Flow Measurement SITRANS F C

Flowmeter SITRANS FC430

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).

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 narrow 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 with selection of twelve languages includ- ing Chinese and Russian
Display	Full graphical display, 240 x 160 pixels
Power supply	20 27 V DC ± 10%; 100 240 V AC ± 10 %, 47 63 Hz ± 10%
Weight	4.6 50 kg
Material	
• Sensor	
 Wetted parts Enclosure 	316L stainless steel or Hastelloy C22 304 stainless steel
• Transmitter	Aluminum with corrosion-resistant coating
Enclosure rating	IP67
Pressure ratings	
Measuring tubes	
- 316L	100 bar (1450 psi)
 Hastelloy C22 Sensor enclosure 	160 bar (2321 psi) 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, FM, NEPSI, CSA, INMETRO
Pressure equipmentHygienic	PED, CRN 3A, EHEDG
, 0	
Custody transferOperational safety	OIML R 117 SIL 2 Single
(compact system only)	SIL 3 Redundant system
NAMUR	NAMUR-compliant (e.g. NE 21, NE 41 and NE 132)
VO	Up to 4 channels combining ana- log, 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 tol- erate 3.17 g RMS in all directions. Flow accuracy cannot be guaran- teed under all conditions.

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Selection and Ordering data			icle N			rd.	cod	e	
SITRANS FC430 Digital coriolis flowme		7 M	E46	13	-				
with SITRANS FCS400 Standard flow s sor with hygienic and flange/pipe threa connections and compact or remote mounting with FCT030 transmitter		ľ		-	1	•			
Click on the Article No. for the online of figuration in the PIA Life Cycle Portal.	on-								
Sensor size, connection size									
DN 15, DN 10 (½", 3/8") DN 15, DN 15 (½", ½")	•	3 F 3 G							
DN 15, DN 20 (½", ¾")		3 H							
DN 15, DN 25 (½", 1")	•	3 J							
DN 25, DN 15 (1", ½")		3 K							
DN 25, DN 25 (1", 1")	٠	3 L							
DN 25, DN 40 (1", 1½")	•	3 N							
DN 50, DN 40 (2", 1½")	•	4 B							
DN 50, DN 50 (2", 2")	•	4 C						l.	
DN 80, DN 65 (3", 2½") DN 80, DN 80 (3", 3")	•	4 J 4 K						12	
DN 80, DN 100 (3", 4")	_	4 L							
Process connection									
EN 1092-1 B1, PN 16			A 0						
EN 1092-1 B1, PN 40	•		A 1 A 2						
EN 1092-1 B1, PN 63 EN 1092-1 B1, PN 100			A 2 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 EN 1092-1 D NUT, PN 160			A 7 A 8						
ANSI B16.5-2009, class 150			D1						
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 ASME B1.20.1 NPT pipe thread	•		E1 E3						
DIN 11851 hygienic screwed			E 3						
DIN 32676 hygienic Tri-Clamp			G 1						
DIN 11864-1A asceptic screwed	•		H1						
DIN 11864-2A asceptic flanged	•		H 2						
DIN 11864-3A clamped			H 3						
ISO 2852 hygienic clamped	٠		J 1						
ISO 2853 hygienic screwed	٠		J 5						
SMS 1145 hygienic screwed			K 1						
12-VCO-4 quick connect JIS B2200:2004/10K			K 5 L 2						
JIS B2220:2004/20K			L 4						
JIS B2220:2004/40K			L 6						
JIS B2220:2004/63K			L 7						
Wetted parts material									
AISI 316L/W1.4435/W1.4404 (100 barg ma Hastelloy C22 (only for 7ME461)	x.) 🌰		1 3						
Calibration/Accuracy class	•								
0.1 % flow, 5 kg/m ³ density 0.1 % flow, 1 kg/m ³ density	•			1					
Standard fraction calibration	_			8					
Transmitter/DSL material & mounting sty	/le								
Compact, IP67, aluminum	•				D				
Remote, IP67, aluminum, M12	•				G K				

