

# Proven continuous protection for general industry



million  
in one

# safe GUARD

Process protection devices act as an early warning system to avoid costly process interruptions and equipment breakdown. SITRANS AS 100 reacts instantly to changes in solids flow to warn of blockages, product absence or equipment failure such as burst filter bags.

SITRANS CU 02 processes signals from the sensor, providing relay and analog outputs for interface into a process. The two relays are fully programmable and independent of each other. Low maintenance, easy to install and superior cost-effective protection, SITRANS AS 100 and SITRANS CU 02 - a million in one.

[www.siemens.com/processprotection](http://www.siemens.com/processprotection)

## SITRANS AS 100

Stable, high frequency (75 to 175 kHz) acoustic sensor for flow detection. The 0 to 10 V DC analog output works with SITRANS CU 02 or directly with the customer's PLC.

- Easy, low-cost installation
- Non-invasive mounting – screw-in, bolt on, weld or bond in place with optional mounting disc – ideal for hazardous or hygienic environments
- Low and high sensitivity ranges
- Immune to plant vibrations
- Compact stainless steel construction for harsh environments
- Extended temperature and hazardous area options available
- IP68 (waterproof) rated

## SITRANS CU 02

Flexible control as a standalone system or interfaced with the customer's DCS or PLC.

- Two programmable relays and isolated 4 to 20 mA DC analog output
- Ability to mount the control unit up to 500 m (1500 ft) from the sensor
- DIN rail mounting provides easy installation



# SIEMENS

# Technical specifications

<b>SITRANS AS 100</b>	
<b>Power</b>	
	■ 20 to 30 V DC, 18 mA (typical)
<b>Model</b>	
Standard	Standard operating temperature range
Extended	Extended operating temperature range
<b>Operation</b>	
Relative sensitivity	0.5%/°C of reading, average over the operating range
Output	■ Analog, 0.08 to 10 V DC nominal ■ 100 K $\Omega$ minimum load impedance
<b>Operating conditions</b>	
Ambient temperature for enclosure	Standard: -20 to 80 °C (-4 to 176 °F) Extended: ■ -40 to 125 °C (-40 to 257 °F) CE only ■ -30 to 120 °C (-22 to 248 °F) FM/CSA/ATEX options
<b>Design</b>	
Weight	0.4 kg (1 lb)
Enclosure	AISI 304 (1.406) stainless steel (303 stainless steel on hazardous rated version)
Ingress Protection	IP68 (waterproof)
Cable	Standard: 4 m (13 ft) cable, PVC jacketed, 3 twisted pairs, 24 AWG (0.25 mm <sup>2</sup> ), shielded Extended: 4 m (13 ft) cable, thermoplastic elastomer jacketed, 6 conductor, 24 AWG (0.25 mm <sup>2</sup> ) conductor, shielded
<b>Approvals</b>	
	CE, optional FM/CSA Class II, Div. 1, Group E, F, and G, ATEX II 3D

<b>SITRANS CU 02</b>	
<b>Power</b>	
Supply voltage	100, 115, 200, 230 V AC $\pm$ 15% 50/60 Hz, factory set
Power consumption	Max. 10 VA
<b>Input</b>	
	0 to 10 V DC, from sensor
<b>Output</b>	
Sensor excitation	26 V DC
Output signal	■ 4 to 20 mA isolated output, 750 $\Omega$ max. ■ 2 form "C" relays – latching or non-latching – 5 amp at 250 V AC, non-inductive
<b>Operating conditions</b>	
Ambient temperature	-20 °C to 50 °C (-4 to 122 °F)
Relative humidity	80% for temperatures up to 50 °C
Degree of protection	IP20
Installation category	II
Pollution degree	2
<b>Design</b>	
Weight	550 g (18 oz)
Material enclosure	Polycarbonate
Cable	3 twisted pair, 24 AWG (0.25 mm <sup>2</sup> ), shielded. Mount up to 500 m (1500 ft) from sensor
<b>Approvals</b>	
	CE, CSA <sub>NRTL</sub> IC

Specifications are subject to change without notice.  
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Certification No. 002284

# Million in one

## Process protection technology with field experience

Siemens instruments come with extensive field experience with a million instruments in industrial applications.

Designed to withstand the sustained rigors of heavy primary industries, these products have proven their reliability in a wide range of harsh applications including the mining, mineral processing and cement industries. They are also used extensively in wet and dry food processing and petrochemical industries.

With this experience, we understand the importance of reliability, and we know what it takes to make a trusted and accurate instrument for demanding applications.

