

FINE CONTROLS (UK) LTD



Fine Controls have been supplying process controls & instrumentation equipment since 1994, & now serves an ever expanding customer base, both in the UK & globally.

We offer a full range of valve & instrumentation products & services, with our product range representing leading technologies & brands:

Flow: Flow Meters & Transmitters, Flow Switches, Flow Control Valves & Batch Control Systems

Temperature: Temperature Probes & Thermowells, Temperature Transmitters, Temperature Regulators & Temperature Displays

Level: Level Transmitters & Switches

Pressure: Pressure Gauges & Transmitters, Precision & High Pressure Regulators & I-P Converters, Volume boosters.

Precision Pneumatics: Pressure Regulators, I-P Converters, Volume Boosters, Vacuum Regulators

Valves: Solenoid & Pneumatic Valves, Control Valves & Positioners, Actuated Ball, Globe or Diaphragm Valves & Isolation Valves

Services: Repair, Calibration, Panel Build, System Design & Commissioning

 FAIRCHILD
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Overview

The complete flowmeter system SITRANS FC430 can be ordered for standard, hygienic or NAMUR service. All versions can be ordered for CT service, according to OIML R 117 (Liquids other than water) and NTEP.

SIL specified compact variants can be validated and configured for SIL 2 or SIL 3 operation. SIL 3 operation requires two flowmeters in series and monitored by a SIL-rated control system. Series mounting must not introduce cross-talk between the sensors. Refer to installation guidelines.

The flowmeter is based on the latest developments within digital signal processing technology – engineered for high measuring performance:

- Fast response to rapid changes in flow
- Fast dosing applications
- High immunity against process noise
- High turndown ratio of flowrates
- Suitable for liquid and gas service
- Easy to install, commission and maintain

FC430 is available as standard with 4 to 20 mA analog output with HART 7.2. Additional functions can be freely configured for analog, pulse, frequency, relay or status output or binary input.

The transmitter comes with a user-configurable graphical display and SensorFlash, a micro SD card for configuration backup, firmware update and data storage.

The SITRANS FC430 flowmeter system consists of a SITRANS FCS400 sensor and a SITRANS FCT030 transmitter.

Benefits

- It is compact and light, fitting neatly into dense piping arrangements
- Easy maintenance because modules can be exchanged rapidly
- Effective separation of measurement from plant vibration
- Highly secure operation in safety critical applications
- Non-volatile memory of all setup and operation data
- Reliable measurements due to high signal to noise ratio
- Secure, digital transfer of measurement data from the sensor
- Short overall length; easy drop-in replacement into most existing installations
- Functional Safety (SIL X). Device suitable for use in accordance with IEC 61508 and IEC 61511.

Technical specifications

Sizes	DN 15 (½"), DN 25 (1"), DN 50 (2"), DN 80 (3")
Accuracy	± 0.10 %
Repeatability	± 0.05 %
Flow range (water @ 1 bar pressure loss)	DN 15: 3 700 kg/h (8 157 lb/h) DN 25: 11 500 kg/h (25 353 lb/h) DN 50: 52 000 kg/h (114 640 lb/h) DN 80: 136 000 kg/h (300 000 lb/h)
Architecture	Compact or remote configuration
Display	Full graphical display, 240 x 160 pixels with selection of twelve languages including Chinese and Russian
Power supply	20 ... 27 V DC ± 10%; 100 ... 240 V AC ± 10 %, 47 ... 63 Hz ± 10 %
Weight	4.6 ... 50 kg
Material	
• Sensor	316L stainless steel or Hastelloy C22
- Wetted parts	304 stainless steel
- Enclosure	Aluminum with corrosion-resistant coating
Enclosure rating	IP67
Pressure ratings	
• Measuring tubes	100 bar (1450 psi) 160 bar (2321 psi)
- 316L	
- Hastelloy C22	
• Sensor enclosure	20 bar (DN15, DN 25) 17 bar (DN 50, DN 80)
• Sensor enclosure burst pressure	>160 bar (all sizes)
Temperature ratings	
• Process medium	-50 ... +200 °C (-58 ... +392 °F)
• Ambient	-40 ... +60 °C (-40 ... +140 °F)
• Display	-20 ... +60 °C (-4 ... +140 °F)
Process connections	
• Flanges	EN 1092-1 B1, EN 1092-1 D, ANSI/ASME B16.5, JIS B 2220, DIN 11864-2
• Pipe threads	ASME B1.20 (NPT), ISO228-1 G (BSPP), VCO Quick-connect
• Hygienic threads	DIN 11851, DIN 11864-1A, ISO 2853, SMS 1145
• Hygienic clamps	DIN 11864-3A, DIN 32676, ISO 2852
Approvals	
• Hazardous area	ATEX, IECEx, EAC Ex, FM, NEPSI, CSA, INMETRO
• Pressure equipment	PED, CRN
• Hygienic	3A, EHEDG
• Custody transfer	OIML R 117, NTEP
• Operational safety (compact system only)	SIL 2 Single SIL 3 Redundant system
NAMUR	NAMUR-compliant (e.g. NE 21, NE 41, NE 107 and NE 132)
I/O	Up to 4 channels combining analog, relay or digital outputs and binary input
Communication	HART 7.2
EMC performance	
Emission	EN 55011/CISPR-11 (Class A)
Immunity	EN/IEC 61236-1 (Industry)
Mechanical load	18 to 400 Hz random The flow meter will mechanically tolerate 3.17 g RMS in all directions. Flow accuracy cannot be guaranteed under all conditions.