Selection and Ordering data	Article No.	Ord. code
SITRANS FC430 Digital coriolis flowmeter	7 M E 4 6 1 3 -	
with SITRANS FCS400 Standard flow sen- sor with hygienic and flange/pipe thread connections and compact or remote mounting with FCT030 transmitter		
Ex approval		
Non-Ex		A
ATEX II 2GD		С
IECEx GDb		F
FM, Class 1, Div 1		н
CSA, Class 1, Zone 1		М
Local User Interface		
Blind		1
Graphical, 240 x 160 pxl		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
Further designs		
Please add "-Z" to Article No. and specify Order code(s).		
Cable glands		
Metric, no glands	•	A01
Metric, plastic	•	A02
Metric, brass/Ni plated		A05
Metric, stainless steel		A06
NPT, no glands		A11
NPT, Plastic		A12
NPT, brass/Ni plated		A15
NPT, stainless steel		A16
Sofware functions and CT approvals		
Standard	•	B11
CT standard		B31
I/O configuration Ch1		
Ca 4 20 mA HART active SIL certified	•	E04
Cp 4 20 mA HART passive SIL certified		E05
Ca 4 20 mA HART active	•	E06
Cp 4 20 mA HART passive		E07
Only compact versions can be used in SIL application	ns	

Only compact versions can be used in SIL applications.

SITRANS F C

Flowmeter SITRANS FC430

Selection and Ordering data	Order code
I/O configuration Ch2, Ch3 and Ch4	
None	F00
aSignal, None, None aSignal, aSignal, None aSignal, aSignal, aSignal	F40 F41 F42
aSignal, aSignal, la aSignal, aSignal, R aSignal, la, None	F43 F44 F45
aSignal, Ia, Ia aSignal, Ia, R aSignal, R, None	F46 F47 F50
aSignal, R, R pSignal, None, None pSignal, pSignal, None	F51 F60 F61
pSignal, pSignal, pSignal pSignal, pSignal, Ip pSignal, pSignal, R	F62 F63 F64
pSignal, Ip, None pSignal, Ip, Ip pSignal, Ip, R	F65 F66 F67
pSignal, R, None pSignal, R, R aSignal, aSignal, pSignal	F70 F71 F80
aSignal, aSignal, Ip aSignal, pSignal, None aSignal, pSignal, pSignal	F81 F82 F83
aSignal, pSignal, la aSignal, pSignal, lp aSignal, pSignal, R	F84 F85 F86
aSignal, Ia, Ip aSignal, Ip, None aSignal, Ip, Ip	F87 F90 F91
aSignal, Ip, R pSignal, pSignal, Ia pSignal, Ia, None	F92 F93 F94
pSignal, Ia, Ia pSignal, Ia, Ip pSignal, Ia, R	F95 F96 F97

Notes on I/O configurations:

a or p suffix: The I/O module is selected at ordering with either active or passive function.

Signal: The output can be selected for Current (0 or 4 to 20 mA), frequency or pulse function in the menu.

I: Discrete status input to the flowmeter. Functions are selected in the menu including 'Freeze output', 'Reset totalizer'.

R: Relay output for discrete status reporting. Function is selected in the menu, including 'Error', 'High flow warning'.

The MLFB structure for FC430 systems must be filled to **this level**, including **"-Z"** options A., B., E. and F.

