JIN ZON ENTERPRISE CO., LTD.

TEL:886-2-2711-1093~5 FAX:886-2-2731-0902 ,2776-4624

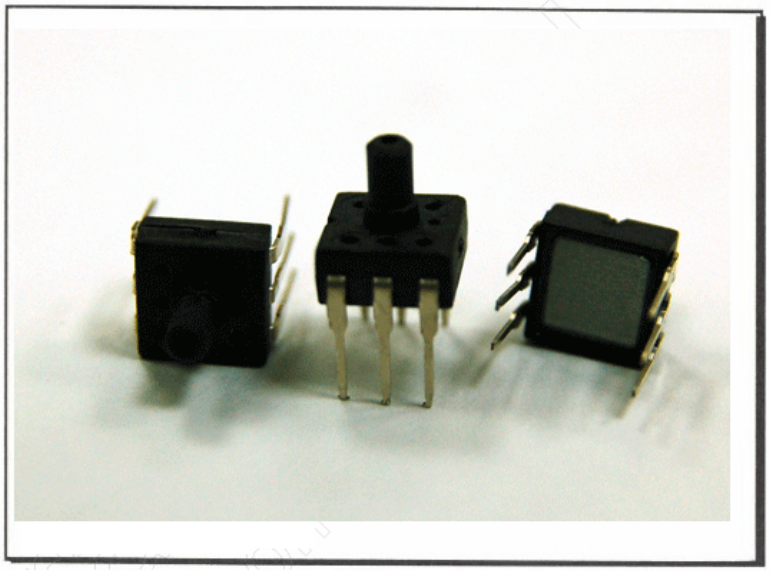
Address：4F-3. No.171. Sec.2. Chang An E. Rd. Taipei. Taiwan. R.O.C.

Solid State Pressure Sensor

JSPD SERIES

FEATURES

- Low Cost
- Easy to Use DIP Package
- Gage or Absolute Pressure
- Constant Voltage or Constant Current Drive



APPLICATIONS

- Blood Pressure Meter
- Barometric Sensing
- Portable Gages
- Process Control
- Vacuum Measurement

DESCRIPTION

The JSPD Series of OEM pressure sensors are silicon pressure sensor in miniature plastic Dual-in-line package to accommodate six pins for through-board printed circuit mounting. These sensors give a voltage output which is proportional to applied pressure. The gage version will give an increasing positive going output when increasing pressure is applied to the molded pressure port. In optional absolute configuration, the pressure is applied to the top of the sensor. A reference vacuum chamber is formed in the chip during manufacturing.

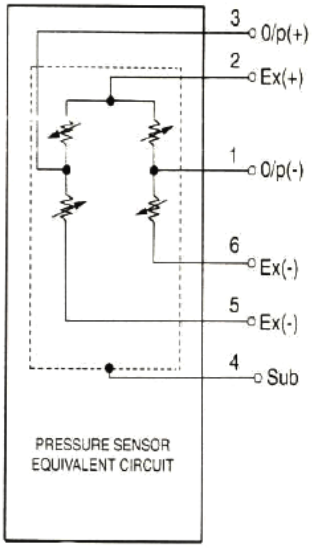
These devices are available in full-scale ranges from 5 to 100 PSI.

They also may be packaged with application specific sensor die. For other lead configuration and alternative pressure ranges, please contact the factory.

Characteristics

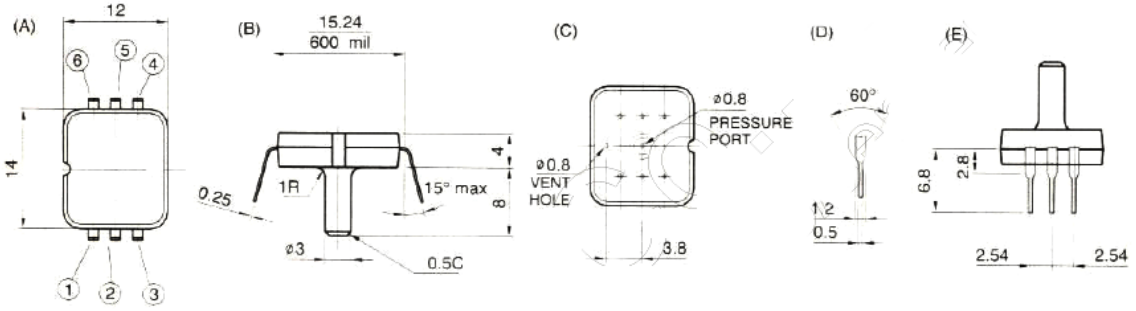
Supply Voltage: 5DC Ambient Temperature: 25°C (Unless Otherwise Specified)

