/m³ density	4		25 m (82 ft), standard with M12 plugs fitted	L59
<b>Transmitter/DSL material &amp; mounting style</b>			25 m (82 ft), standard	L60
Compact, IP67, aluminum	D		50 m (164 ft), standard with M12 plugs fitted	L63
<b>Ex approval</b>			50 m (164 ft), standard	L64
Non-Ex	A		75 m (246 ft), standard with M12 plugs fitted	L67
ATEX II 2GD	C		75 m (246 ft), standard	L68
IECEx GDb	F		150 m (492 ft), standard with M12 plugs fitted	L71
FM, Class 1, Div 1	H		150 m (492 ft), standard	L72
CSA, Class 1, Zone 1	M		300 m (984 ft), standard with M12 plugs fitted	L75
NEPSI, Class 1, Zone 1	N		300 m (984 ft), standard	L76
INMETRO, Class 1, Zone 1	P		<b>Additional data</b>	
KOSHA	T		Please add "-Z" to Article No. and specify Order code(s) and plain text.	
<b>Local User Interface</b>			<b>Tag name</b>	
Blind	1		Tag name plate, stainless steel	Y17
			<b>Customer specific calibration</b>	
			Multi-point High (5 flow x 2 points)	Y61
			Multi-point High (10 flow x 1 point)	Y63
			Multi-point Low (5 flow x 2 points)	Y69
			Multi-point Medium (5 flow x 2 points)	Y71
			Multi-point Low (10 flow x 1 point)	Y72
			Multi-point Medium (10 flow x 1 point)	Y73

Selection and Ordering data	Article No.	Ord. code	Selection and Ordering data	Article No.	Ord. code
<b>SITRANS FC410 Digital coriolis flowmeter with SITRANS FCS400 NAMUR compliant flow sensor with flange/pipe thread connections and compact or remote mounting with FCT010 transmitter</b>	7ME4711-		<b>SITRANS FC410 Digital coriolis flowmeter with SITRANS FCS400 NAMUR compliant flow sensor with flange/pipe thread connections and compact or remote mounting with FCT010 transmitter</b>	7ME4711-	
<b>Sensor size, connection size</b>			<b>Transmitter/DSL material &amp; mounting style</b>		
DN 15, DN 6 (½", ¼")	3E		Compact, IP67, aluminum	D	
DN 15, DN 10 (½", 3/8")	3F		<b>Ex approval</b>		
DN 15, DN 15 (½", ½")	3G		Non-Ex		A
DN 15, DN 20 (½", ¾")	3H		ATEX II 2GD		C
DN 15, DN 25 (½", 1")	3J		IECEx GDb		F
DN 25, DN 25 (1", 1")	3L		FM, Class 1, Div 1		H
DN 25, DN 32 (1", 1¼")	3M		CSA, Class 1, Zone 1		M
DN 25, DN 40 (1", 1½")	3N		NEPSI, Class 1, Zone 1		N
DN 50, DN 40 (2", 1½")	4B		INMETRO, Class 1, Zone 1		P
DN 50, DN 50 (2", 2")	4C		KOSHA		T
DN 80, DN 65 (3", 2½")	4J		<b>Local User Interface</b>		
DN 80, DN 80 (3", 3")	4K		Blind		1
DN 80, DN 100 (3", 4")	4L				
<b>Process connection</b>					
EN1092-1 B1, PN 16	A0				
EN1092-1 B1, PN 40	A1				
EN1092-1 B1, PN 63	A2				
EN1092-1 B1, PN 100	A3				
EN1092-1 D, PN 40	A5				
EN1092-1 D, PN 63	A6				
EN1092-1 D, PN 100	A7				
EN1092-1 D, PN 160	A8				
EN1092-1 B1, PN 160	B1				
ANSI B16.5, RF, class 150	D1				
ANSI B16.5, RF, class 300	D2				
ANSI B16.5, RF, class 600	D3				
ANSI B16.5, RF, class 900	D4				
ISO 228-1 G pipe thread	E1				
ASME B1.20.1 NPT pipe thread	E3				
DIN 11851 hygienic screwed	F1				
DIN 32676 hygienic clamped	G1				
DIN 11864-1A aseptic screwed	H1				
DIN 11864-2A aseptic flanged	H2				
DIN 11864-3A aseptic clamped	H3				
ISO 2852 hygienic clamped	J1				
ISO 2853 hygienic screwed	J5				
SMS 1145 hygienic screwed	K1				
Swagelok quick connect	K5				
JIS B2200/10K	L2				
JIS B2220/20K	L4				
JIS B2220/40K	L6				
JIS B2220/63K	L7				
<b>Wetted parts material</b>					
AISI 316L/W1.4435/W1.4404	1				
Hastelloy C22/W2.4602	3				
<b>Calibration/Accuracy class</b>					
0,1 % flow, 5 kg/m³ density		1			
0,1 % flow, 1 kg/m³ density		4			