Flow Measurement

SITRANS FC

Flowmeter SITRANS FC430

Selection and Ordering data	Article No.	Ord. code	Selection and Ordering data	Article No.	Ord. code
SITRANS FC430 Digital coriolis flowmeter with SITRANS FCS400 Standard flow sensor with hygienic and flange/pipe thread connections and compact or remote mounting with FCT030 transmitter	7 ME 4 6 1 3 -		SITRANS FC430 Digital coriolis flowmeter with SITRANS FCS400 Standard flow sensor with hygienic and flange/pipe thread connections and compact or remote mounting with FCT030 transmitter	7 ME 4 6 1 3 -	
↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.					
Sensor size, connection size			Ex approval		
DN 15, DN 10 (1/2", 3/8")	3 F		Non-Ex		A
DN 15, DN 15 (1/2", 1/2")	3 G		ATEX		C
DN 15, DN 20 (1/2", 3/4")	3 H		IECEx		F
DN 15, DN 25 (1/2", 1")	3 J		FM		H
DN 25, DN 15 (1", 1/2")	3 K		CSA		M
DN 25, DN 25 (1", 1")	3 L		NEPSI		N
DN 25, DN 40 (1", 1 1/2")	3 N		INMETRO		P
DN 50, DN 40 (2", 1 1/2")	4 B		KCs		Q
DN 50, DN 50 (2", 2")	4 C		EAC		U
DN 80, DN 65 (3", 2 1/2")	4 J				
DN 80, DN 80 (3", 3")	4 K		Local User Interface		
DN 80, DN 100 (3", 4")	4 L		Blind		1
			Graphical, 240 x 160 pxl		3
Process connection			♦ We can offer shorter delivery times for configurations designated with the Quick Ship Symbol ♦. For details see page 9/5 in the appendix.		
EN 1092-1 B1, PN 16	A 0				
EN 1092-1 B1, PN 40	A 1				
EN 1092-1 B1, PN 63	A 2				
EN 1092-1 B1, PN 100	A 3				
EN 1092-1 B1, PN 160	B 1				
EN 1092-1 D NUT, PN 40	A 5				
EN 1092-1 D NUT, PN 63	A 6				
EN 1092-1 D NUT, PN 100	A 7				
EN 1092-1 D NUT, PN 160	A 8				
ANSI B16.5-2009, class 150	D 1				
ANSI B16.5-2009, class 300	D 2				
ANSI B16.5-2009, class 600	D 3				
ANSI B16.5-2009, class 900	D 4				
ISO228-1 G pipe thread	E 1				
ASME B1.20.1 NPT pipe thread	E 3				
DIN 11851 hygienic screwed	F 1				
DIN 32676 hygienic Tri-Clamp	G 1				
DIN 11864-1A asceptic screwed	H 1				
DIN 11864-2A asceptic flanged	H 2				
DIN 11864-3A clamped	H 3				
ISO 2852 hygienic clamped	J 1				
ISO 2853 hygienic screwed	J 5				
SMS 1145 hygienic screwed	K 1				
12-VCO-4 quick connect	K 5				
JIS B2200:2004/10K	L 2				
JIS B2200:2004/20K	L 4				
JIS B2200:2004/40K	L 6				
JIS B2200:2004/63K	L 7				
Wetted parts material			Selection and Ordering data		Order code
AISI 316L/W1.4435/W1.4404 (100 barg max.)	1		Further designs		
Hastelloy C22 (only for 7ME461)	3		Please add "-Z" to Article No. and specify Order code(s).		
Calibration/Accuracy class			Cable glands		
0.1 % flow, 5 kg/m³ density	1		Metric, no glands		A 01
0.1 % flow, 0.5 kg/m³ density	4		Metric, plastic		A 02
Standard fraction calibration	8		Metric, brass/Ni plated		A 05
Transmitter/DSL material & mounting style			Metric, stainless steel		A 06
Compact, IP67, aluminum	D		NPT, no glands		A 11
Remote, IP67, aluminum, M12	G		NPT, Plastic		A 12
Remote, IP67, aluminum, T/Box	K		NPT, brass/Ni plated		A 15
			NPT, stainless steel		A 16
Software functions and CT approvals			I/O configuration Ch1		
Standard			Ca 4 ... 20 mA HART active SIL certified		E 04
CT standard			Cp 4 ... 20 mA HART passive SIL certified		E 05
CT with NTEP			Ca 4 ... 20 mA HART active		E 06
			Cp 4 ... 20 mA HART passive		E 07
Options for Ex			Options for Ex		
ATEX + IECEx + EAC Ex			ATEX + IECEx + EAC Ex		Q 0B
			Only compact versions can be used in SIL applications.		

