



# Structure SITRANS FC portfolio overview flyer

A new chapter in the world of coriolis flow measurement

SITRANS FC is the range of Siemens coriolis mass flowmeters that provides high performance process measurements. The extensive portfolio provides multi-parameter measurement solutions for all fluid types, including liquids, gases and multi-phase fluids. The SITRANS FC family provides an enormous amount of flexibility, in terms of sizes, performance level and sensor types, as well as approvals & certification. Each SITRANS FC Coriolis Mass Flowmeter comprises one SITRANS FCSX00 Sensor and one SITRANS FCTOX0 transmitter.

All sensors can be combined with compact or remote mounted transmitters (SITRANS FCS100 precision sensors are compatible with remote mounted transmitters only), guaranteeing a maximum of flexibility to exactly meet the needs of your measurement task.

## Your benefits at a glance

<b>Engineering and project management</b>	3 to 6 measurements in one device reduces spending on each measured value	Use Siemens measurement experts to minimize project expenditure	Intuitive sizing software helps to optimise specification
<b>Installation</b>	Compact tube design helps OEMs to reduce skid footprint	Flexible mounting position lowers installation complexity	Adaptable choice of process connections avoids costly modifications to existing plant
<b>Configuration and commissioning</b>	Easy setup wizard shortens commissioning time	Siemens Process Device Manager (PDM) for simple plant wide configuration	MicroSD card for easy data transfer and fast start-ups
<b>Operation</b>	Zero point quality and high accuracy ensure user product quality with less waste	Intelligent dynamic range maintains performance when re-scaling production	Self-verification alerts via PDM to process upsets, resulting in reduced downtime
Maintenance and asset management	Tube health check monitors key diagnostics for effective predictive maintenance and unplanned downtime	Consistent design throughout with MicroSD card functions combine to optimise technician training	Interchangeable parts and extensive portfolio contribute to reduced spares cost

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## SITRANS FCS100: High-precision measurement of very small quantities.

Extremely small dual bent Coriolis flowmeter series for highly accurate measurement at lowest flows. The dual tube design compensates for fluctuations of density, temperature, pressure, and environment conditions. This provides a consistent repeatable and accurate measurement especially for small size Coriolis flowmeters.



<b>Measuring range</b>	0.01 to 1500 kg/h	<b>Sensor size</b>	DN1, DN2, DN4, DN6, DN8
<b>Maximum process temp.</b>	-50 to +260 °C -58 to +500 °F	<b>Maximum pressure</b>	Up to 285 bar Up to 4183 psi
<b>Wetted materials</b>	Alloy 22 and 316L/1.4404	<b>Build-in length</b>	Standard According Namur NE132 Customer specific
<b>Communication protocols</b>	HART Profibus PA Modbus Profinet	<b>Features</b>	Functional Safety SIL2/3 Custody Transfer (NTEP) Namur NE 21, NE 95 Tube Health Check
<b>Connections</b>		<b>Approvals</b>	
Threaded	Internal G (BSPP) Internal NPT	Ex-approvals	ATEX, IECEx, FM, Korea Ex
Flanges	ASME B15.5 EN 1092-1 JIS B 2220	Marine (class 2 and 3)	Det Norske Veritas Lloyds Register Bureaux Veritas American Bureaux of Shipping Korean Register
Hygienic	DIN32676 Clamp		

## SITRANS FCS500: Cost-efficient multi-parameter measurement

The versatile Coriolis flowmeter with superior turndown and lowest pressure drop. Ideal for a broad range of standard applications, this series is a flexible and cost-effective solution for highly accurate flow and density measurements. Features such as concentration measurement or the Tube Health Check function allow the meters to be adjusted to your needs. Specifically designed and certified for food & beverage, biotechnology and pharmaceutical utility applications. This series is the right choice for the daily constraints of hygienic processes ensuring continuous product quality and minimizing losses.



<b>Measuring range</b>	0.8 to 255 000 kg/h	<b>Sensor size</b>	DN10, DN15, DN25, DN40, DN65, DN80
<b>Maximum process temp.</b>	-70 to +200 °C -94 to +392 °F	<b>Maximum pressure</b>	Up to 100 bar Up to 1450 psi
<b>Wetted materials</b>	316L SS/1.4404	<b>Namur NE132 build-in length</b>	Standard According Namur NE132 Customer specific
<b>Communication protocols</b>	HART Profibus PA Modbus Profinet	<b>Features</b>	Functional Safety SIL2/3 Custody Transfer (NTEP) Namur NE 21, NE 95 Tube Health Check
<b>Connections</b>		<b>Approvals</b>	
Threaded	Internal G (BSPP) Internal NPT	Ex-approvals	ATEX, IECEx, FM, Korea Ex
Flanges	ASME B15.5, EN 1092-1 JIS B 2220	Hygienic	3A EHEDG

## SITRANS FCS600: Precise measurement under extreme conditions

Highest performance under demanding conditions. With the most robust and durable design, this gauge offers unrivaled performance for demanding and critical applications e.g. for precise measurements in high pressure applications. Safety is always a concern, especially when operating under high pressures. Therefore, this series has been designed to meet the highest security requirements. Combined with advanced diagnostics such as the "tube health check" function, operations are safely under control at all times.



