Flowmeter SITRANS FC410

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[1] – 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.

[1] 1 kg/s of water flow equals 0.001 m³/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_2 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 ±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	[Ω/km]	59
Characteristic impedance	[W]	100 @ 1 MHz
Insulation resistance	[MΩ/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.

Architecture	Compact configuration without display
Power Supply	24 V DC
Communication	Modbus RTU, RS 485 2-wire plus 2-wire power
Number of process variables	4
Measurement of	• Mass flow • Volume flow • Density • Process media temperature
Galvanic isolation	All inputs and outputs are galvanically isolated, isolation voltage 500 V.
Cut-off	Independent for mass and volume flowrates
Low-flow	0…9.9 % of rated flow
Totalizer	One internal counter for net mass flow
Zero point adjustment	Via command from host system
Ambient temperature	
Operation	-40 ... +60 °C (-40 ... +140 °F) (humidity max. 95 %)
Storage	-40 ... +70 °C (-40 ... +158 °F) (humidity max. 95 %)
Enclosure	
Material	Aluminum
Rating	IP67/NEMA 4X to IEC 529 and DIN 40050 (1 mH$_2$O for 30 min.)
Mechanical load	18 ... 1 000 Hz random, 3.17 g RMS, in all directions
Supply voltage	
Supply	24 V DC ±20%
Fluctuation	No limit
Power consumption	1.25 W
EMC performance	
Emission	EN/IEC 61000-6-4 (Industry)
Immunity	EN/IEC 61000-6-2 (Industry)
NAMUR	Within the value limits according to "General requirements" with error criteria A in accordance with NE 21
Environment	Within the value limits according to "General requirements" with alarm criteria A in accordance with NE 21
Environmental conditions acc. to IEC/EN/UL 61010-1	• Altitude up to 2 000 m • Pollution degree 2
Cable glands Available in Nylon, Nickel plated brass or stainless steel	• M20 • ½" NPT

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
SITRANS FC410 Digital coriolis flowmeter	7ME4611-	
with SITRANS FCS400 Standard flow sensor with hygienic and flange/pipe thread connections and compact or remote mounting with FCT010 transmitter	▪▪▪▪▪- ▪▪▪▪ ▪▪▪	

Sensor size, connection size

DN 15, DN 6 (½", ¼")	3 E
DN 15, DN 10 (½", 3/8")	3 F
DN 15, DN 15 (½", ½")	3 G
DN 15, DN 20 (½", ¾")	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")	4 J
DN 80, DN 80 (3", 3")	4 K
DN 80, DN 100 (3", 4")	4 L

Process connection

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

Wetted parts material

AISI 316L/W1.4435/W1.4404	1
Hastelloy C22/W2.4602	3

Calibration/Accuracy class

0,1 % flow, 5 kg/m³ density	1
0,1 % flow, 1 kg/m³ density	4

Selection and Ordering data	Article No.	Ord. code
SITRANS FC410 Digital coriolis flowmeter	7ME4611-	
with SITRANS FCS400 Standard flow sensor with hygienic and flange/pipe thread connections and compact or remote mounting with FCT010 transmitter	▪▪▪▪▪- ▪▪▪▪ ▪▪▪	

Transmitter/DSL material & mounting style

Compact, IP67, aluminum	D

Ex approval

Non-Ex	A
ATEX II 2GD	C
IECEx GDb	F
FM, Class 1, Div 1	H
CSA, Class 1, Zone 1	M
NEPSI, Class 1, Zone 1	N
INMETRO, Class 1, Zone 1	P
KOSHA	T