Selection and Ordering data	Order code	Selection and Ordering data	Order code
I/O configuration Ch2, Ch3 and Ch4		Add-on options and accessories	
None	◆ F00	Please add "-Z" to Article No. and specify Order code(s).	
aSignal, None, None	F40		
aSignal, aSignal, None	F41		
aSignal, aSignal, aSignal	F42		
aSignal, aSignal, Ia	F43	Pressure test certificate CRN	C01
aSignal, aSignal, R	F44	Pressure test certificate PED	C02
aSignal, Ia, None	F45	Material certificate EN 10204-3.1	C05
aSignal, Ia, Ia	F46	Welding inspection report	C07
aSignal, Ia, R	F47	Factory certificate to EN 10204 2.1	◆ C10
aSignal, R, None	F50	Factory certificate to EN 10204 2.2	C11
aSignal, R, R	F51	Cleaning for oil and grease	C50
pSignal, None, None	F60		
pSignal, pSignal, None	F61		
pSignal, pSignal, pSignal	F62		
pSignal, pSignal, Ip	F63		
pSignal, pSignal, R	F64		
pSignal, Ip, None	F65		
pSignal, Ip, Ip	F66		
pSignal, Ip, R	F67		
pSignal, R, None	F70		
pSignal, R, R	F71		
aSignal, aSignal, pSignal	F80		
aSignal, aSignal, Ip	F81		
aSignal, pSignal, None	F82		
aSignal, pSignal, pSignal	F83		
aSignal, pSignal, Ia	F84		
aSignal, pSignal, Ip	F85		
aSignal, pSignal, R	F86		
aSignal, Ia, Ip	F87		
aSignal, Ip, None	F90		
aSignal, Ip, Ip	F91		
aSignal, Ip, R	F92		
pSignal, pSignal, Ia	F93		
pSignal, Ia, None	F94		
pSignal, Ia, Ia	F95		
pSignal, Ia, Ip	F96		
pSignal, Ia, R	F97		
Notes on I/O configurations:		Region-specific approvals and certificates	
a or p suffix: The I/O module is selected at ordering with either active or passive function.		South Korea (KCC)	W28
Signal: The output can be selected for Current (0 or 4 to 20 mA), frequency or pulse function in the menu.		Additional data	
I: Discrete status input to the flowmeter. Functions are selected in the menu including 'Freeze output', 'Reset totalizer'.		Please add "-Z" to Article No. and specify Order code(s) and plain text.	
R: Relay output for discrete status reporting. Function is selected in the menu, including 'Error', 'High flow warning'.		Tag name	
The MLFB structure for FC430 systems must be filled to this level , including "-Z" options A., B., E. and F.		Tag name plate, stainless steel	Y17
		◆ We can offer shorter delivery times for configurations designated with the Quick Ship Symbol ◆. For details see page 9/5 in the appendix.	
		Operating instructions for SITRANS FC430	
		Description	Article No.
		• English	A5E03361511
		• German	A5E03651143
		This device is shipped with a Quick Start guide and a CD containing further SITRANS FC literature.	
		All literature is available to download for free, in a range of languages, at www.siemens.com/processinstrumentation/documentation	