Parameter	Min	Typ	Max	Units
Excitation Voltage	0	5.0	10.0	Volts
Excitation Current	0	1.5	3.0	mA
Span (FS Range)				
5 PSI	70	100	130	mV
15 PSI	110	145	180	mV
30 PSI	125	165	200	mV
60 PSI	125	180	215	mV
100 PSI	125	200	255	mV
Offset	-50	0	50	mV
TC Span	-27	-22	-17	%FS/100°C
TC Offset	-7		+7	%FS/100°C
TC Resistance	23	28	33	%FS/100°C
Linearity	-0.3	±0.1	+0.3	%FS
Bridge Impedance	2.7	3.3	4.0	KΩ
Pressure Overload			20	Psi
Operating Temp	-20		85	°C
Storage Temp	-30		125	°C



Notes:
1. Best Fit Straight Line.
2. Wetted material are glass, Ryton, silicon, fluorosilicon and gold(absolute).

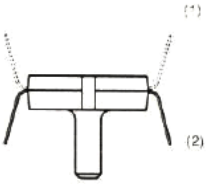
Dimension



Ordering Information

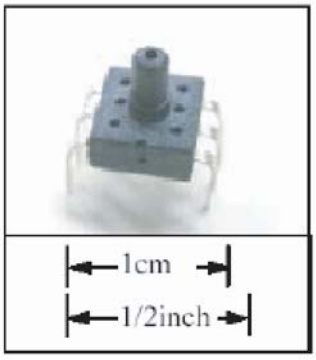
JSPD – 015 – G – 1

- Lead Direction (1=Same as Tube, 2=Opposite as Tube)
- Pressure Type (G: Gage)
- Range (5,15, 30, 60 and 100 psi)
- Model



Lead Direction

JPBPS-pressure sensor



FEATURES

- High reliability
- High Performance
- Small size
- High Impedance for Low Power Applications

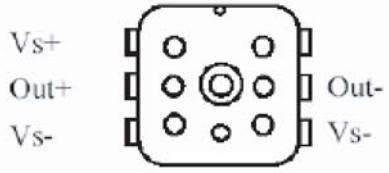
APPLICATIONS

- Medical Equipment
- Blood pressure measurement
- Pneumatic controls

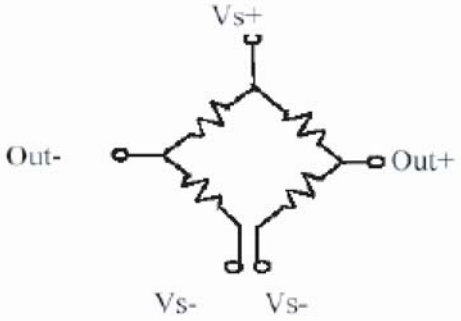
GENERAL DESCRIPTION

This sensor will provide a very cost effective solution of require small size plus performance for pressure application. This sensor give an accurate and stable output over 0℃ to 50℃ temperature range. It can be measure over 0 psi to 5.8 psi pressure range.

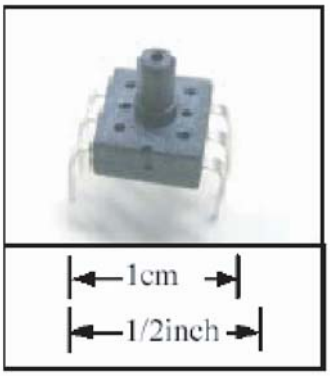
ELECTRICAL CONNETION



EQUIVALENT CIRCUIT



JPBPS-pressure sensor



FEATURES

- High reliability
- High Performance
- Small size
- High Impedance for Low Power Applications

