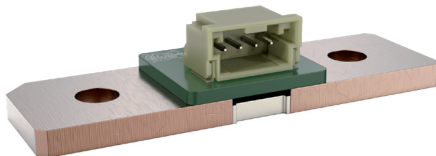




### BSL // SIZE 5216 (METRIC)

### PRELIMINARY VERSION



#### Features

- Analog sensor with connector and thermistor (NTC)
- High pulse power rating
- High temperature measurement stability
- Data Matrix Code (DMC) containing resistance value
- AEC-Q200 qualified



#### Applications

- Current sensor for BMS (Battery Management Systems)
- Current sensor for ESS (Energy Storage Systems)

#### Technical data

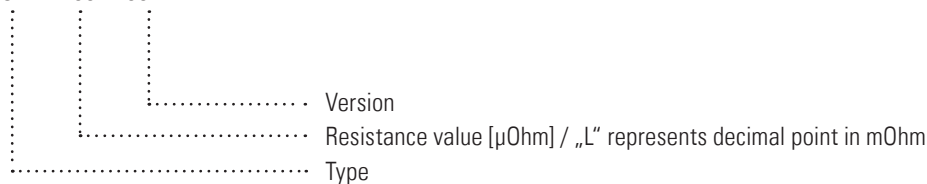
		BSL-L100-002	
Resistance values	$\mu\text{Ohm}$	100	
Resistance tolerance (manufactured)	%	5.0	
Resistance tolerance (measured)	%	DMC $\pm 0.1$	
Temperature coefficient (20-60 °C)	ppm/K	<50	
Applicable temperature range	°C	-40 to $T_K$ 125 and $T_{max} = 145$	
Power rating (nominal load, $P_{nom}$ )	W	10	
Load for continuous / pulse operation*		time	current
		continuous	$\pm 310$ A
Internal heat resistance ( $R_{thi}$ )	K/W	2.0	
Thermal EMF (30-60 °C)	$\mu\text{V/K}$	<0.6	
Inductance	nH	<3	
Maximum resistance drift at nominal load after 2,000h of continuous operation at maximum temperature $T_{max}$		<0.75 % ( $T_{max} = 145$ °C)	

Note: For calculation of the maximum derating terminal temperature ( $T_K$ ) the following formula can be used:  $T_K = T_{max} - (R_{thi} \times P_{nom})$ .

\*Sample loads. Please feel free to contact us in case of differing currents or pulse profiles.

