

Force Sensors



Measures the addition or backup of force, meaning the resistance of silicon-implanted piezoresistors will increase when flexed under applied force. Potential applications include infusion pumps, anesthesia monitors, blood pressure equipment, and more.



Series	1865	FS01/FS03
Signal conditioning	calibrated	amplified
Technology	silicon die (piezoresistive)	silicon die (piezoresistive)
Force range	0 psi to 5 psi, 0 psi to 10 psi, 0 psi to 15 psi, 0 psi to 25 psi, 0 psi to 30 psi	0 lb to 1.5 lb, 0 lb to 3.0 lb
Overforce	10 psi, 30 psi, 45 psi, 60 psi	7 lb
Linearity	0.10 % FS typ., BFSL; 0.25 % FS max., BFSL	1.0 % FS typ., BFSL; 3.0 % FS max., BFSL
Operating temperature range	-28 °C to 54 °C [-18 °F to 129 °F]	0 °C to 70 °C [32 °F to 158 °F]
Storage temperature range	-1 °C to 54 °C [30 °F to 129 °F]	5 °C to 50 °C [41 °F to 122 °F]
Measurements (H x W x D)	7,62 mm x 17,145 mm x 17,145 mm [0.30 in x 0.675 in x 0.675 in]	8,26 mm x 17,27 mm x 25,1 mm [0.325 in x 0.68 in x 0.988 in]
Features	pressure measurement for liquid media; 8-pin DIP electrical connection; laser trimmed	high-level output range; calibrated zero and span



Series	FSG	FSS	FSS-SMT
Signal conditioning	unamplified	unamplified	unamplified
Technology	silicon die (piezoresistive)	silicon die (piezoresistive)	silicon die (piezoresistive)
Force range	0 N to 5 N, 0 N to 10 N 0 N to 15 N, 0 N to 20 N	0 N to 5 N, 0 N to 10 N 0 N to 15 N, 0 N to 20 N	0 N to 5 N, 0 N to 10 N 0 N to 15 N, 0 N to 20 N
Overforce	60 N max. (range dependent)	60 N max. (range dependent)	60 N max. (range dependent)
Linearity	±0.5 % span typ., BFSL	±0.5 % span typ., BFSL	±0.5 % span typ., BFSL
Operating temperature range	-40 °C to 85 °C [-40 °F to 185 °F]	-40 °C to 85 °C [-40 °F to 185 °F]	-40 °C to 85 °C [-40 °F to 185 °F]
Storage temperature range	-40 °C to 100 °C [-40 °F to 212 °F]	-40 °C to 100 °C [-40 °F to 212 °F]	-40 °C to 100 °C [-40 °F to 212 °F]
Measurements (H x W x D)	9,04 mm x 12,70 mm x 7,98 mm [0.36 in x 0.50 in x 0.31 in]	3,18 mm x 14,22 mm x 5,59 mm [0.13 in x 0.56 in x 0.22 in]	3,18 mm x 13,70 mm x 5,59 mm [0.13 in x 0.54 in x 0.22 in]
Features	extremely low deflection; low repeatability and linearity error	low deflection; direct mechanical coupling of actuator ball; small size	low deflection; direct mechanical coupling of actuator ball; small size; low voltage

Airflow Sensors



Contains advanced microstructure technology to provide a sensitive and fast response to flow, amount/direction of air or other gases. Potential applications include HVAC, gas metering, chromatography, vent hoods, and medical equipment.



Series	Honeywell Zephyr™ HAF Series-High Accuracy ±50 SCCM to ±750 SCCM	Honeywell Zephyr™ HAF Series-High Accuracy 20 SLPM or 200 SLPM
Signal conditioning	amplified, compensated	amplified, compensated
Technology	silicon die with thermally isolated heater	silicon die with thermally isolated heater
Flow/press. range	±50 SCCM to ±750 SCCM	20 SLPM, 200 SLPM
Output	analog (Vdc), digital (I ² C)	digital (I ² C)
Power consumption	3.3 Vdc: 40 mW typ. (no load) (analog); 23 mW typ. (no load) (digital) 5.0 Vdc: 55 mW typ. (no load) (analog); 38 mW typ. (no load) (digital)	3 Vdc: 60 mW max. 10 Vdc: 200 mW max.
Port style	long port, short port	manifold mount, 22 mm OD tapered male fitting, G 3/8 female threaded fitting
Media compat.	dry non-corrosive gases	non-corrosive dry gases
Oper. temp. range	-20 °C to 70 °C [-4 °F to 158 °F]	-20 °C to 70 °C [-4 °F to 158 °F]
Measurements (H x W x D)	long port: 20 mm x 36 mm x 19,9 mm [0.79 in x 1.42 in x 0.78 in]; short port: 17,6 mm x 28,8 mm x 19,9 mm [0.69 in x 1.13 in x 0.78 in]	110 mm x 54,4 mm x 54 mm [4.3 in x 2.14 in x 2.1 in] (22 mm OD, tapered male fitting - largest)
Features	high accuracy; high sensitivity at very low flows; high stability; low pressure; linear output; customizable; full calibration and temperature compensation	built-in bypass provides high performance, easy integration and custom calibration



Series	AWM5000	AWM700
Signal conditioning	amplified	amplified
Technology	silicon die	silicon die
Flow/press. range	0 SLPM to 5.0 SLPM; 0 SLPM to 10.0 SLPM; 0 SLPM to 15.0 SLPM; 0 SLPM to 20.0 SLPM	200 SLPM
Output	analog	analog
Power consumption	100 mW max.	60 mW max.
Port style	1/4 in-18 NPT	22 mm tapered
Media compat.	dry gas only	dry gas only
Oper. temp. range	-20 °C to 70 °C [-4 °F to 158 °F]	-25 °C to 85 °C [-13 °F to 185 °F]
Measurements (H x W x D)	35,6 mm x 162,8 mm x 32,3 mm [1.40 in x 6.41 in x 1.27 in]	33,8 mm x 22,9 x 37,0 mm [1.33 in x 0.90 in 1.40 in]
Features	sensitivity to low flows; enhanced response time; low power consumption; analog output; laser trimmed	sensitivity to low flows; enhanced response time; low power consumption; analog output; highly stable