

Flow Switch System



Product information

The Flow Switch System is designed for monitoring and ensuring adequate airflow passing through the outer piping of double-wall piping systems.

The Flow Switch System is made of 316L stainless steel and consists of a number of separate flow switch units mounted in one or several pipes depending on system type. Each unit is a single instrument set up to detect air flow. The instrument is equipped with two field adjustable alarm set points and relay outputs. One relay output is used to monitor the flow, the second is used to monitor a second flow or the temperature level. The flow switch is a fixed position, single-point flow, level, and temperature switch. The operation of the sensing element is based on the thermal dispersion principle:

A low-powered heater is used to produce a temperature differential between two Resistance Temperature Detectors (RTDs). The RTD temperature differential varies as a function of forced convection for flow measurement and as a function of fluid thermal conductivity for level and interface measurement.

Description	FSS
Piping	
Compressed Air Intake Pipe / Double Wall Pipe	Ranges from ½" to 6" depending on type
Piping Length, Compressed Air Intake and Double Wall Pipe	Depending on type
Material	Stainless Steel, 316L / 1.4404
Installation	Vertical or horizontal
Assembly	Welding (flanges on request)
Operating Pressure	1.013 mbara
Weight	Depending on type
Flow Monitoring (Flow Switch)	
Number of Flow Switch	1, 2 or 3 (depending on type)
Media	Atmospheric air
Operating Principle	Thermal dispersion (RTD)
Flow Direction	Forward or reverse
Range	0.1 to 37 m/s
Alarm Level (Factory Setting)	0.3 m/s
Accuracy (Factory Setting)	+/- 0.1 m/s
Material	Stainless Steel, 316L / 1.4404
Design Pressure, Sensing Element @ 60°C	240 barg
Junction Box	
No. of Channels	3
Power Supply Input	18-32 V DC
Power Supply Output	24 V DC
Max Current	5 A DC
No. of Cable Glands / Cable Gland Size	6 / M20 (6-13 mm)
Connection Cable	
Type	XTCuZ1-K
Cable Dia.	10.9 mm
Supplied Length Per System	Optional
Environment	
Operating Temperature: Flow Switch Control Circuit	-40°C to +60°C
Operating Temperature: Flow Switch Sensing Element	-40°C to +177°C
Operating Temperature: Juncting box	-20°C to +60°C
Relative Humidity	0-100%
Protection Degree (IEC 60529)	IP66
Ex Classification	
Flow Switch (IECEX)	Ex d IIC T5/T2 // IECEx CSA 07.0011
Flow Switch (ATEX)	II 2 G Ex d IIC T6...T2 // KEMA 02ATEX2166
Junction Box	None (To be installed in safe area)