

PRESSURE SENSOR ARRAY MSP-32A



MSP-32 is intended for simultaneous pressure measurement in 32 different points. It consists of 32 precision semiconductor pressure sensors manufactured by Iso-Boron process, a built-in multiplexer and an instrumentation amplifier. Pressure sensors are built in a thermostatic chamber. The digitally controlled multiplexer enables up to 10,000 measurements per second in arbitrary order. MSP-32 is delivered fully tested, together with control software support. Sensor output signal is processed according to the polynomial $A_0 + A_1U + A_2U^2$. Auto-zeroing is executed after start.

FEATURES

- Very high accuracy
- High speed data collecting
- Built-in thermostatic chamber
- Built-in address decoder and amplifier

APPLICATIONS

- Aircraft industry
- Wind tunnels

ABSOLUTE MAXIMUMS

Operating pressures range: 0.35/1/2.5/5 bara, differential

Operating temperature range: (-20 to +50)^oC, storage (-50 to +80)^oC

Pressure overload: 3x nominal; 5x for the range 1/2 bar

Supply voltage: ±2V

SPECIFICATIONS

- Ambient temperature 22^oC, unless otherwise stated

Parameter	typical	min	max	Units	Notes
Full scale output	4	5	6	V	Full scale voltage and offset voltage dispersion among channels
Temperature sensitivity, output	0.01		0.05	% / ^o C	Incl. polynomial data processing, 90 days guaranteed
Offset voltage	-1.5		+1.5	V	Full scale voltage and offset voltage dispersion among channels
Temperature sensitivity offset	0.01		0.025	% FS/ ^o C	Including polynomial data processing, 90 days guaranteed
Hysteresis, nonlinearity	0.01		0.02	% FS	
Total error	0.02			% FS	24 hours after zeroing

Working fluid	Non-corrosive gas, humidity up to 95%
Power supply	+15V, 250mA max, -15V, 50mA

DIMENSIONS