Flow Measurement

SITRANS FC C

Flowmeter SITRANS FC430

Selection and Ordering data	Article No.	Ord. code	Selection and Ordering data	Order code
SITRANS FC430 Digital coriolis flowmeter with SITRANS FCS400 Flow sensor Hygienic version with Ra < 0.8 µm, elec-tropolished, 3A approved, and compact or remote mounting with FCT030 transmitter	7 ME 4 6 2 3 -		Further designs Please add "-Z" to Article No. and specify Order code(s).	
↗ Click on the Article No. for the online con-figuration in the PIA Life Cycle Portal.			Cable glands Metric, no glands Metric, plastic Metric, brass/Ni plated Metric, stainless steel NPT, no glands NPT, plastic NPT, brass/Ni plated NPT, stainless steel	A01 A02 A05 A06 A11 A12 A15 A16
Sensor size, connection size			Software functions and CT approvals Standard CT standard CT with NTEP	B11 B31 B52
DN 15, DN 10 (½", 3/8") DN 15, DN 15 (½", ½") DN 15, DN 20 (½", ¾") DN 15, DN 25 (½", 1") DN 25, DN 25 (1", 1") DN 25, DN 32 (1", 1¼") DN 25, DN 40 (1", 1½") DN 50, DN 40 (2", 1½") DN 50, DN 50 (2", 2") DN 80, DN 65 (3", 2½") DN 80, DN 80 (3", 3")	3 F 3 G 3 H 3 J 3 L 3 M 3 N 4 B 4 C 4 J 4 K	3 F 3 G 3 H 3 J 3 L 3 M 3 N 4 B 4 C 4 J 4 K	I/O configuration Ch1 Ca 4 ... 20 mA HART active SIL certified Cp 4 ... 20 mA HART passive SIL certified Ca 4 ... 20 mA HART active Cp 4 ... 20 mA HART passive	E04 E05 E06 E07
Process connection			Options for Ex ATEX + IECEx + EAC Ex	Q0B
DIN 11851 0.8 µm hygienic screwed DIN 32676 0.8 µm hygienic Tri-Clamp DIN 11864-1 0.8 µm hygienic screwed DIN 11864-2A BF-A 0.8 µm hygienic screwed (metric) DIN 11864-3A BF-A 0.8 µm hygienic clamped DIN 11864-2B BF-A 0.8 µm hygienic flanged (NPS) ISO 2852 0.8 µm hygienic clamped ISO 2853 0.8 µm hygienic screwed	F 1 G 1 H 1 H 2 H 3 H 4 J 1 J 5	1 1 1 1 1 1	Only compact versions can be used in SIL applications.	
Wetted parts material				
AISI 316L/1.4435 (40 bar max.)		1		
Calibration/Accuracy class				
0.1 % flow, 5 kg/m³ density 0.1 % flow, 0.5 kg/m³ density Standard fraction calibration		1 4 8		
Transmitter/DSL material and mounting style				
Compact, IP67, aluminum Remote, IP67, aluminum, M12 Remote, IP67, aluminum, T/Box		D G K		
Ex approval				
Non-Ex ATEX II 2GD IECEx Gdb FM, Class 1, Div 1 CSA, Class 1, Zone 1 NEPSI INMETRO KCs EAC		A C F H M N P Q U		
Local User Interface				
Blind Graphical, 240 x 160 pxl		1 3		

↗ We can offer shorter delivery times for configurations designated with the Quick Ship Symbol ⚡. For details see page 9/5 in the appendix.