# Flow Measurement

## SITRANS FC

### Flowmeter SITRANS FC410

Selection and Ordering data	Order code
<b>Further designs</b>	
Please add "-Z" to Article No. and specify Order code(s).	
<b>Cable glands</b>	
Metric, no glands	<b>A01</b>
Metric, plastic	<b>A02</b>
Metric, brass/Ni plated	<b>A05</b>
Metric, stainless steel	<b>A06</b>
NPT, no glands	<b>A11</b>
NPT, plastic	<b>A12</b>
NPT, brass/Ni plated	<b>A15</b>
NPT, stainless steel	<b>A16</b>
Integral M12 skt	<b>A20</b>
<b>Software functions and CT approvals</b>	
Standard	<b>B11</b>
<b>I/O configuration Ch1</b>	
Modbus RTU RS 485	<b>E14</b>
<b>I/O configuration Ch2, Ch3 and Ch4</b>	
None	<b>F00</b>
<b>Certificates</b>	
Pressure test certificate CRN	<b>C01</b>
Pressure test certificate PED	<b>C02</b>
Material certificate EN 10204-3.1	<b>C05</b>
<b>Cable</b>	
5 m (16.4 ft), standard with M12 plugs fitted	<b>L51</b>
5 m (16.4 ft), standard	<b>L52</b>
10 m (32.8 ft) standard with M12 plugs fitted	<b>L55</b>
10 m (32.8 ft), standard	<b>L56</b>
25 m (82 ft), standard with M12 plugs fitted	<b>L59</b>
25 m (82 ft), standard	<b>L60</b>
50 m (164 ft), standard with M12 plugs fitted	<b>L63</b>
50 m (164 ft), standard	<b>L64</b>
75 m (246 ft), standard with M12 plugs fitted	<b>L67</b>
75 m (246 ft), standard	<b>L68</b>
150 m (492 ft), standard with M12 plugs fitted	<b>L71</b>
150 m (492 ft), standard	<b>L72</b>
300 m (984 ft), standard with M12 plugs fitted	<b>L75</b>
300 m (984 ft), standard	<b>L76</b>
<b>Additional data</b>	
Please add "-Z" to Article No. and specify Order code(s) and plain text.	
<b>Tag name</b>	
Tag name plate, stainless steel	<b>Y17</b>
<b>Customer specific calibration</b>	
Multi-point High (5 flow x 2 points)	<b>Y61</b>
Multi-point High (10 flow x 1 point)	<b>Y63</b>
Multi-point Low (5 flow x 2 points)	<b>Y69</b>
Multi-point Medium (5 flow x 2 points)	<b>Y71</b>
Multi-point Low (10 flow x 1 point)	<b>Y72</b>
Multi-point Medium (10 flow x 1 point)	<b>Y73</b>