Local User Interface

Blind	1

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**
Integral M12 skt	**A20**
Sofware functions and CT approvals	
Standard	**B11**
I/O configuration Ch1	
Modbus RTU RS 485	**E14**
I/O configuration Ch2, Ch3 and Ch4	
None	**F00**
Certificates	
Pressure test certificate CRN	**C01**
Pressure test certificate PED	**C02**
Material certificate EN 10204-3.1	**C05**
Cable	
5 m (16.4 ft), standard with M12 plugs fitted	**L51**
5 m (16.4 ft), standard	**L52**
10 m (32.8 ft) standard with M12 plugs fitted	**L55**
10 m (32.8 ft), standard	**L56**
25 m (82 ft), standard with M12 plugs fitted	**L59**
25 m (82 ft), standard	**L60**
50 m (164 ft), standard with M12 plugs fitted	**L63**
50 m (164 ft), standard	**L64**
75 m (246 ft), standard with M12 plugs fitted	**L67**
75 m (246 ft), standard	**L68**
150 m (492 ft), standard with M12 plugs fitted	**L71**
150 m (492 ft), standard	**L72**
300 m (984 ft), standard with M12 plugs fitted	**L75**
300 m (984 ft), standard	**L76**
Additional data	
Please add "**-Z**" to Article No. and specify Order code(s) and plain text.	
Tag name	
Tag name plate, stainless steel	**Y17**
Customer specific calibration	
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**

Flow Measurement
SITRANS FC

Flowmeter SITRANS FC410

Selection and Ordering data	Article No.	Ord. code
SITRANS FC410 Digital coriolis flowmeter	**7 M E 4 6 2 1 -**	
with SITRANS FCS400 Hygienic version with Ra < 0.8 μm, 3A approved, and compact or remote mounting with FCT010 transmitter	▉▉▉▉▉ - ▉▉▉▉ ▉▉▉	
Sensor size, connection size		
DN 15, DN 10 (½", 3/8")	3 F	
DN 15, DN 15 (½", ½")	3 G	
DN 15, DN 20 (½", ¾")	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")	4 J	
DN 80, DN 80 (3", 3")	4 K	
Process connection		
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	
Wetted parts material		
AISI 316L/W1.4435/W1.4404	1	
Hastelloy C22/W2.4602	3	
Calibration/Accuracy class		
0,1 % flow, 5 kg/m³ density	1	
0,1 % flow, 1 kg/m³ density	4	
Transmitter/DSL material & mounting style		
Compact, IP67, aluminum	D	
Ex approval		
Non-Ex	A	
ATEX II 2GD	C	
IECEx GDb	F	
FM, Class 1, Div 1	H	
CSA, Class 1, Zone 1	M	
NEPSI, Class 1, Zone 1	N	
INMETRO, Class 1, Zone 1	P	
KOSHA	T	
Local User Interface		
Blind	1	

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**
Integral M12 skt	**A20**
Sofware functions and CT approvals	
Standard	**B11**
I/O configuration Ch1	
Modbus RTU RS 485	**E14**
I/O configuration Ch2, Ch3 and Ch4	
None	**F00**
Certificates	
Pressure test certificate CRN	**C01**
Pressure test certificate PED	**C02**
Material certificate EN 10204-3.1	**C05**
Cable	
5 m (16.4 ft), standard with M12 plugs fitted	**L51**
5 m (16.4 ft), standard	**L52**
10 m (32.8 ft) standard with M12 plugs fitted	**L55**
10 m (32.8 ft), standard	**L56**
25 m (82 ft), standard with M12 plugs fitted	**L59**
25 m (82 ft), standard	**L60**
50 m (164 ft), standard with M12 plugs fitted	**L63**
50 m (164 ft), standard	**L64**
75 m (246 ft), standard with M12 plugs fitted	**L67**
75 m (246 ft), standard	**L68**
150 m (492 ft), standard with M12 plugs fitted	**L71**
150 m (492 ft), standard	**L72**
300 m (984 ft), standard with M12 plugs fitted	**L75**
300 m (984 ft), standard	**L76**
Additional data	
Please add "**-Z**" to Article No. and specify Order code(s) and plain text.	
Tag name	
Tag name plate, stainless steel	**Y17**
Customer specific calibration	
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
SITRANS FC410 Digital coriolis flowmeter	7ME4711-	
with SITRANS FCS400 NAMUR complient flow sensor with flange/pipe thread connections and compact or remote mounting with FCT010 transmitter	▢▢▢▢- ▢▢▢▢ ▢▢▢	