Selection and Ordering data	Order code
Add-on options and accessories Please add "- Z " to Article No. and specify Order code(s).	
Certificates	
Pressure test certificate CRN Pressure test certificate PED Material certificate EN 10204-3.1	C01 C02 C05
Welding inspection report Factory certificate to EN 10204 2.1 Factory certificate to EN 10204 2.2	C07 C10 C11
Cable	
None	L50
5 m (16.4 ft), standard with M12 plugs fitted 5 m (16.4 ft), standard	L51 L52
10 m (32.8 ft) standard with M12 plugs fitted 10 m (32.8 ft), standard	L55 L56
25 m (82 ft), standard with M12 plugs fitted 25 m (82 ft), standard	L59 L60
50 m (164 ft), standard with M12 plugs fitted 50 m (164 ft), standard	L63 L64
75 m (246 ft), standard with M12 plugs fitted 75 m (246 ft), standard	L67 L68
150 m (492 ft), standard with M12 plugs fitted 150 m (492 ft), standard	L71 L72
Additional data	
Please add "-Z" to Article No. and specify Order code(s) and plain text.	
Tag name	
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	
 Spanish 	A5E03651152	
• French	A5E03651188	
Italian	A5E03651190	
Chinese	A5E03922773	

This device is shipped with a Quick Start guide and a CD containing further SITRANS F C literature.

All literature is also available for free at: http://www.siemens.com/flowdocumentation

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Flow Measurement

SITRANS F C

Flowmeter SITRANS FC430

Selection and Ordering data		Artic	le N	0.	Or	d. c	ode
SITRANS FC430 Digital coriolis flowmet	er	7 M E	46	23	-		
with SITRANS FCS400 Flow sensor Hygienic version with Ra < 0.8 μ m, 3A approved, and compact or remote moun ing with FCT030 transmitter	ıt-			-		ľ	
Click on the Article No. for the online co figuration in the PIA Life Cycle Portal.	n-						
Sensor size, connection size							
DN 15, DN 10 (½", 3/8")		3 F					
DN 15, DN 15 (½", ½") DN 15, DN 20 (½", ¾")	•	3 G 3 H					
DN 15, DN 25 (½", 1")		3 J					
DN 25, DN 25 (1", 1")	•	3 L					
DN 25, DN 32 (1", 1¼")	_	3 M					
DN 25, DN 40 (1", 1½")		3 N					
DN 50, DN 40 (2", 1½")		4 B					
DN 50, DN 50 (2", 2")		4 C					
DN 80, DN 65 (3", 2½") DN 80, DN 80 (3", 3")	•	4 J 4 K					
Process connection							
DIN 11851 0.8 µm hygienic screwed		F	1				
DIN 32676 0.8 µm hygienic Tri-Clamp		G	1				
DIN 11864-1 0.8 µm hygienic screwed		н	1				
DIN 11864-2A BF-A 0.8 µm hygienic		н	2				
screwed (metric) DIN 11864-3A BF-A 0.8 µm hygienic			3				
clamped	-		J				
DIN 11864-2B BF-A 0.8 μm hygienic flange (NPS)	ed	н	4				
ISO 2852 0.8 µm hygienic clamped	٠	J	1				
ISO 2853 0.8 µm hygienic screwed		J	5				
Wetted parts material							
AISI 316L/1.4435 (40 bar max.)	•		1				
Calibration/Accuracy class							
0.1 % flow, 5 kg/m ³ density	•			1			
0.1 % flow, 1 kg/m ³ density Standard fraction calibration				4			
Transmitter/DSL material and mounting				Ŭ			
style							
Compact, IP67, aluminum	•				D		
Remote, IP67, aluminum, M12					G		
Remote, IP67, aluminum, T/Box	•				K		
Ex approval Non-Ex					A		
ATEX II 2GD	•				ĉ		
IECEx GDb					F		
FM, Class 1, Div 1					Н		
CSA, Class 1, Zone 1					М		
Local User Interface							
Blind Graphical, 240 x 160 pxl					:		
Grapmoal, 270 × 100 pxi							

Selection and Ordering data	Order code
Further designs	
Please add "-Z" to Article No. and specify Order code(s).	
Cable glands	
Metric, no glands	A01
Metric, plastic	A02
Metric, brass/Ni plated	A05
Metric, stainless steel	A06
NPT, no glands	A11
NPT, plastic	A12
NPT, brass/Ni plated	A15
NPT, stainless steel	A16
Sofware functions and CT approvals	
Standard	B11
CT standard	B31
I/O configuration Ch1	
Ca 4 20 mA HART active SIL certified	E04
Cp 4 20 mA HART passive SIL certified	E05
Ca 4 20 mA HART active	E06
Cp 4 20 mA HART passive	E07

Only compact versions can be used in SIL applications.