Selection and Ordering data	Order code	Selection and Ordering data	Order code
I/O configuration Ch2, Ch3 and Ch4		Add-on options and accessories	
None	◆ F00	Please add "-Z" to Article No. and specify Order code(s).	
aSignal, None, None	F40		
aSignal, aSignal, None	F41		
aSignal, aSignal, aSignal	F42		
aSignal, aSignal, Ia	F43	Pressure test certificate CRN	C01
aSignal, aSignal, R	F44	Pressure test certificate PED	C02
aSignal, Ia, None	F45	Material certificate EN 10204-3.1	C05
aSignal, Ia, Ia	F46	Welding inspection report	C07
aSignal, Ia, R	F47	Factory certificate to EN 10204 2.1	◆ C10
aSignal, R, None	F50	Factory certificate to EN 10204 2.2	C11
aSignal, R, R	F51	Cleaning for oil and grease	C50
pSignal, None, None	F60		
pSignal, pSignal, None	F61		
pSignal, pSignal, pSignal	F62		
pSignal, pSignal, Ip	F63		
pSignal, pSignal, R	F64		
pSignal, Ip, None	F65		
pSignal, Ip, Ip	F66		
pSignal, Ip, R	F67		
pSignal, R, None	F70		
pSignal, R, R	F71		
aSignal, aSignal, pSignal	F80		
aSignal, aSignal, Ip	F81		
aSignal, pSignal, None	F82		
aSignal, pSignal, pSignal	F83		
aSignal, pSignal, Ia	F84		
aSignal, pSignal, Ip	F85		
aSignal, pSignal, R	F86		
aSignal, Ia, Ip	F87		
aSignal, Ip, None	F90		
aSignal, Ip, Ip	F91		
aSignal, Ip, R	F92		
pSignal, pSignal, Ia	F93		
pSignal, Ia, None	F94		
pSignal, Ia, Ia	F95		
pSignal, Ia, Ip	F96		
pSignal, Ia, R	F97		
Notes on I/O configurations:		Region-specific approvals and certificates	
a or p suffix: The I/O module is selected at ordering with either active or passive function.		South Korea (KCC)	W28
Signal: The output can be selected for Current (0 or 4 to 20 mA), frequency or pulse function in the menu.		Additional data	
I: Discrete status input to the flowmeter. Functions are selected in the menu including 'Freeze output', 'Reset totalizer'.		Please add "-Z" to Article No. and specify Order code(s) and plain text.	
R: Relay output for discrete status reporting. Function is selected in the menu, including 'Error', 'High flow warning'.		Tag name	
The MLFB structure for FC430 systems must be filled to this level , including "-Z" options A., B., E. and F.		Tag name plate, stainless steel	Y17
		◆ We can offer shorter delivery times for configurations designated with the Quick Ship Symbol ◆. For details see page 9/5 in the appendix.	
		Operating instructions for SITRANS FC430	
		Description	Article No.
		• English	A5E03361511
		• German	A5E03651143
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Flow Measurement

SITRANS FC

Flowmeter SITRANS FC430

Selection and Ordering data	Article No.	Ord. code	Selection and Ordering data	Article No.	Ord. code
SITRANS FC430 Digital coriolis flowmeter with SITRANS FCS400 NAMUR compliant flow sensor with flange/pipe thread connections and compact or remote mounting with FCT030 transmitter	7 ME 4 7 1 3 -		SITRANS FC430 Digital coriolis flowmeter with SITRANS FCS400 NAMUR compliant flow sensor with flange/pipe thread connections and compact or remote mounting with FCT030 transmitter	7 ME 4 7 1 3 -	
<p>↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.</p>					
Sensor size, Connection size					
DN 15, DN 6 (1/2", 1/4")	3 E		Ex approval	A	
DN 15, DN 10 (1/2", 3/8")	3 F		Non-Ex	C	
DN 15, DN 15 (1/2", 1/2")	3 G		ATEX II 2GD	F	
DN 15, DN 20 (1/2", 3/4")	3 H		IECEx GDb	H	
DN 15, DN 25 (1/2", 1")	3 J		FM, Class 1, Div 1	M	
DN 25, DN 25 (1", 1")	3 L		CSA, Class 1, Zone 1	N	
DN 25, DN 32 (1", 1 1/4")	3 M		NEPSI	P	
DN 25, DN 40 (1", 1 1/2")	3 N		INMETRO	Q	
DN 50, DN 40 (2", 1 1/2")	4 B		KCs	U	
DN 50, DN 50 (2", 2")	4 C		EAC		
DN 80, DN 65 (3", 2 1/2")	4 J		Local User Interface		
DN 80, DN 80 (3", 3")	4 K		Blind	1	
DN 80, DN 100 (3", 4")	4 L		Graphical, 240 x 160 pxl	3	
<p>↗ We can offer shorter delivery times for configurations designated with the Quick Ship Symbol ⚡. For details see page 9/5 in the appendix.</p>					
Process connection					
EN 1092-1 B1, PN 16	A 0		Selection and Ordering data	Order code	
EN 1092-1 B1, PN 40	A 1		Further designs		
EN 1092-1 B1, PN 63	A 2		Please add "-Z" to Article No. and specify Order code(s).		
EN 1092-1 B1, PN 100	A 3		Cable glands		
EN 1092-1 B1, PN 160	B 1		Metric, no glands	✓ A01	
EN 1092-1 D, PN 40	A 5		Metric, plastic	✓ A02	
EN 1092-1 D, PN 63	A 6		Metric, brass/Ni plated	✓ A05	
EN 1092-1 D, PN 100	A 7		Metric, stainless steel	✓ A06	
EN 1092-1 D, PN 160	A 8		NPT, no glands	✓ A11	
ANSI B16.5, RF, class 150	D 1		NPT, plastic	✓ A12	
ANSI B16.5, RF, class 300	D 2		NPT, brass/Ni plated	✓ A15	
ANSI B16.5, RF, class 600	D 3		NPT, stainless steel	✓ A16	
ANSI B16.5, RF, class 900	D 4		Software functions and CT approvals		
ISO228-1 G pipe thread	E 1		Standard	✓ B11	
ASME B1.20.1 NPT pipe thread	E 3		CT standard	✓ B31	
DIN 11851 Hygienic screwed	F 1		CT with NTEP	✓ B52	
DIN 32676-C (inch) Hygienic clamped	G 1		I/O configuration Ch1		
DIN 11864-1 Hygienic screwed	H 1		Ca 4 ... 20 mA HART active, SIL certified	✓ E04	
DIN 11864-2A BF-A Hygienic flanged metric	H 2		Cp 4 ... 20 mA HART passive, SIL certified	✓ E05	
DIN 11864-3A Hygienic clamped	H 3		Ca 4 ... 20 mA HART active	✓ E06	
DIN 11864-2B BF-A Hygienic flanged NPS	H 4		Cp 4 ... 20 mA HART passive	✓ E07	
ISO 2852 Hygienic clamped	J 1		Options for Ex		
ISO 2853 Hygienic screwed	J 5		ATEX + IECEx + EAC Ex	✓ Q0B	
SMS 1145 Hygienic screwed	K 1		Only compact versions can be used in SIL applications.		
Swagelok Quick Connect	K 5				
JIS B2200/10K	L 2				
JIS B2200/20K	L 4				
JIS B2200/40K	L 6				
JIS B2200/63K	L 7				
Wetted parts material					
AISI 316L/W1.4435/W1.4404 (100 barg max.)	1				
Hastelloy C22	3				
Calibration/Accuracy class					
0.1 % flow, 5 kg/m³ density	1				
0.1 % flow, 0.5 kg/m³ density	4				
Standard fraction calibration	8				
Transmitter/DSL material & mounting style					
Compact, IP67, aluminum	D				
Remote, IP67, aluminum, M12	G				
Remote, IP67, aluminum, T/Box	K				