<b>Measuring range</b>	1.5 to 170 000 kg/h	<b>Sensor size</b>	DN15, DN25, DN40, DN65
<b>Maximum process temp.</b>	-196 to +350 °C -321 to +662 °F	<b>Maximum pressure</b>	up to 700 bar up to 10000 psi
<b>Wetted materials</b>	316L SS/1.4404 or Alloy 22	<b>Namur NE132 build-in length</b>	Standard According Namur NE132 Customer specific
<b>Communication protocols</b>	HART Profibus PA Modbus Profinet	<b>Features</b>	Functional Safety SIL2/3 Custody Transfer (NTEP) Namur NE 21, NE 95 Tube Health Check
<b>Connections</b>		<b>Approvals</b>	
Threaded	Internal G (BSPP) Internal NPT	Ex-approvals	ATEX, IECEx, FM, Korea Ex
Flanges	ASME B15.5, EN 1092-1, JIS B 2220	Hygienic	3A EHEDG
Hygienic	DIN32676 Clamp ISO2852 Clamp	Marine (class 2 and 3)	Det Norske Veritas Lloyds Register Bureaux Veritas American Bureaux of Shipping Korean Register

## SITRANS FCS700: Large quantities in small footprints

Delivering best-in-class accuracy and most flexible installation at high flow rates. The unmatched accuracy at the low end of the measuring range offers maximum flexibility from engineering to final operation. This series unifies a long service life with low maintenance costs and reliable performance.



<b>Measuring range</b>	125 to 1 100 000 kg/h	<b>Sensor size</b>	DN100, DN150, DN200
<b>Maximum process temp.</b>	-70 to +350 °C -94 to +662 °F	<b>Maximum pressure</b>	Up to 100 bar Up to 1450 psi
<b>Wetted materials</b>	316L SS/1.4404 or Alloy 22	<b>Namur NE132 build-in length</b>	Standard According Namur NE132 Customer specific
<b>Communication protocols</b>	HART Profibus PA Modbus Profinet	<b>Features</b>	Functional Safety SIL2/3 Custody Transfer (NTEP) Namur NE 21, NE 95 Tube Health Check
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Hygienic			

## SITRANS FC transmitters deliver market-leading accuracy and ease of use.

Tailor them to your exact needs with a wide range of enclosures, communication options and approvals.

Delivering best-in-class accuracy and most flexible installation at high flow rates. The unmatched accuracy at the low end of the measuring range offers maximum flexibility from engineering to final operation. This series unifies a long service life with low maintenance costs and reliable performance.

SITRANS FCT020	SITRANS FCT040 ( In addition to FCT020 features)
Multilingual wizard for easy setup and guidance through the main configuration	Tube health check and key diagnostics for inline meter verification without disturbing running measurements
Event Management as unique and useful support to run the process effectively and safely	Extensive range of optional functions selectable at time of ordering
Data mobility provided by microSD card for easy transfer to other devices for fast setup or to pc for in-depth process analysis or remote services	Batching function and Viscosity function
Widest range of I/O combinations in the market for most flexible adjustment to the existing system periphery	Dynamic Pressure Compensation for consistently accurate and stable measurement even with significant fluctuations in operating pressures
Universal power supply to install the device anywhere in the world	Inline concentration measurement
Hart, Modbus communication	Integrated net oil computing acc. API standard
NAMUR NE95 compliance, SIL 2 and SIL 3 compliance	Hart, Modbus, Profibus PA communication

## SITRANS FC flowmeter systems

Each SITRANS FC Coriolis Mass Flowmeter is built from one Sitrans FCS sensor and one Sitrans FCT transmitter.

FCS sensors have a common twin tube U-shaped design. The four available sensor types are defined by size, wetted part materials, pressure & temperature rating, and process connection type. Generally, sensors can be combined with compact or remote mounted transmitters. Two transmitter versions, FCT020 standard and FCT040 advanced, provide a choice of performance, measurement functions, housing material and output types.

### Compact example:

FCS600 resistant sensor with FCT020 standard transmitter becomes a complete FC620 Coriolis flow meter. Specification of sensor size, transmitter and process connections is required.

### Remote example:

FCS600 resistant sensor with FCT040 advanced transmitter becomes a complete FC640 Coriolis flow meter. Specification of sensor size, terminal housing design, transmitter, process connections and cable are required.

## The SITRANS FC Coriolis family provides great flexibility.

Your application need is covered, with a wide range on sensor sizes from DN1 up to DN250 including various process connections, wetted part materials and temperature ranges. You can choose from different performance levels and can select several optional functions.



**Published by  
Siemens AG**

Digital Industries  
Process Automation  
Östliche Rheinbrückenstr. 50  
76187 Karlsruhe  
Germany

For the U.S. published by  
Siemens Industries Inc.  
100 Technology Drive  
Alpharetta, GA 30005  
United States  
Artical No. PCMD-B10040-00-7600  
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