SITRANS F C

Flowmeter SITRANS FC430

Selection and Ordering data	Order code
I/O configuration Ch2, Ch3 and Ch4	
None	F00
aSignal, None, None	F40
aSignal, aSignal, None	F41
aSignal, aSignal, aSignal	F42
aSignal, aSignal, la	F43
aSignal, aSignal, R aSignal, Ia, None	F44 F45
8 , ,	F45
aSignal, Ia, Ia aSignal, Ia, R	F40 F47
aSignal, R, None	F50
aSignal, R, R	F51
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 F67
pSignal, Ip, R	
pSignal, R, None pSignal, R, R	F70 F71
aSignal, aSignal, pSignal	F80
aSignal, aSignal, Ip	F81
aSignal, pSignal, None	F82
aSignal, pSignal, pSignal	F83
aSignal, pSignal, la	F84
aSignal, pSignal, Ip	F85
aSignal, pSignal, R	F86
aSignal, Ia, Ip	F87
aSignal, Ip, None aSignal, Ip, Ip	F90 F91
3	
aSignal, Ip, R pSignal, pSignal, Ia	F92 F93
pSignal, Ia, None	F94
pSignal, Ia, Ia	F95
pSignal, Ia, Ip	F96
pSignal, Ia, R	F97

Notes on I/O configurations:

a or p suffix: The I/O module is selected at ordering with either active or passive function.

Signal: The output can be selected for Current (0 or 4 to 20 mA), frequency or pulse function in the menu.

I: Discrete status input to the flowmeter. Functions are selected in the menu including 'Freeze output', 'Reset totalizer'.

R: Relay output for discrete status reporting. Function is selected in the menu, including 'Error', 'High flow warning'.

The MLFB structure for FC430 systems must be filled to **this level**, including **"-Z"** options A., B., E. and F.

Selection and Ordering data	Order code
Add-on options and accessories Please add "- Z " to Article No. and specify Order code(s).	
Certificates	
Pressure test certificate CRN Pressure test certificate PED Material certificate EN 10204-3.1	C01 C02 C05
Welding inspection report Factory certificate to EN 10204 2.1 Factory certificate to EN 10204 2.2	C07 C10 C11
Cable	
None	L50
5 m (16.4 ft), standard with M12 plugs fitted 5 m (16.4 ft), standard	L51 L52
10 m (32.8 ft) standard with M12 plugs fitted 10 m (32.8 ft), standard	L55 L56
25 m (82 ft), standard with M12 plugs fitted 25 m (82 ft), standard	L59 L60
50 m (164 ft), standard with M12 plugs fitted 50 m (164 ft), standard	L63 L64
75 m (246 ft), standard with M12 plugs fitted 75 m (246 ft), standard	L67 L68
150 m (492 ft), standard with M12 plugs fitted 150 m (492 ft), standard	L71 L72
Additional data	
Please add "-Z" to Article No. and specify Order code(s) and plain text.	
Tag name	
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	
 Spanish 	A5E03651152	
• French	A5E03651188	
• Italian	A5E03651190	
Chinese	A5E03922773	