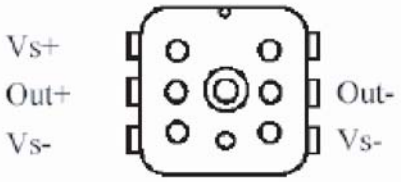
APPLICATIONS

- Medical Equipment
- Blood pressure measurement
- Pneumatic controls

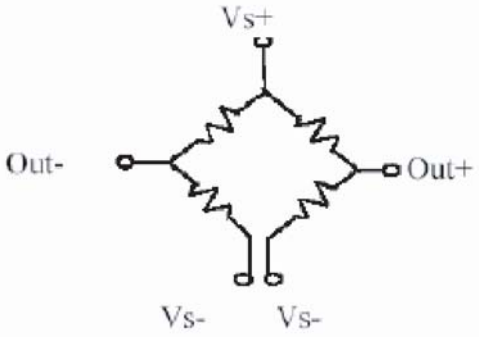
GENERAL DESCRIPTION

This sensor will provide a very cost effective solution of require small size plus performance for pressure application. This sensor give an accurate and stable output over 0℃ to 50℃ temperature range. It can be measure over 0 psi to 5.8 psi pressure range.

ELECTRICAL CONNETION

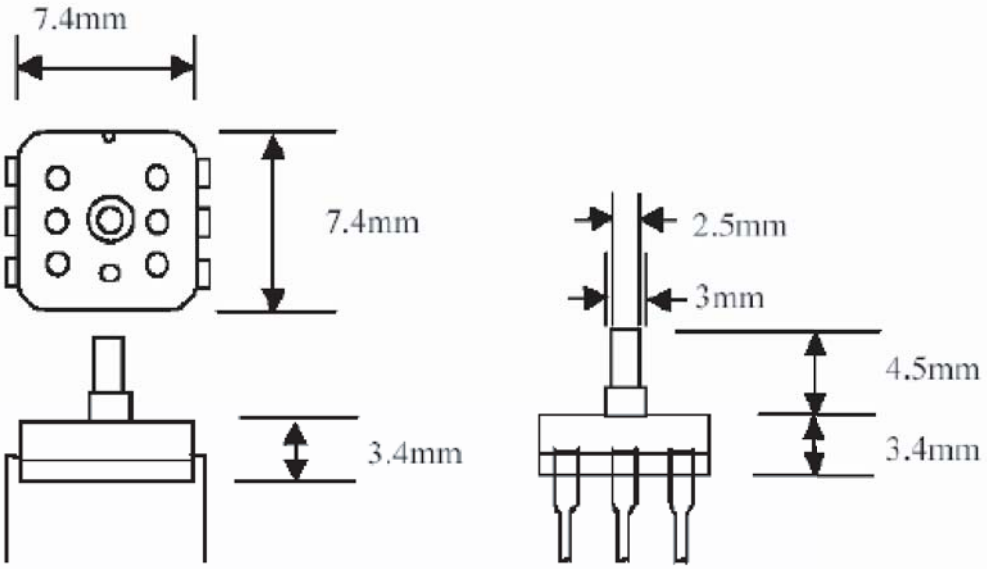


EQUIVALENT CIRCUIT



JPBPS-pressure sensor

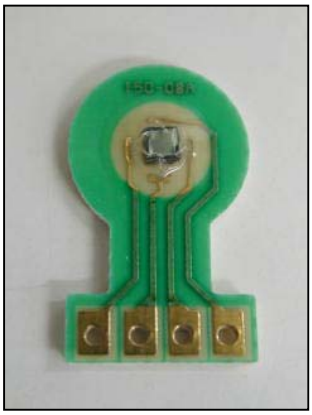
DIMENSION



JIN ZON ENTERPRISE CO., LTD.
4F-3, No.171, Sec.2, Chang An. E. Rd., Taipei, Taiwan, R.O.C.
TEL.886-2-27111093 FAX.886-2-27310902
E-mail: jinzon@ms2.hinet.net
http://www.jinzon.com.tw

JinZon Co., Ltd. 駿融企業有限公司
http://www.jinzon.com.tw/ Email: jinzon@ms2.hinet.net Tel：886-2-27111093~5 Fax：886-2-27310902

JPCOB Pressure Sensor



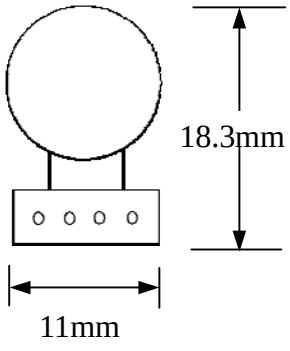
FEATURES

Low Cost Sensor Element
Solid State Reliability
Absolute Pressure
Constant Voltage or Constant Current Drive

