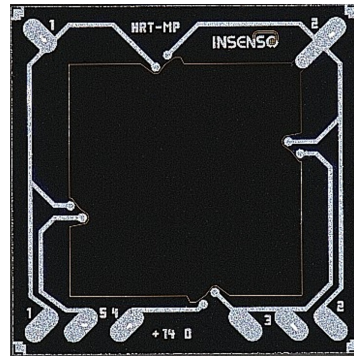


IPD40 SERIES - High Robust Technology

Absolute and gage silicon pressure sense dies



Key Features

- High long-term stability
- Low pressure and temperature hysteresis
- Fast response
- High impedance bridge
- Pressure proportional output signal

Applications

- Industrial controls
- Medical instrumentations
- 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 back plate

Shipping

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

Specification

Parameter	Range	Min.	Typ.	Max.	Unit
Electric and environmental					
Bridge resistance	All	5.0	5.5	6.0	kOhm
Supply voltage	All		5	12	V
Operating Temperature	All	-40		+125	°C
Storage Temperature	All	-50		+150	
Temperature coefficient^{a)}					
Offset	All	-0.04 ^{b)}	±0.02	+0.10 ^{b)}	%FSS/K
Output span	All		-0.20		
Bridge resistance	All	+0.31	+0.35	+0.39	%/K
Performance					
Offset	All	-25	0	+25	mV@5V
Non linearity ^{c)}	All		<0.3		%FSS
Pressure hysteresis	All		<0.03		
Temperature hysteresis ^{d)}	All		<0.075		
Long-term stability	All		<0.3		%FSS/year
Full scale output					
IPD40-MP-xxG100M	100mbar		>50		mV@5V
IPD40-MP-xxG250M	250mbar		100		
IPD40-MP-xxx600M	600mbar	60	100	140	
IPD40-HP-xxx001B	1bar	60	100	140	
IPD40-HP-xxx004B	4bar	60	100	140	
IPD40-HP-xxx010B	10bar	60	100	140	
IPD40-HP-xxx016B	16bar	60	100	140	
IPD40-HP-xxx025B	25bar	60	100	140	
IPD40-HP-xxx040B	40bar	60	100	140	
IPD40-HP-xxx100B	100bar	60	100	140	
IPD40-HP-xxx250B	250bar	60	100	140	
IPD40-HP-08A400B	400bar	60	100	140	
Customized	Cust.		Cust.		

a) 25°...85°C

b) 0.00...+0.25 %FSS/K for IPD40-MP-xxG100M and IPD40-MP-xxG250M

c) End point straight line

d) 25°...125°...25°C

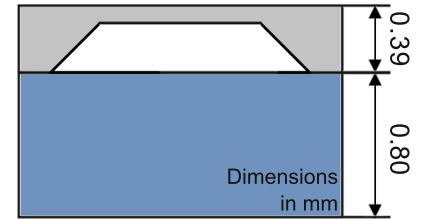
IPD40 SERIES - High Robust Technology

Absolute and gage silicon pressure sense dies



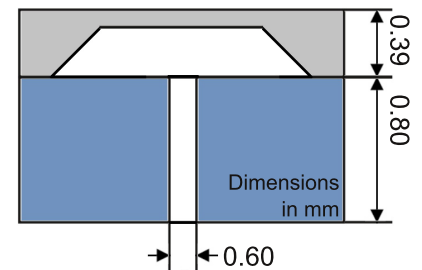
Options

IPD40-xP-08Axxxx



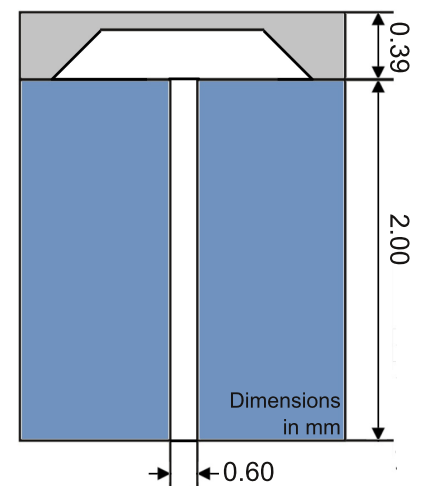
for Pressure Range 600mbar to 400bar

IPD40-xP-08Gxxxx



for Pressure Range 100mbar to 250bar

IPD40-xP-20Gxxxx

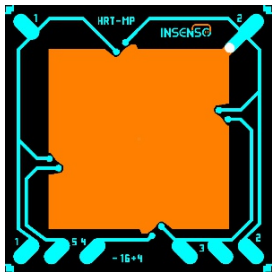


for Pressure Range 100mbar to 250bar

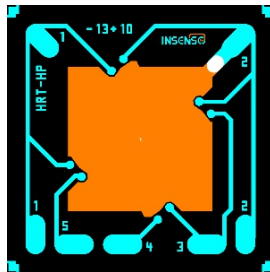
Parameter	Range	Min. from front side	Min. from rear side	Unit
Overload and burst pressure				
IPD40-MP-xxG100M	100mbar	>1	>1	bar
IPD40-MP-xxG250M	250mbar	>2.5	>2.5	
IPD40-MP-xxx600M	600mbar	>6	>6	
IPD40-HP-xxx001B	1bar	>10	>10	
IPD40-HP-xxx004B	4bar	>40	>20	
IPD40-HP-xxx010B	10bar	>50	>30	
IPD40-HP-xxx016B	16bar	>80	>48	
IPD40-HP-xxx025B	25bar	>125	>75	
IPD40-HP-xxx040B	40bar	>150	>75	
IPD40-HP-xxx100B	100bar	>200	>75	
IPD40-HP-xxx250B	250bar	>500	>75	
IPD40-HP-08A400B	400bar	>800	-	
Customized	Cust.	Cust.	Cust.	

Die Layout and Size

Medium Pressure (MP) High Pressure (HP)



2.65 x 2.65 mm

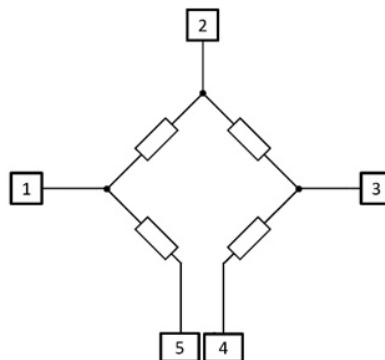


2.05 x 2.05 mm

Electrical Connection

Bondpad Signal

Output	
1	-Vout
2	+Vsupply/substrate
3	+Vout
4	-Vsupply
5	-Vsupply



IPD40 SERIES - High Robust Technology

Absolute and gage silicon pressure sense dies



Ordering Code

Series	Size	Part Number	Back Plate Option / Type	Pressure	Range	Unit
IPD40	MP	2.65x2.65mm	08A	0.8mm / Absolute	100	M mbar
	HP	2.05x2.05mm	08G	0.8mm / Gage	250	B bar
			20G	2.0mm / Gage	600	
					001	
					004	
					010	
					016	
					025	
					040	
					100	
					250	
					400	

Order Code Example

IPD40 - HP 2.05x2.05mm - 08A 0.8mm / Absolute 001 B bar

IPD40-HP-08A001B