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Flow Measurement

SITRANS F C

Flowmeter SITRANS FC430

Selection and Ordering data		Article No	ບ.	Urd.	code	Selection and Ordering data
SITRANS FC430 Digital coriolis flowmete	er	7 M E 4 7 1	13-			SITRANS FC430 Digital coriolis flow
with SITRANS FCS400 NAMUR complien flow sensor with flange/pipe thread con- nections and compact or remote mount- ing with FCT030 transmitter			ľ			with SITRANS FCS400 NAMUR con flow sensor with flange/pipe thread nections and compact or remote m ing with FCT030 transmitter
Click on the Article No. for the online cor figuration in the PIA Life Cycle Portal.	ר-					Ex approval Non-Ex
Sensor size, Connection size						ATEX II 2GD
DN 15, DN 6 (½", ¼")	٠	3 E				IECEx GDb
DN 15, DN 10 (½", 3/8")	•	3 F				FM, Class 1, Div 1
DN 15, DN 15 (½", ½")		3 G				CSA, Class 1, Zone 1
DN 15, DN 20 (½", ¾") DN 15, DN 25 (½", 1")	•	3 H 3 J				Local User Interface
						Blind Graphical, 240 x 160 pxl
DN 25, DN 25 (1", 1") DN 25, DN 32 (1", 1¼")	*	3 L 3 M				Graphical, 240 x 100 pxi
DN 25, DN 32 (1, 1½) DN 25, DN 40 (1", 1½")	-	3 N				 We can offer shorter delivery times the Quick Ship Symphol • For detivery
DN 50, DN 40 (2", 1½")	•	4 B				the Quick Ship Symbol •. For deta
DN 50, DN 50 (2", 172) DN 50, DN 50 (2", 2")	-	4 D 4 C				
	•	4 J				Selection and Ordering data
DN 80, DN 65 (3", 2½") DN 80, DN 80 (3", 3")		4 J 4 K				Further designs
DN 80, DN 100 (3", 4")		4 L				Please add "-Z" to Article No. and sp code(s).
Process connection EN 1092-1 B1, PN 16		A 0				Cable glands
EN 1092-1 B1, PN 40		A 1				Metric, no glands
EN 1092-1 B1, PN 63		A 2				Metric, plastic
EN 1092-1 B1, PN 100	٠	A 3				Metric, brass/Ni plated
EN 1092-1 B1, PN 160		B 1				Metric, stainless steel
EN 1092-1 D, PN 40		A 5				NPT, no glands NPT, plastic
EN 1092-1 D, PN 63		A 6				NPT, brass/Ni plated
EN 1092-1 D, PN 100		A 7				NPT, stainless steel
EN 1092-1 D, PN 160		A 8				Sofware functions and CT approva
ANSI B16.5, RF, class 150	•	D 1				Standard
ANSI B16.5, RF, class 300	•	D 2				CT standard
ANSI B16.5, RF, class 600 ANSI B16.5, RF, class 900	-	D 3 D 4				I/O configuration Ch1
		E 1				Ca 4 20 mA HART active, SIL certi
ISO228-1 G pipe thread ASME B1.20.1 NPT pipe thread		E 3				Cp 4 20 mA HART passive, SIL ce
		F 1				Ca 4 20 mA HART active
DIN 11851 Hygienic screwed						Cp 4 20 mA HART passive
DIN 32676-C (inch) Hygienic clamped	•	G 1				Only compact versions can be used
DIN 11864-1 Hygienic screwed	•	H1				
DIN 11864-2A BF-A Hygienic flanged metri DIN 11864-3A Hygienic clamped	С	H 2 H 3				
DIN 11864-28 BF-A Hygienic flanged NPS		H 4				
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 JIS B2200/20K		L 2 L 4				
JIS B2200/40K		L G				
JIS B2200/63K		L 7				
Wetted parts material						
AISI 316L/W1.4435/W1.4404 (100 barg max.)	٠	1				
Calibration/Accuracy class						
0.1 % flow, 5 kg/m ³ density	٠		1			
0.1 % flow, 1 kg/m ³ density	٠		4			
Standard fraction calibration			8			
Transmitter/DSL material & mounting style						
Compact, IP67, aluminum	•		C)		
Remote, IP67, aluminum, M12			Ģ	2		

Ord code Colection and Ordering date Ord. code Article No. 7 M E 4 7 1 3 owmeter omplient ad con-mount-٠ A C F ٠ ٠ Н М ٠ 1 ٠ 3

es for configurations designated with etails see page 9/5 in the appendix.