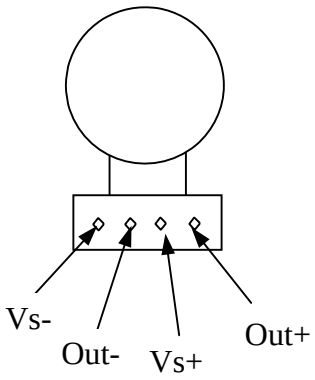
APPLICATIONS

Altimeters
Weather Station
Pneumatic Control
Cable Fault Detection

DIMENSION



ELECTRICAL CONNETION



JinZon Co., Ltd. 駿融企業有限公司
http://www.jinzon.com.tw/ Email: jinzon@ms2.hinet.net Tel：886-2-27111093~5 Fax：886-2-27310902

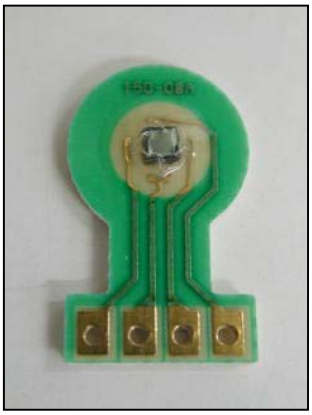
Characteristics:

Parameter	Value	Units	Notes
General			
Pressure Range	15 / 30 / 100	Psi	
Maximum Overpressure	3X		rated pressure
Electrical @25°C (77°F) unless otherwise specified			
Excitation	3	VDC	
Input Impedance	4~6	kΩ	
Output Impedance	4~6	kΩ	
Environmental			
Operating Temperature Range	-40~+125	°C	-40 °F ~+257°F
Storage Temperature Range	-40~+125	°C	-40 °F ~+257 °F
Mechanical			
Media Compatibility	Clean, dry air & noncorrosive gases		
PERFORMANCE(1)			
Zero Offset	±30/±30/±10	mV/V	
Span	145±30/60±20 /60±20	mV	
Bridge Resistance	4~6	kΩ	
Linearity	±0.3/±0.3/±0.2	% Span	
Hysteresis	±0.1	% Span	
Temperature Coefficient of Zero Offset	-0.08~+0.08	% Span/°C	
Temperature Coefficient of Span	<-0.15/ <-0.15/-0.2	%Span/ °C	

Notes: 1. All values are Minimum/Maximum and are measured at 3 VDC and 25°C unless otherwise specified.
2. Best fit straight line.
3. Between -20 °C and 100 °C. Temperature coefficients are typical values.

JinZon Co., Ltd. 駿融企業有限公司
http://www.jinzon.com.tw/ Email: jinzon@ms2.hinet.net Tel：886-2-27111093~5 Fax：886-2-27310902

JPCOB Pressure Sensor



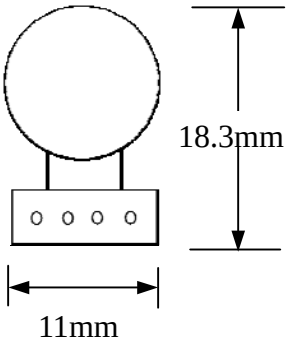
FEATURES

Low Cost Sensor Element
Solid State Reliability
Absolute Pressure
Constant Voltage or Constant Current Drive

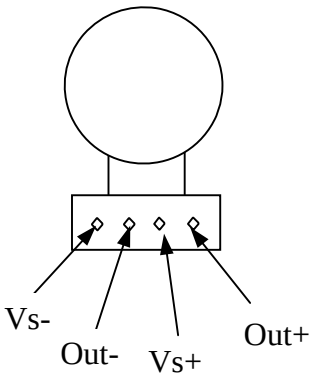
APPLICATIONS

Altimeters
Weather Station
Pneumatic Control
Cable Fault Detection

DIMENSION



ELECTRICAL CONNETION



JinZon Co., Ltd. 駿融企業有限公司
http://www.jinzon.com.tw/ Email: jinzon@ms2.hinet.net Tel：886-2-27111093~5 Fax：886-2-27310902

Characteristics:

This specification is based on a nominal 5V supply, Since the pressure sensor is a ratiometric device, voltage measurements need to be appropriately scaled for operating conditions as supplies other than 5V.

