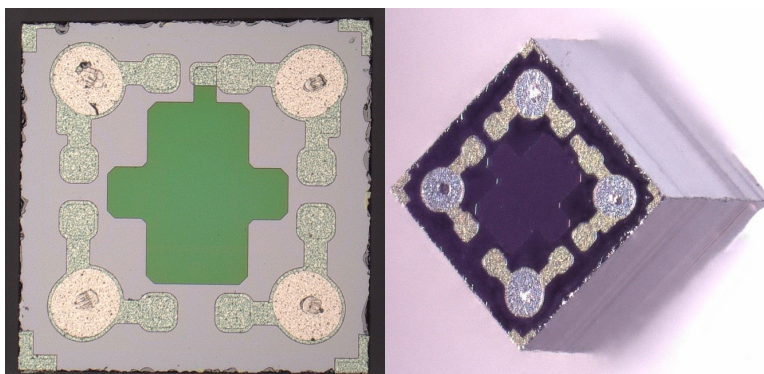


IPD53 SERIES - ABSOLUTE PRESSURE SENSOR

Buried Cavity Absolute Pressure Sensor Technology



Disclaimer:

This is a preliminary datasheet. The listed parameters are meant to be the development guidance and might change with the final revision of this datasheet.

Specification

Parameter	Range	Min.	Typ.	Max.	Unit
Electric and environmental					
Bridge resistance	All	4.2	4.7	5.2	kOhm
Supply voltage	All		5	10	V
Operating Temperature	All	-40		+150	°C
Storage Temperature	All	-50		+150	
Temperature coefficient^{a)}					
Offset	All	-0.07	0	+0.07	%FSS/K
Output span	All	-0.22	-0.19	-0.16	
Bridge resistance	All	+0.22	+0.26	+0.30	%/K
Performance^{b)}					
Offset ^{c)}	All	-25	5	+35	mV@5V
Non-linearity ^{d)}	All		±0.3		%FSS
Pressure repeatability	All		±0.05		
Temperature hysteresis ^{e)}	All		±0.15		
Long-term stability	All		±0.15		%FSS/year
Full scale output					
IPD53-AP-00A006B	6bar	70	100	140	mV@5V
Customized	Cust.		Cust.		

a) 25°...85°C

b) Parameters are significantly impacted by the packaging.

c) Measured at vacuum

d) End point straight line.

e) 25°...125°...25°C

Key Features

- Secondary passivation for increased robustness
- High reliability
- Low pressure hysteresis
- Fast response
- High impedance bridge
- Pressure proportional output signal
- Very cost efficient through smallest size

Applications

- Automotive applications
- Industrial controls
- Medical instrumentations
- HVAC applications
- Encapsulated pressure sensors
- Board level pressure sensors

Media

- Dry air
- Oil filled transmitters
- Non-corrosive gases
- Vacuum applications

Technology

- Piezo resistive Wheatstone bridge utilized with glass backplate
- Buried cavity

Shipping

- Wafers on tape and frame
- Waffle pack on request for samples

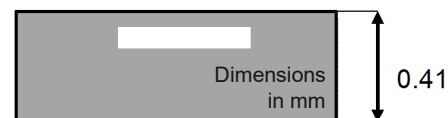
IPD53 SERIES - ABSOLUTE PRESSURE SENSOR

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Options

IPD53-AP-00AxxxB



Parameter	Range	Min. from front side	Min. from rear side	Unit
Overload and burst pressure				
IPD53-AP-00A006B	6bar	>30	—	bar
Customized	Cust.	Cust.	Cust.	

Die Layout and Size

Absolute Pressure (AP)

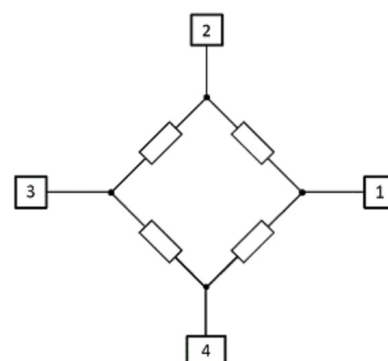


0.48 x 0.48 mm

Electrical Connection

Bondpad Signal

Output	
1	-Vout
2	+Vsupply
3	+Vout
4	-Vsupply



Ordering Code

Series	Size	Backplate Option / Type	Range	Unit
IPD53	AP 0.48x0.48mm	00A 0.0mm / Absolute	006 B	bar
Order Code Example				
IPD53	AP 0.48x0.48mm	00A 0.0mm / Absolute	006 B	bar
IPD53-AP-00A006B				