Selection and Ordering data	Order code
Further designs	
Please add "-Z" to Article No. and specify Order code(s).	
Cable glands	
Metric, no glands	A01
Metric, plastic	A02
Metric, brass/Ni plated	A05
Metric, stainless steel	A06
NPT, no glands	A11
NPT, plastic	A12
NPT, brass/Ni plated	A15
NPT, stainless steel	A16
Sofware functions and CT approvals	
Standard	B11
CT standard	B31
I/O configuration Ch1	
Ca 4 20 mA HART active, SIL certified	E04
Cp 4 20 mA HART passive, SIL certified	E05
Ca 4 20 mA HART active	E06
Cp 4 20 mA HART passive	E07

in SIL applications.

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SITRANS F C

Flowmeter SITRANS FC430

Selection and Ordering data	Order code
I/O configuration Ch2, Ch3 and Ch4	
None	F00
aSignal, None, None	F40
aSignal, aSignal, None	F41
aSignal, aSignal, aSignal	F42
aSignal, aSignal, la	F43
aSignal, aSignal, R aSignal, Ia, None	F44 F45
aSignal, Ia, Ia	F46
aSignal, Ia, R	F40 F47
aSignal, R, None	F50
aSignal, R, R	F51
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 pSignal, Ip, R	F66 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, la	F84
aSignal, pSignal, Ip aSignal, pSignal, R	F85 F86
aSignal, Ia, Ip	F87
aSignal, Ip, None	F90
aSignal, Ip, Ip	F91
aSignal, Ip, R	F92
pSignal, pSignal, la	F93
pSignal, Ia, None	F94
pSignal, Ia, Ia	F95
pSignal, Ia, Ip	F96
pSignal, Ia, R	F97

Notes on I/O configurations:

a or p suffix: The I/O module is selected at ordering with either active or passive function.

Signal: The output can be selected for Current (0 or 4 to 20 mA), frequency or pulse function in the menu.

I: Discrete status input to the flowmeter. Functions are selected in the menu including 'Freeze output', 'Reset totalizer'.

R: Relay output for discrete status reporting. Function is selected in the menu, including 'Error', 'High flow warning'.

The MLFB structure for FC430 systems must be filled to this level, including "-Z" options A..., B..., B..., and F...

Selection and Ordering data	Order code
Add-on options and accessories Please add "-Z" to Article No. and specify Order code(s).	
Certificates	
Pressure test certificate CRN Pressure test certificate PED Material certificate EN 10204-3.1	C01 C02 C05
Welding inspection report Factory certificate to EN 10204 2.1 Factory certificate to EN 10204 2.2	C07 C10 C11
Cable	
None	L50
5 m (16.4 ft), standard with M12 plugs fitted 5 m (16.4 ft), standard	L51 L52
10 m (32.8 ft) standard with M12 plugs fitted 10 m (32.8 ft), standard	L55 L56
25 m (82 ft), standard with M12 plugs fitted 25 m (82 ft), standard	L59 L60
50 m (164 ft), standard with M12 plugs fitted 50 m (164 ft), standard	L63 L64
75 m (246 ft), standard with M12 plugs fitted 75 m (246 ft), standard	L67 L68
150 m (492 ft), standard with M12 plugs fitted 150 m (492 ft), standard	L71 L72
Additional data	
Please add "-Z" to Article No. and specify Order code(s) and plain text.	
Tag name	
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.	Article No.		
• English	A5E03361511			
• German	A5E03651143			
 Spanish 	A5E03651152			
• French	A5E03651188			
• Italian	A5E03651190			
Chinese	A5E03922773			

This device is shipped with a Quick Start guide and a CD containing further SITRANS F C literature.