# Flow Measurement

## SITRANS FC

### SITRANS FC410 Accessories/Spare parts

#### Accessories

Description	Article No.	
Standard cable (non-Ex) with M12 plugs, PO insulation and PUR sleeve, gray, -40 ... +80 °C (-40 ... +176 °F)		
• 5 m (16.4 ft)	<b>A5E03914805</b>	
• 10 m (32.8 ft)	<b>A5E03914850</b>	
• 25 m (82 ft)	<b>A5E03914853</b>	
• 50 m (164 ft)	<b>A5E03914859</b>	
• 75 m (246 ft)	<b>A5E03914861</b>	
• 150 m (492 ft)	<b>A5E03914874</b>	
Standard cable (non-Ex) for termination, PO insulation and PUR sleeve, gray, -40 ... +80 °C (-40 ... +176 °F)		
• 5 m (16.4 ft)	<b>A5E03914833</b>	
• 10 m (32.8 ft)	<b>A5E03914849</b>	
• 25 m (82 ft)	<b>A5E03914854</b>	
• 50 m (164 ft)	<b>A5E03914856</b>	
• 75 m (246 ft)	<b>A5E03914864</b>	
• 150 m (492 ft)	<b>A5E03914873</b>	
Standard cable (Ex) with M12 plugs, PO insulation and PUR sleeve, blue, -40 ... +80 °C (-40 ... +176 °F)		
• 5 m	<b>A5E03914929</b>	
• 10 m	<b>A5E03914962</b>	
• 25 m	<b>A5E03914995</b>	
• 50 m	<b>A5E03915004</b>	
• 75 m	<b>A5E03915074</b>	
• 150 m	<b>A5E03915088</b>	
Standard cable (Ex) for termination, PO insulation and PUR sleeve, blue, -40 ... +80 °C (-40 ... +176 °F)		
• 5 m	<b>A5E03914945</b>	
• 10 m	<b>A5E03914973</b>	
• 25 m	<b>A5E03914984</b>	
• 50 m	<b>A5E03915015</b>	
• 75 m	<b>A5E03915057</b>	
• 150 m	<b>A5E03915100</b>	

Description	Article No.	
Heating Jacket, indoor use, 200 °C (392 °F) max. temperature. Complete with 5 m (16.4 ft) high temperature cable fitted. Dedicated plug connection to controller		
• DN 15 electric with 230 V AC controller	<b>A5E03830623</b>	
• DN 25 electric with 230 V AC controller	<b>A5E03830624</b>	
• DN 50 electric with 230 V AC controller	<b>A5E03830625</b>	
• DN 80 electric with 230 V AC controller	<b>A5E03830626</b>	
• DN 15 electric with 115 V AC controller	<b>A5E32877520</b>	
• DN 25 electric with 115 V AC controller	<b>A5E32877556</b>	
• DN 50 electric with 115 V AC controller	<b>A5E32877557</b>	
• DN 80 electric with 115 V AC controller	<b>A5E32877561</b>	

Description	Dimension	Article No.
Mating parts for hygienic fittings DIN 11851 Includes: • 2 unions • 2 mating parts (for welding in) • 2 EPDM gaskets	DN 10	<b>FDK:085U1016</b>
	DN 15	<b>FDK:085U1017</b>
	DN 25	<b>FDK:085U1019</b>
	DN 32	<b>FDK:085U1020</b>
	DN 40	<b>FDK:085U1021</b>
	DN 50	<b>FDK:085U1022</b>
Mating parts for hygienic clamp ISO 2852 Includes: • 2 clamps • 2 mating parts • 2 EPDM gaskets	25 mm	<b>FDK:085U1029</b>
	40 mm	<b>FDK:085U1031</b>
	50 mm	<b>FDK:085U1032</b>
2 EPDM gaskets with collar for mounting set DIN 11851	DN 10	<b>FDK:085U1006</b>
	DN 15	<b>FDK:085U1007</b>
	DN 25	<b>FDK:085U1009</b>
	DN 32	<b>FDK:085U1010</b>
	DN 40	<b>FDK:085U1011</b>
	DN 50	<b>FDK:085U1012</b>
	DN 65	<b>FDK:085U1013</b>

# Flow Measurement SITRANS FC

Notes