#### Ordering code example

BSL - L100 - 002



#### Packaging information

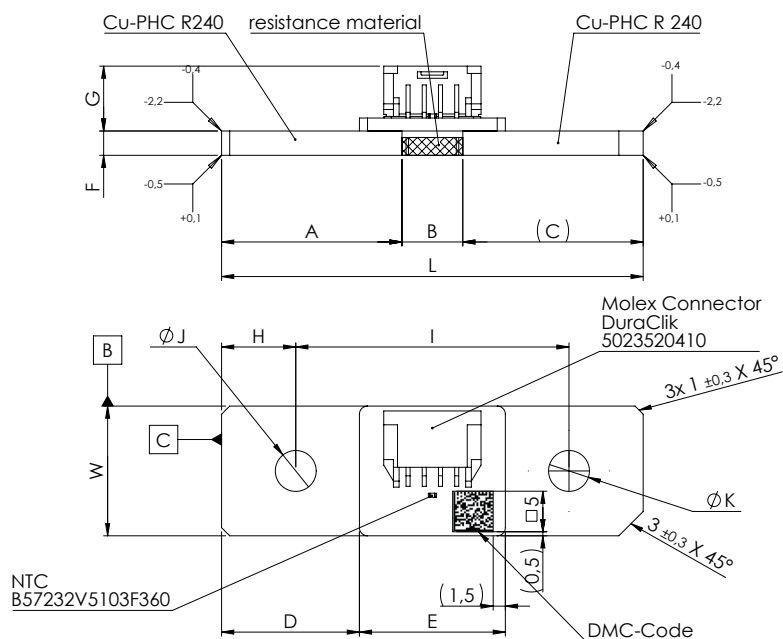
Delivery in ESD plastic trays

Packaging in trays, delivery size and packaging concept under development



## BSL // SIZE 5216 (METRIC)

## Mechanical specification [mm]

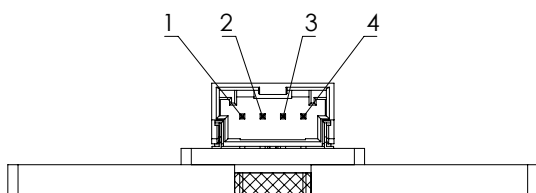


Type / Ordering code	A	B	C	D	E	F	G	H
BSL-L100-002	22.25 ± 0.3	7.5 ± 0.3	(22.25)	17 ± 0.3	18 ± 0.2	3 ± 0.1	8 ± 0.5	9.15 ± 0.3
Type / Ordering code	I	J / K	W	L	shunt plating	underlayer	alloy	
BSL-L100-002	33.7 ± 0.2	ø 5.05 ± 0.1	16 ± 0.2	52 ± 0.2	-	-	MANGANIN®	

## PCB Specification

Type / Ordering code	Connector	Part no.	Orientation	Positions	NTC quantity
BSL-L100-002	Molex	5023520410	horizontal	4	1

## PIN specification BSL-L100-002

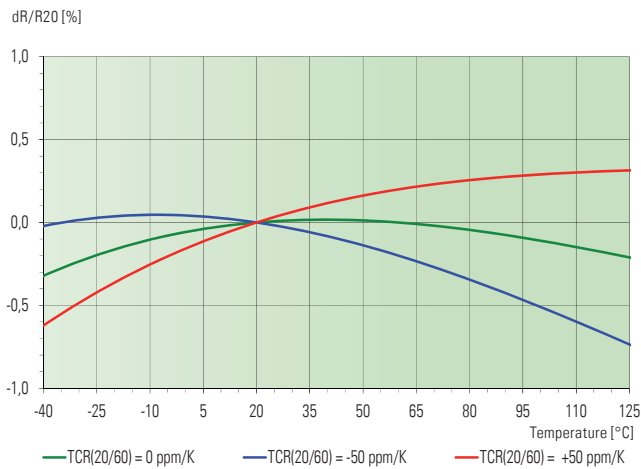


Connector Pin	Signal
1	Shunt +
2	NTC +
3	NTC -
4	Shunt -

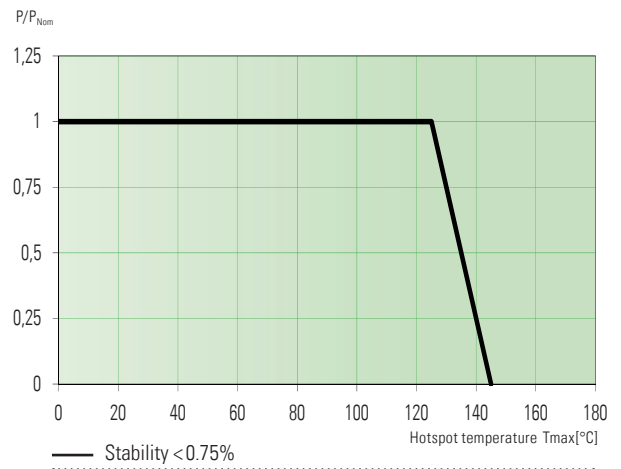


## BSL // SIZE 5216 (METRIC)

## BSL-L100-002 Resistance Change with Temperature



## Power derating curve, hotspot temperature

**Disclaimer** // All products, product specifications and data are subject to change without notice.

The product specifications do not expand or otherwise modify Isabellenhütte's terms and conditions of sale, including but not limited to, the warranty expressed therein. Isabellenhütte makes no warranty, representation or guarantee other than as set forth in its terms and conditions of sale.

Information provided in datasheets and/or specifications may vary from actual results in different applications. Any statements made by Isabellenhütte regarding the suitability of products for certain types of applications are based on its knowledge of typical requirements that are often placed on its products. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in the application intended. No license, express or implied, or otherwise, to any intellectual property rights is granted by this document.

Any and all liability arising out of the application or use of any product shall be as set forth in Isabellenhütte's terms and conditions of sale.