Selection and Ordering data	Order code	Selection and Ordering data	Order code
I/O configuration Ch2, Ch3 and Ch4		Add-on options and accessories	
None	◆ F00	Please add "-Z" to Article No. and specify Order code(s).	
aSignal, None, None	F40		
aSignal, aSignal, None	F41		
aSignal, aSignal, aSignal	F42		
aSignal, aSignal, Ia	F43	Pressure test certificate CRN	C01
aSignal, aSignal, R	F44	Pressure test certificate PED	C02
aSignal, Ia, None	F45	Material certificate EN 10204-3.1	C05
aSignal, Ia, Ia	F46	Welding inspection report	C07
aSignal, Ia, R	F47	Factory certificate to EN 10204 2.1	◆ C10
aSignal, R, None	F50	Factory certificate to EN 10204 2.2	C11
aSignal, R, R	F51	Cleaning for oil and grease	C50
pSignal, None, None	F60		
pSignal, pSignal, None	F61		
pSignal, pSignal, pSignal	F62		
pSignal, pSignal, Ip	F63		
pSignal, pSignal, R	F64		
pSignal, Ip, None	F65		
pSignal, Ip, Ip	F66		
pSignal, Ip, R	F67		
pSignal, R, None	F70		
pSignal, R, R	F71		
aSignal, aSignal, pSignal	F80		
aSignal, aSignal, Ip	F81		
aSignal, pSignal, None	F82		
aSignal, pSignal, pSignal	F83		
aSignal, pSignal, Ia	F84		
aSignal, pSignal, Ip	F85		
aSignal, pSignal, R	F86		
aSignal, Ia, Ip	F87		
aSignal, Ip, None	F90		
aSignal, Ip, Ip	F91		
aSignal, Ip, R	F92		
pSignal, pSignal, Ia	F93		
pSignal, Ia, None	F94		
pSignal, Ia, Ia	F95		
pSignal, Ia, Ip	F96		
pSignal, Ia, R	F97		
Notes on I/O configurations:		Region-specific approvals and certificates	
a or p suffix: The I/O module is selected at ordering with either active or passive function.		South Korea (KCC)	W28
Signal: The output can be selected for Current (0 or 4 to 20 mA), frequency or pulse function in the menu.		Additional data	
I: Discrete status input to the flowmeter. Functions are selected in the menu including 'Freeze output', 'Reset totalizer'.		Please add "-Z" to Article No. and specify Order code(s) and plain text.	
R: Relay output for discrete status reporting. Function is selected in the menu, including 'Error', 'High flow warning'.		Tag name	
The MLFB structure for FC430 systems must be filled to this level , including "-Z" options A..., B..., E... and F...		Tag name plate, stainless steel	Y17
		◆ We can offer shorter delivery times for configurations designated with the Quick Ship Symbol ◆. For details see page 9/5 in the appendix.	
		Operating instructions for SITRANS FC430	
		Description	Article No.
		• English	A5E03361511
		• German	A5E03651143
		This device is shipped with a Quick Start guide and a CD containing further SITRANS FC literature.	
		All literature is available to download for free, in a range of languages, at www.siemens.com/processinstrumentation/documentation	

