

The Need For Every
Process Industry

SPINK CONTROLS®

An ISO 9001:2015 Certified Company



DP BASED GAS FLOWMETER

MODEL: SC / R - 1600

FLOW

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Spink Controls DP-based Gas Flowmeter is specifically designed to measure the flow of clean gases that are noncorrosive to silicon. The differential pressure (ΔP) is measured using a high-precision piezoresistive pressure-sensing element, where the applied pressure is converted into a differential voltage signal, approximately proportional to the pressure: $V_d \propto \Delta P$

This signal undergoes multi-stage correction and conditioning to derive the gas flow rate.

Using the standard flow equation:

$$Q = C \sqrt{\frac{\Delta P}{\delta}}$$

Where:

- Q = Flow rate
- C = Flow coefficient
- ΔP = Measured differential pressure
- δ = Gas density

APPLICATIONS

- Gas flow measurement in process industries
- Monitoring of compressed air, nitrogen, and other clean gases
- HVAC systems, cleanroom monitoring, and research applications

KEY FEATURES

- Accurate and stable piezoresistive ΔP sensing technology.
- Multi-stage signal correction for improved measurement precision.
- Suitable for clean, non-corrosive gases.
- Compact, rugged construction.
- Compatible with standard industrial flow monitoring and control systems.

ENGINEERING SPECIFICATION

TYPE	: DIFFERENTIAL TYPE
ACCURACY	: +/- 1% of FSR
RANGEABILITY	: 10:1
REPEATABILITY	: +/- 0.25%
PRESSURE RATING	: 2 BAR
TEMPERATURE RATING	: 70°C
MOC	: SS 304/SS 316
FLOW DIRECTION	: HORIZONTAL / VERTICAL
POWER SUPPLY	: 18 – 30 VDC
OUT PUT	: 2 WIRE LOOP POWERED
ENCLOSURE	: FLAMEPROOF / WEATHERPROOF
LINE SIZE	: ½" to 12"





MODEL CODING

Suffix Code	1	2	3	4	5	6	7	Parameters
Model Code	SC/R-1600							DP Based Gas Flowmeter
Line Size		XX						15 - 300 NB
Fluid			G					Gas
Process Connection				F				Flanged
				TC				TC End
				S				Screwed NPT/BSP (M/F)
Material of Wetted Parts					S4			Body & Float SS304
					S6			Body & Float SS316
					ST			Body & Float PTFE lining
					SL			Body & Float SS316L
					XX			Other on Request
Flange to Flange						F1		300 mm
						F2		400 mm
						F3		500 mm
Enclosure							FL	FLAMEPROOF
							WP	WEATHERPROOF



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