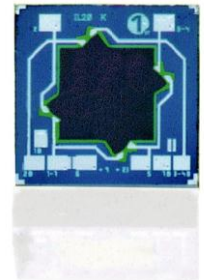


K-Layout
Die size: 1,75 x 1,75 mm



Overview

The Standard Line STARe is a piezoresistive 1,8 mm silicon pressure sensor dies line with pressure proportional output signal. The dies have side layouts as well as round layouts with electrical shield. Our optimised designs and technologies allow high accuracy measurements of absolute, gauge or differential pressure for required applications. Central features of our STARe Technology (Sensor Technology for Advanced Resistors) are the high stabilities, low temperature hysteresis and extremely high overpressure. Customised solutions are also possible.

Applications

- Automotive applications
- Industrial controls
- Home appliances
- Medical instrumentations

Features

- Secondary passivation for advanced protection against external influences (e.g. humidity)
- Very compact size
- Cost efficient
- High sensitivity, reliability and stability
- For current and voltage supply
- Additional on-chip diode
- Pressure ranges
K-Layout:
0..100 kPa to 0..3 MPa

Order No.



- 1 **Product Code**
Standard Line STARe (with secondary passivation)
- 2 **Outside Dimension**
K: 1,75 x 1,75 mm (100kPa...3MPa)
- 3 **Pressure Range [Pa]**
100k: 100kPa = 1bar
3M0: 3MPa = 30bar
- 4 **Type (X)**
A: Absolute
G: Gauge (Glass)
- 5 **Thickness Back Plate**
YY: Back Plate
Thickness in 100µm

Certificate

ISO/TS 16949



Common Characteristics

Type	Pressure range	Parameter	min.	typ.	max.	Unit
SL21K-100k-A/GXX	100 kPa	Span voltage	40	70	130	mV@5V
SL21K-250k-A/GXX	250 kPa	Span voltage	60	100	140	mV@5V
SL21K-500k-A/GXX	500 kPa	Span voltage	60	100	140	mV@5V
SL21K-01M0-A/GXX	1,0 MPa	Span voltage	60	100	140	mV@5V
SL21K-03M0-A/GXX	3,0 MPa	Span voltage	60	100	140	mV@5V

Gauge types can also be used für differtial measurements.

Contact

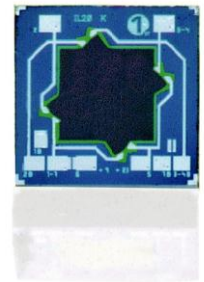
info@baystar-inc.com

www.baystar-inc.com

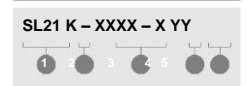
Electrical Characteristics (measured at 5 V supply and 25 °C, unless otherwise specified)

Parameter	min.	typ.	max.	Unit
Bridge resistance	3.200	4.000	4.800	Ω
Offset voltage	-50	0	+50	mV
Temperature coefficient of bridge resistance ¹	+0,27	+0,31	+0,34	% /K
Temperature coefficient of offset ¹	-0,04	0,02	+0,08	%F.S.S./K
Temperature coefficient of span ¹	-0,21	-0,19	-0,17	%F.S.S./K
Temperature coefficient of U _{diode}	-2,45	-2,30	-2,15	mV/K
Temperature hysteresis ^{1A}		<0,10		±%F.S.S.
Pressure hysteresis		<0,10		±%F.S.S.
Linearity error ^{2,3}		<0,30	0,50	±%F.S.S.

1) Measured from 25°C to 85°C; 1A) Measured from 25°C – 125°C;
 2) End point straight line setting; 3) Pressure applied onto the front side of the die



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YY: Back Plate
Thickness in 100µm

Maximum Ratings

Type	Over Pressure (100kPa)		Burst Pressure (100kPa)	
	FS min.	RS min.	FS min.	RS min.
SL21K-100k-A/GXX	20	10	>20	>10
SL21K-250k-A/GXX	40	20	>40	>20
SL21K-500k-A/GXX	50	25	>50	>25
SL21K-01M0-A/GXX	60	30	>60	>30
SL21K-03M0-A/GXX	90	60	>90	>60