Accessories

Description	Article No.		Description	Article No.	
CT plug Tamper cover for CT locking. Fits over the M12 plug at both sensor and transmitter ends of the remote system cable (2 pcs.)	A5E31478498		Standard cable (Ex) with M12 plugs, PO insulation and PUR sleeve, blue, -40 ... +80 °C (-40 ... +176 °F)	A5E03914929	
Bag of glands (metric) in black plastic ¹⁾	A5E03907414		• 5 m • 10 m • 25 m • 50 m • 75 m • 150 m	A5E03914962 A5E03914995 A5E03915004 A5E03915074 A5E03915088	
Bag of glands, (metric) in gray plastic Ex e/i ¹⁾	A5E03907424		Standard cable (Ex) for termination, PO insulation and PUR sleeve, blue, -40 ... +80 °C (-40 ... +176 °F)	A5E03914945	
Bag of glands (metric) in AISI 316 SS Ex e/i ¹⁾	A5E03907429		• 5 m • 10 m • 25 m • 50 m • 75 m • 150 m	A5E03914973 A5E03914984 A5E03915015 A5E03915057 A5E03915100	
Bag of glands (metric) in Ni-plated brass Ex e/i ¹⁾	A5E03907430				
Bag of glands (NPT) in black plastic ²⁾	A5E03907435				
Bag of glands (NPT) in gray plastic Ex e/i ²⁾	A5E03907451		Suitcase for comprehensive sales support and training for FC430 It comes in a special suitcase with a fan implemented that allows the flowmeter to demonstrate airflow.	A5E31467598	
Bag of glands (NPT) in AISI 316 SS Ex e/i ²⁾	A5E03907467			A5E33219071	
Bag of glands (NPT) in Ni-plated brass Ex e/i ²⁾	A5E03907473				
Standard cable (non-Ex) with M12 plugs, PO insulation and PUR sleeve, gray, -40 ... +80 °C (-40 ... +176 °F) • 5 m (16.4 ft) • 10 m (32.8 ft) • 25 m (82 ft) • 50 m (164 ft) • 75 m (246 ft) • 150 m (492 ft)	A5E03914805 A5E03914850 A5E03914853 A5E03914859 A5E03914861 A5E03914874				
Service toolkit for field maintenance of transmitter and sensor components. Contains all hand tools necessary for maintenance. Other tools may be required for installation.	A5E03722877				
Standard cable (non-Ex) for termination, PO insulation and PUR sleeve, gray, -40 ... +80 °C (-40 ... +176 °F) • 5 m (16.4 ft) • 10 m (32.8 ft) • 25 m (82 ft) • 50 m (164 ft) • 75 m (246 ft) • 150 m (492 ft)	A5E03914833 A5E03914849 A5E03914854 A5E03914856 A5E03914864 A5E03914873				

