



PROCESS INSTRUMENTATION

Higher productivity
at a lower cost.

SITRANS FX330 – The all-in-one solution for steam, gas and liquid.

www.usa.siemens.com/vortex

SIEMENS

Enhanced energy and cost efficiency

Take your steam, gas and liquid measurements to a whole new level with the new, digitally based SITRANS FX330 vortex flow meter from Siemens. Ideal for HVAC and auxiliary systems and versatile enough for use in many process applications, our reliable all-rounder combines flow, pressure and temperature monitoring into one user-friendly, two-wire device. You benefit from enhanced energy and process efficiency, greater accuracy and significant cost savings.

Safety built right in

Designed from the ground up to be fully compliant with the IEC 61508 SIL 2 safety standard, the SITRANS FX330 is a perfect choice for hazardous installations. As a unique feature, the unit switches easily between SIL and non-SIL modes without the need for an on-site visit from a service technician.

Minimal downtime

Keep your processes up and running – and your costs under control. The SITRANS FX330 provides redundant storage of all calibration and configuration data within the display memory and electronic modules, enabling quick-and-easy transfer of information to replacement devices.



With the SITRANS FX330 you also get

- Integrated pressure and temperature compensation for lower installation costs and increased accuracy
- Integrated online density compensation, even for saturated steam – providing superior system accuracy and low maintenance costs
- Advanced signal filtering technology secures stable measurements under fluctuating process conditions
- Integrated reduction of nominal diameter results in a large turndown ratio, reducing installation costs and the potential for leakage
- Sensor designed for low pressure loss to increase operational efficiency
- Comprehensive standard communication options including HART, Profibus PA and Foundation Fieldbus¹ for efficient process management, advanced diagnostics and maximum process reliability
- Around-the-clock support 7 days a week by our network of specialists in 190 countries

¹Profibus PA and Foundation Fieldbus in preparation

HART
COMMUNICATION PROTOCOL

PROFIBUS

FOUNDATION

The new SITRANS FX330 integrates an intelligent, high-performance digital transmitter with a robust, fully welded sensor for all-in-one measurement of flow, pressure and temperature.

A wide range of sizes or a space-saving design

Flange version with online density compensation in a wide range of sizes



All the advantages of the flange version in a space-saving sandwich design



Measuring method	Kármán Vortex Street	
Measurement of	Volume flow, mass flow, corrected volume flow, density, temperature, pressure and heat energy	
Sizes	DN 15 - 300 (½" - 12")	DN 15 - 100 (½" - 4")
Display and keypad	High-resolution graphical display and 4 operating keys (alternative use magnetic pen)	
Connection	EN 1092-1; ASME B16.5	Wafer design (centering rings included)
Pressure rating	PN 10 - PN 100 - Class 150 - 600	
Material sensor	Stainless steel 1.4404 (316 L), Hastelloy C22 on request	
Material transmitter	Die-cast aluminium (Stainless steel in preparation)	
Accuracy	Steam and gases: ±1% Liquids: ±0.75%	
Medium temperature	-40 °C - 240 °C (-40 °F - 464 °F)	
Enclosure rating	IP 66 / IP 67 (NEMA 6)	
Remote transmitter	Connection cable up to 50 m (164 ft)	
Temperature sensor	Standard integrated temperature sensor	
Pressure sensor	Optional integrated pressure sensor with or without isolation valve	
Current output	4...20 mA	
Digital output	Pulse (max. 1000 Hz), frequency, status, limit switch	
Communication	HART 7, Profibus PA and Foundation Fieldbus ¹	
Ex Approvals	ATEX II2 G Ex ia - QPS IS Class I Div.1 - IECEx II2 G Ex ia ATEX II2 G Ex d - QPS XP Class I Div.1 - IECEx II2 G Ex d ATEX II3 G Ex nA - QPS NI Class I Div. 2 - IECEx II3 G Ex nA ATEX II2 D Ex tb - QPS DIP Class II, III Div. 1 - IECEx II2 D Ex tb	
Certifications	SIL 2 certified	

¹Profibus PA and Foundation Fieldbus in preparation



Maintenance couldn't be easier: the pressure sensor can be replaced without ever demounting the meter from the process line.