Parameter	Value	Units	Notes
General			
Pressure Range	150 / 300	Psi	
Maximum Overpressure	750	Psi	rated pressure
Electrical			
Excitation	5	VDC	
Input Impedance	4.5~5.5	kΩ	
Output Impedance	4.5~5.5	kΩ	
Environmental			
Operating Temperature Range	-40~+125	°C	-40 °F ~+257°F
Storage Temperature Range	-40~+125	°C	-40 °F ~+257 °F
Mechanical			
Media Compatibility	Clean, dry air & noncorrosive gases		
PERFORMANCE			
Zero Offset	±15	mV/V	
Span	145±45/290+45	mV	See note 1
Bridge Resistance	4.5~5.5	kΩ	
Sensitivity	0.193±0.6	mV/V/psi	See note 1
Non-Linearity	-2.5~2.5	%FS	See note 1 See note 2
	-1~1	%FS	See note 3
	-0.2~0.2	%FS	See note 1 See note 4
Temperature Coefficient of Zero	-215~85	uV/V/°C	
Offset Temperature Coefficient of Span	-0.22±0.06	%FS/°C	

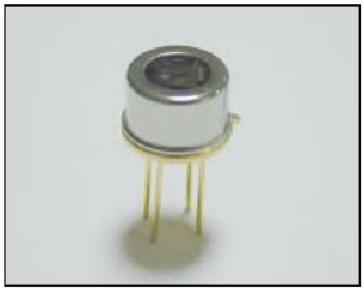
All parameter are tested at 5V supply. Parameters are additionally tested at 5V as indicated.

JinZon Co., Ltd. 駿融企業有限公司
http://www.jinzon.com.tw/ Email: jinzon@ms2.hinet.net Tel：886-2-27111093~5 Fax：886-2-27310902

Notes:

1. Tested at 5V supply
2. Difference between pressure at span and 0 psi. this corresponds to the maximum discrepancy possible due to device non-linearity.
3. Difference between pressure linearly approximated and the actual pressure over the span of the sensor, measured as a percentage of the full scale output.
4. Difference between pressure linearly approximated and the actual pressure over the application pressure range, measured as a percentage of the full scale output.

JP STS Pressure Sensor



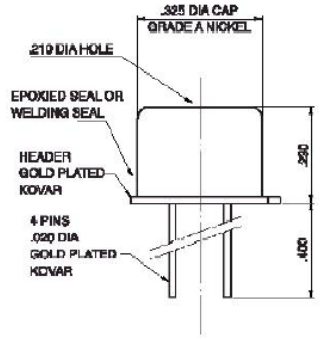
FEATURES

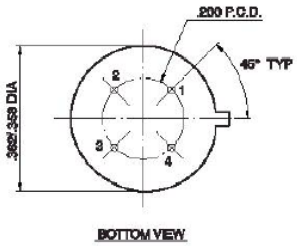
Low Cost Sensor Element
Solid State Reliability
Absolute Pressure
Constant Voltage or Constant Current Drive

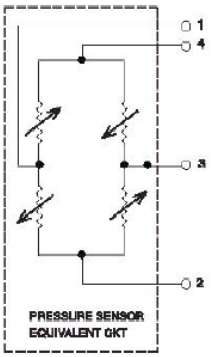
APPLICATIONS

Altimeters
Weather Station
Pneumatic Control
Cable Fault Detection

DIMENSION







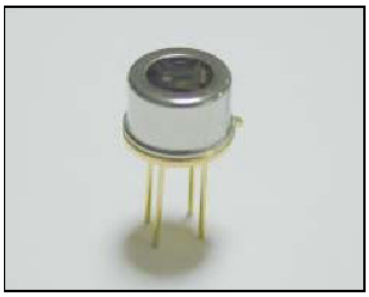
PIN#	PIN OUT
1	Vs-
2	Out+
3	Vs+
4	Out -

Parameter	Value	Units	Notes
General			
Pressure Range	15 / 30 / 100	Psi	
Maximum Overpressure	3X		rated pressure
Electrical @25°C (77°F) unless otherwise specified			
Excitation	3	VDC	
Input Impedance	4~6	kΩ	
Output Impedance	4~6	kΩ	
Environmental			
Operating Temperature Range	-40~+125	°C	-40 °F ~+257°F
Storage Temperature Range	-40~+125	°C	-40 °F ~+257 °F
Mechanical			
Media Compatibility	Clean, dry air & noncorrosive gases		
PERFORMANCE(1)			
Zero Offset	±30/±30/±10	mV/V	
Span	145±30/60±20 /60±20	mV	
Bridge Resistance	4~6	kΩ	
Linearity	±0.3/±0.3/±0.2	% Span	
Hysteresis	±0.1	% Span	
Temperature Coefficient of Zero Offset	-0.08~+0.08	% Span/°C	
Temperature Coefficient of Span	<-0.15/ <-0.15/-0.2	%Span/ °C	