All literature is also available for free at: http://www.siemens.com/flowdocumentation

SITRANS F C

Flowmeter - Accessories/Spare parts

Accessories		
Description	Article No.	
CT plug	A5E31478498	A. A. A
Tamper cover for CT lock- ing. Fits over the M12 plug at both sensor and transmit- ter ends of the remote sys- tem cable		IT I
Bag of glands (metric) in black plastic ¹⁾	A5E03907414	
Bag of glands, (metric) in gray plastic Ex e/i ¹⁾	A5E03907424	
Bag of glands (metric) in AISI 316 SS Ex e/i ¹⁾	A5E03907429	
Bag of glands (metric) in NiPlatedBrass 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	
Bag of glands (NPT) in AISI 316 SS Ex e/i ²⁾	A5E03907467	
Bag of glands (NPT) in NiPlatedBrass Ex e/i ²⁾	A5E03907473	
Standard cable (non-Ex) with M12 plugs, PO insula- tion and PUR sleeve, gray, -40 +80 °C (-40 +176 °F)		
• 5 m (16.4 ft)	A5E03914805	
• 10 m (32.8 ft)	A5E03914850	
• 25 m (82 ft)	A5E03914853	
• 50 m (164 ft)	A5E03914859	
• 75 m (246 ft)	A5E03914861	
• 150 m (492 ft)	A5E03914874	
Standard cable (non-Ex) for termination, PO insulation and PUR sleeve, gray, -40 +80 °C (-40 +176 °F) • 5 m (16.4 ft)	A5E03914833	\bigcirc
• 10 m (32.8 ft)	A5E03914849	
• 25 m (82 ft)	A5E03914854	
• 50 m (164 ft)	A5E03914856	
• 75 m (246 ft)	A5E03914864	
• 150 m (492 ft)	A5E03914873	

Description	Article No.	
Standard cable (Ex) with M12 plugs, PO insulation and PUR sleeve, blue, -40 +80 °C (-40 +176 °F)		
• 5 m	A5E03914929	
• 10 m	A5E03914962	
• 25 m	A5E03914995	
• 50 m	A5E03915004	
• 75 m	A5E03915074	
• 150 m	A5E03915088	
Standard cable (Ex) for ter- mination, PO insulation and PUR sleeve, blue, -40 +80 °C (-40 +176 °F)		\bigcirc
• 5 m	A5E03914945	
• 10 m	A5E03914973	
• 25 m	A5E03914984	
• 50 m	A5E03915015	
• 75 m	A5E03915057	
• 150 m	A5E03915100	
Suitcase for comprehen- sive sales support and training for FC430 It comes in a special suit- case with a fan imple- mented that allows the flowmeter to demonstrate airflow.	A5E31467598	
Suitcase for comprehen- sive sales support and training for FC410. It comes in a special suit- case with an S7-1200 PLC and HMI touch-screen dis- play. The operating code is open-source and can be copied to customers to assist with system integra- tion.	A5E33219071	
Service toolkit for field main- tenance of transmitter and sensor components. Con- tains all hand tools neces- sary for maintenance. Other tools may be required for installation.	A5E03722877	attraction.

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SITRANS F C

Flowmeter - Accessories/Spare parts

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

 $^{1)}\,$ 2 pcs M20; 1 pce M25 with single and dual cable inserts

 $^{2)}$ 2 pcs $^{1\!\!/}_2$ " NPT; 1 pce $^{1\!\!/}_2$ " NPT with single and dual cable inserts

Flowmeter - Accessories/Spare parts

Spare parts - transmitter		
Description	Article No.	
Display and keypad assem- bly 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 alumi- num with Ex glass plate and o-ring seal	A5E03549344	
Transmitter cassette (active) with SIL approved 4 20 mA output and HART 7.2 ¹⁾	A5E03549357	
Transmitter cassette (pas- sive) 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 alumi- num with 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	Total.

Spare parts - transmitter FCT030

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 hous- ing 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 replace- ment M12 connection for FCT030 transmitter remote version	A5E03906104				
Remote terminal house - M20	A5E03906112	<u></u>			
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 alumi- num with o-ring seal	A5E03549295				

		\bigcirc
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 sen- sor; 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

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