FS: Front side; RS: Rear side

Certificate

ISO/TS 16949



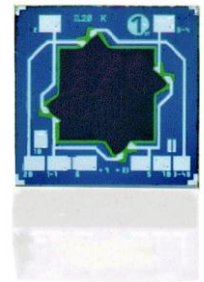
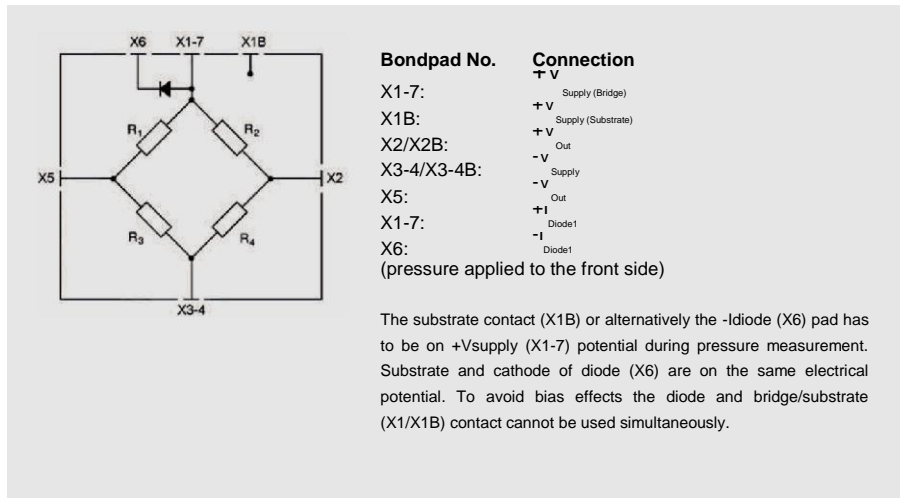
Parameter	Limit Values			Unit
	min.	typ.	max.	RS min.
Operating temperature range (Higher temperature on demand)	-40		+150	°C
Storage temperature range	-50		+150	°C
Supply voltage		5	12	V

Contact

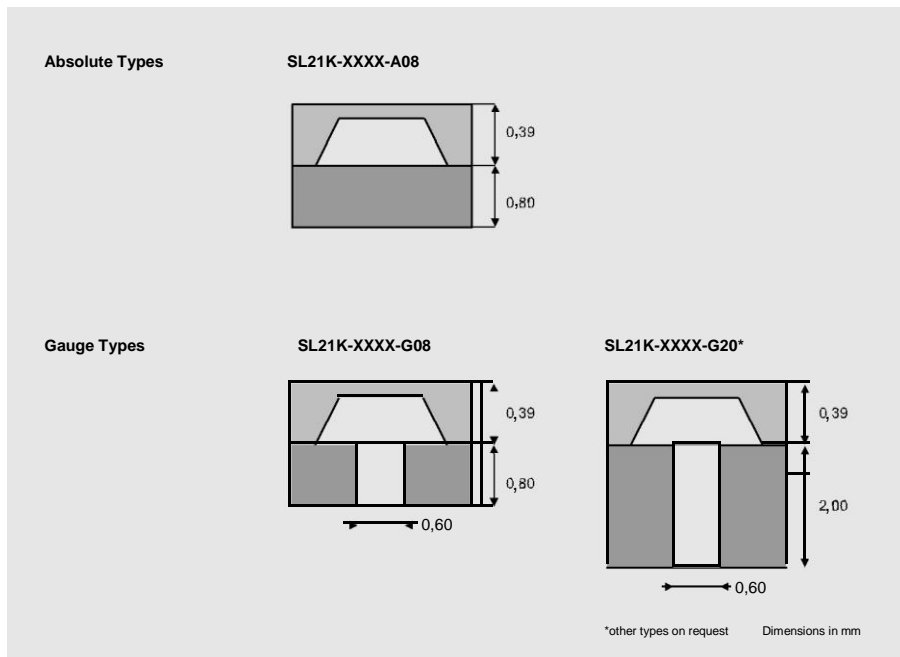
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Bondpad Configuration



Technical Options



Order No.



- **Product Code**
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Thickness in 100µm

Certificate

ISO/TS 16949



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Disclaimer

All informations are only for product description without any legal binding. For further improvement of technical details, they are subject to change.