Notes: 1. All values are Minimum/Maximum and are measured at 3 VDC and 25°C unless otherwise specified.
2. Best fit straight line.
3. Between -20 °C and 100 °C. Temperature coefficients are typical values.

JIN ZON ENTERPRISE CO., LTD.
4F-3, No.171, Sec.2, Chang An. E. Rd., Taipei, Taiwan, R.O.C.
TEL.886-2-27111093 FAX.886-2-27310902
E-mail: jinzon@ms2.hinet.net
http://www.jinzon.com.tw

JP STS Pressure Sensor



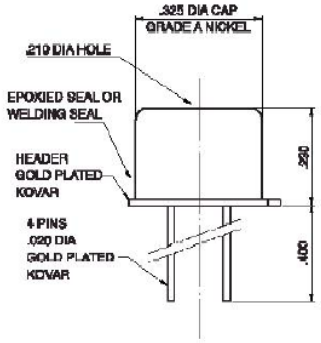
FEATURES

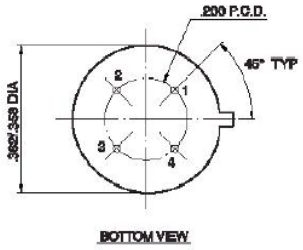
Low Cost Sensor Element
High Performance
Absolute Pressure

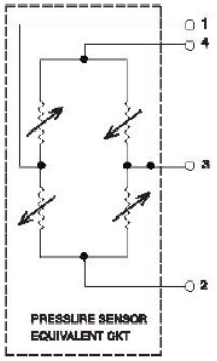
APPLICATIONS

Altimeters
Weather Station
Pneumatic Control
Cable Fault Detection

DIMENSION







PIN#	PIN OUT
1	Vs-
2	Out+
3	Vs+
4	Out -

Characteristics:

This specification is based on a nominal 5V supply, Since the pressure sensor is a ratiometric device, voltage measurements need to be appropriately scaled for operating conditions as supplies other than 5V.

Parameter	Value	Units	Notes
General			
Pressure Range	150 / 300	Psi	
Maximum Overpressure	750	Psi	rated pressure
Electrical			
Excitation	5	VDC	
Input Impedance	4.5~5.5	kΩ	
Output Impedance	4.5~5.5	kΩ	
Environmental			
Operating Temperature Range	-40~+125	°C	-40 °F ~+257°F
Storage Temperature Range	-40~+125	°C	-40 °F ~+257 °F
Mechanical			
Media Compatibility	Clean, dry air & noncorrosive gases		
PERFORMANCE			
Zero Offset	±15	mV/V	
Span	145±45/290±45	mV	See note 1
Bridge Resistance	4.5~5.5	kΩ	
Sensitivity	0.193±0.6	mV/V/psi	See note 1
Non-Linearity	-2.5~2.5	%FS	See note 1 See note 2
	-1~1	%FS	See note 3
	-0.2~0.2	%FS	See note 1 See note 4
Temperature Coefficient of Zero Offset	-215~85	uV/V/°C	
Temperature Coefficient of Span	-0.22±0.06	%FS/°C	

All parameter are tested at 5V supply. Parameters are additionally tested at 5V as indicated.

Notes:

1. Tested at 5V supply
2. Difference between pressure at span and 0 psi. this corresponds to the maximum discrepancy possible due to device non-linearity.
3. Difference between pressure linearly approximated and the actual pressure over the span of the sensor, measured as a percentage of the full scale output.
4. Difference between pressure linearly approximated and the actual pressure over the application pressure range, measured as a percentage of the full scale output.

JIN ZON ENTERPRISE CO., LTD.
4F-3, No.171, Sec.2, Chang An. E. Rd., Taipei, Taiwan, R.O.C.
TEL.886-2-27111093 FAX.886-2-27310902
E-mail: jinzon@ms2.hinet.net
http://www.jinzon.com.tw