Sensor size, connection size

DN 15, DN 6 (½", ¼")	3 E
DN 15, DN 10 (½", 3/8")	3 F
DN 15, DN 15 (½", ½")	3 G
DN 15, DN 20 (½", ¾")	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")	4 J
DN 80, DN 80 (3", 3")	4 K
DN 80, DN 100 (3", 4")	4 L

Process connection

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

Wetted parts material

AISI 316L/W1.4435/W1.4404	1
Hastelloy C22/W2.4602	3

Calibration/Accuracy class

0,1 % flow, 5 kg/m³ density	1
0,1 % flow, 1 kg/m³ density	4

Selection and Ordering data	Article No.	Ord. code
SITRANS FC410 Digital coriolis flowmeter	7ME4711-	
with SITRANS FCS400 NAMUR complient flow sensor with flange/pipe thread connections and compact or remote mounting with FCT010 transmitter	▢▢▢▢- ▢▢▢▢ ▢▢▢	

Transmitter/DSL material & mounting style

Compact, IP67, aluminum	D

Ex approval

Non-Ex	A
ATEX II 2GD	C
IECEx GDb	F
FM, Class 1, Div 1	H
CSA, Class 1, Zone 1	M
NEPSI, Class 1, Zone 1	N
INMETRO, Class 1, Zone 1	P
KOSHA	T

Local User Interface

Blind	1

Flow Measurement
SITRANS FC

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**
Integral M12 skt	**A20**
Sofware functions and CT approvals	
Standard	**B11**
I/O configuration Ch1	
Modbus RTU RS 485	**E14**
I/O configuration Ch2, Ch3 and Ch4	
None	**F00**
Certificates	
Pressure test certificate CRN	**C01**
Pressure test certificate PED	**C02**
Material certificate EN 10204-3.1	**C05**
Cable	
5 m (16.4 ft), standard with M12 plugs fitted	**L51**
5 m (16.4 ft), standard	**L52**
10 m (32.8 ft) standard with M12 plugs fitted	**L55**
10 m (32.8 ft), standard	**L56**
25 m (82 ft), standard with M12 plugs fitted	**L59**
25 m (82 ft), standard	**L60**
50 m (164 ft), standard with M12 plugs fitted	**L63**
50 m (164 ft), standard	**L64**
75 m (246 ft), standard with M12 plugs fitted	**L67**
75 m (246 ft), standard	**L68**
150 m (492 ft), standard with M12 plugs fitted	**L71**
150 m (492 ft), standard	**L72**
300 m (984 ft), standard with M12 plugs fitted	**L75**
300 m (984 ft), standard	**L76**
Additional data	
Please add "**-Z**" to Article No. and specify Order code(s) and plain text.	
Tag name	
Tag name plate, stainless steel	**Y17**
Customer specific calibration	
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**

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)	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
• 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
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 termination, PO insulation and PUR sleeve, blue, -40 ... +80 °C (-40 ... +176 °F)	
• 5 m	A5E03914945
• 10 m	A5E03914973
• 25 m	A5E03914984
• 50 m	A5E03915015
• 75 m	A5E03915057
• 150 m	A5E03915100

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	A5E03830623
• DN 25 electric with 230 V AC controller	A5E03830624
• DN 50 electric with 230 V AC controller	A5E03830625
• DN 80 electric with 230 V AC controller	A5E03830626
• DN 15 electric with 115 V AC controller	A5E32877520
• DN 25 electric with 115 V AC controller	A5E32877556
• DN 50 electric with 115 V AC controller	A5E32877557
• DN 80 electric with 115 V AC controller	A5E32877561

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	FDK:085U1016
	DN 15	FDK:085U1017
	DN 25	FDK:085U1019
	DN 32	FDK:085U1020
	DN 40	FDK:085U1021
	DN 50	FDK:085U1022
	DN 65	FDK:085U1023
Mating parts for hygienic clamp ISO 2852 Includes: • 2 clamps • 2 mating parts • 2 EPDM gaskets	25 mm	FDK:085U1029
	40 mm	FDK:085U1031
	50 mm	FDK:085U1032
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