The user-friendly interface features a high-resolution graphical display with highly legible characters, a rotatable screen and a wide range of language options.



Business is based on trust

A reliable partnership has many aspects: Being there when you're needed. Helping out even in the toughest situations. Reacting flexibly to provide what's expected in any situation.

Siemens has all the qualities that make for a successful partnership. And the results speak for themselves: dependable solutions that are tailored precisely to customer requirements.

Seamless integration into your installation

With its enhanced digital capabilities the SITRANS FX330 can be seamlessly integrated into many operating environments and automation systems, making it ideal for a broad range of HVAC, auxiliary, chemical, and oil and gas installations.

Optimize your HVAC and auxiliary installations

To maximize the energy efficiency of any production process in any industry, you first must optimize the HVAC and auxiliary installations that provide it with vital behind-the-scenes support. One of the only flow technologies capable of measuring saturated and superheated steam, the versatile SITRANS FX330 is well suited for applications such as steam boilers and steam cleaners and also excels at monitoring compressed air and supply gases.

Your benefits

- Maintenance-free sensor design with a high level of durability and no moving parts
- 2-wire device with integrated pressure and temperature sensors eliminates the need for cables and improves the steam billing process
- Easy-to-use interface utilizes HART for effective communication
- Isolation valve allows for inline checks and pressure sensor calibration with no process shutdown
- Cost-efficient energy calculation including net heat measurement

Safety assurance for the chemical industry

HVAC and auxiliary systems consume roughly two-thirds of the total energy required to operate a chemical production process. Integrate the SITRANS FX330 into an automation or energy supply solution and use your resources more efficiently. Since the flow meter is SIL-2 certified for operation in hazardous areas, it's flexible and durable enough for installation almost anywhere the chemical industry needs to measure flow.

Your benefits

- Highly cost-efficient 2-wire design with integrated pressure and temperature measurement
- Sensor available in stainless steel or Hastelloy C22
- Self-diagnostics provide valuable information about the installation at start-up
- Meets NAMUR NE 43 requirements
- All sensors and electronics can be replaced without demounting the device from the process line, resulting in easier maintenance

Rugged and durable for harsh oil & gas applications

The wear-resistant SITRANS FX330 is designed in rugged stainless steel for uninterrupted performance despite the challenging conditions so typical of the oil and gas industry, including high pressures, high temperatures, fluctuating process conditions and corrosive environments. The versatile SITRANS FX330 monitors the auxiliary systems that support many oil and gas processes but can also be incorporated directly into certain upstream and downstream applications, including flarestacks, dehydrators, high-pressure gas and liquid pipelines, test separators, power generation from gas in oil fields, and refineries.

Your benefits

- Rugged sensor design resistant to potential hammer effects
- Sensor design minimizes pressure loss for more efficient operation
- Advanced Vortex Frequency Detection (AVFD) intelligent signal processing technology secures stable and reliable readings free from external disturbances
- Isolation valve for field checks and calibration of pressure sensor with no need for process shutdown



SIL 2, ATEX, QPS and IECEx approvals make installation possible in a variety of hazardous locations.

Measuring everything that matters:

usa.siemens.com/pi

Siemens Process Instrumentation offers best-in-class measurement and seamless integration into your automation system. We are the total solution provider for flow, level, pressure, temperature, weighing, positioners and more.

Legal Manufacturer

Siemens Industry, Inc.
100 Technology Drive
Alpharetta, GA 30005
United States of America
Telephone: +1 (800) 365-8766
usa.siemens.com/pi
Order No. PIBR-B10111-0322

This document contains a general description of available technical options only, and its effectiveness will be subject to specific variables including field conditions and project parameters. Siemens does not make representations, warranties, or assurances as to the accuracy or completeness of the content contained herein. Siemens reserves the right to modify the technology and product specifications in its sole discretion without advance notice.