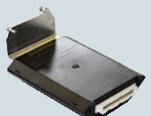
Flow Measurement

SITRANS F C

Flowmeter - Accessories/Spare parts

Description	Article No.		Description	Dimension	Article No.
Heating Jacket, indoor use, 0 ... 200 °C (32 ... 392 °F) max. temperature. Complete with 5 m (16.4 ft) high temperature cable fitted. Dedicated plug connection to included controller			Mating parts for hygienic fittings DIN 11851 Includes: • 2 unions • 2 mating parts (for welding in) • 2 EPDM gaskets		
• 230 V AC - DN 15 electric - DN 25 electric - DN 50 electric - DN 80 electric	A5E33035287		DN 10	FDK:085U1016	
	A5E33035324		DN 15	FDK:085U1017	
	A5E33035325		DN 25	FDK:085U1019	
	A5E33035336		DN 32	FDK:085U1020	
• 115 V AC - DN 15 electric - DN 25 electric - DN 50 electric - DN 80 electric	A5E32877520		DN 40	FDK:085U1021	
	A5E32877556		DN 50	FDK:085U1022	
	A5E32877557		DN 65	FDK:085U1023	
	A5E32877561				
Heating jacket controller, IP65. Digital display for 0 ... 200 °C (32 .. 392 °F) control setpoint			Mating parts for hygienic clamp ISO 2852 Includes: • 2 clamps • 2 mating parts • 2 EPDM gaskets		
• 230 V AC	A5E03839193		25 mm	FDK:085U1029	
• 115 V AC	A5E03839194		40 mm	FDK:085U1031	
1) 2 pcs M20; 1 pce M25 with single and dual cable inserts			50 mm	FDK:085U1032	
2) 2 pcs ½" NPT; 1 pce ½" NPT with single and dual cable inserts					
			2 EPDM gaskets with collar for mounting set DIN 11851		
			DN 10	FDK:085U1006	
			DN 15	FDK:085U1007	
			DN 25	FDK:085U1009	
			DN 32	FDK:085U1010	
			DN 40	FDK:085U1011	
			DN 50	FDK:085U1012	
			DN 65	FDK:085U1013	

Flowmeter - Accessories/Spare parts**Spare parts - transmitter FCT030**

Description	Article No.	
Display and keypad assembly with firewire connection to the transmitter module ¹⁾	A5E03548971	
Sensor interface (Compact). Front end flow calculator and process detection. SIL 3 approved ¹⁾	A5E03549142	
Sensor interface (Remote); barrier unit for high speed digital communication and Ex ib power supply to remote front end DSL module	A5E03549098	
Display lid in painted aluminum with Ex glass plate and silicone o-ring seal	A5E03549344	
Display lid in painted aluminum with FCM approved PETG polymer window (Food Contact Material) and silicone o-ring seal	A5E38510378	
Transmitter cassette (active) with SIL approved 4 ... 20 mA output and HART 7.2 ¹⁾	A5E03549357	
Transmitter cassette (passive) with SIL approved 4 ... 20 mA output and HART 7.2 ¹⁾	A5E03549383	
Bag of loose spare parts; including cable strain relief components, mounting tool, seals and gasket, assorted screws and washers, hex cap nut, blind plugs, and o-rings	A5E03549396	
Power supply 240 V AC, 47 ... 63 Hz 24 ... 90 V DC	A5E03549413	
Blind lid in painted aluminum with silicone o-ring seal	A5E03549429	
I/O assembly Advise Order code F00 to F97 from Selection and Ordering data ²⁾	A5E03939114	
SensorFlash (micro SD card)	A5E03915258	

Description	Article No.	
Mounting bracket - FCT030; in painted aluminum for pipe or wall mounting of transmitter FCT030 remote version. Including lock ring, pressure pads and seal cap	A5E03906091	
M12 option for sensor housing in stainless steel. Pre-wired and potted to replace M12 socket in DSL housing	A5E03906095	
M12 option - remote - in painted aluminum. Pre-wired and potted replacement M12 connection for FCT030 transmitter remote version	A5E03906104	
Remote terminal house - M20	A5E03906112	
Remote terminal house - NPT - in painted aluminum for sensor cable termination at FCT030 transmitter remote version. Pre-wired and potted	A5E03906130	

Spare parts - sensor FCS400

Description	Article No.	
Blind lid in painted aluminum with o-ring seal	A5E03549295	
Frontend cassette Spare part frontend cassette for remote version of FC430 and cassette for FC410 ¹⁾	A5E03549191	
Sensor housing metric	A5E03549313	
Sensor housing NPT in painted aluminum	A5E03906080	
Bag of loose parts for sensor; including cable strain relief components, washer, seals, o-rings, and assorted screws	A5E03549324	

¹⁾ The system firmware bundle must be stated in the "Remark" field when ordering, to ensure compatibility of the system. The FW revision is found on the product label for FC430 and FC410.

Further for FC430 the firmware bundle can be found in the local display in the menu items 3.1.10, e.g. "2.02.01-02"

²⁾ The I/O configuration must be stated in the "Remark" field. The I/O configuration is found in the F option of the ordering code, e.g. code "F40" for ordering Ch2 Active Current/Freq/Pulse, Ch3 Active Current/Freq/Pulse, Ch4 Active Input