

## Ventilation Safety Device (VSD)

- The storage of Green Energy is becoming increasingly important for today's and future generations, especially for e-mobility applications. The challenge is to make electrical energy available where ever and whenever it is needed. Efficient and reliable storage systems are needed for this purpose.

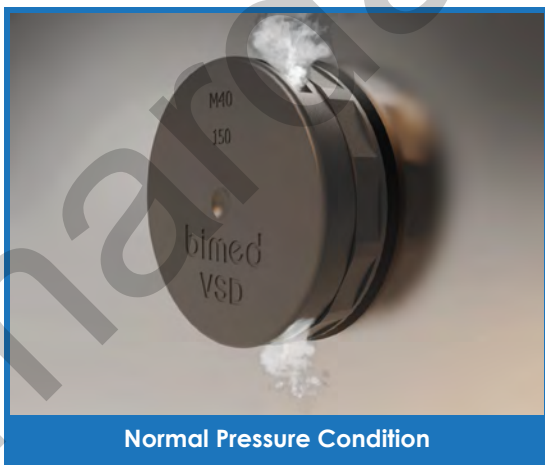
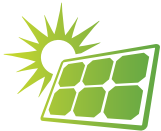
- Today's batteries consist mostly of stacks of Li-Ion cells. Since lithium is a highly reactive element, charging and discharging batteries can result in overheating of a cell which might cause an explosion. To avoid injuries as the result of such an explosion there are two possible options;

- 1- Use an explosion-proof casing
- 2- Use a valve which releases the pressure in the casing.

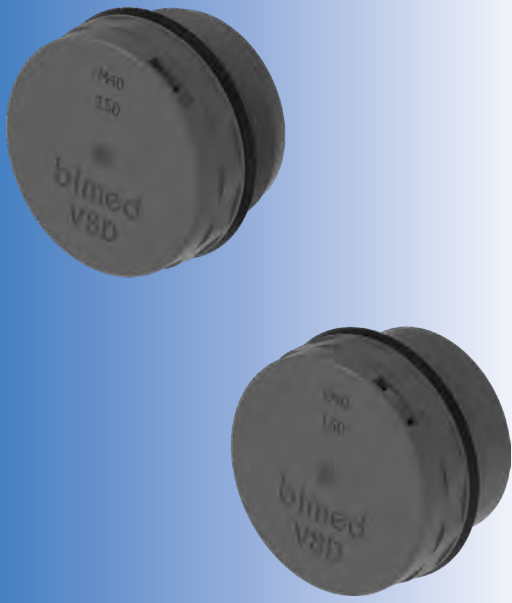
The first option increases weight and costs of the battery; that's why it's not preferred in the battery industry. VSD is aimed at the second option.

- This Ventilation and Safety Device developed by Bimed optimizes the lifetime of Li-Ion batteries and provides safety in case of an explosion. It meets protection classes IP 66, IP 67, and IP 69K.

- VSD can be used in electric vehicles with Li-Ion batteries, electric trains and stationary batteries for energy storage.



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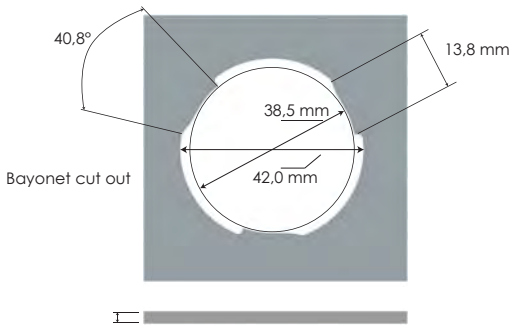
## VSD with ventilation and burst function

- Independent ventilation and burst function in one device,
- Balances pressure between inside and outside of housing,
- Complete opening in case of combustion,
- Avoids harmful explosion of Li-Ion battery,
- Discharges harmful gases in case of combustion in a battery housing.

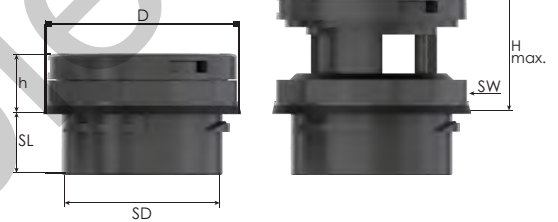
### Technical Details

<b>Material</b>	<b>Body</b>	PA 66 Glass Fiber Reinforced
	<b>Cap</b>	PA 66 Glass Fiber Reinforced
	<b>Seals</b>	VMQ
	<b>Vent Membrane</b>	Oleophobic PTFE
<b>Ingress Protection Rating</b>		IP 66
		IP 67
		IP 69K
<b>Flammability</b>		V0 according to UL 94
<b>Operating Temperature</b>		-40 °C to +80 °C
<b>UL Environmental Rating</b>		Type 4X, Type 12, Type 13 acc. to UL 50E
<b>Remarks</b>		•Vibration test performed acc. to road vehicles standard <b>ISO 16750</b> .

Industrial Applications

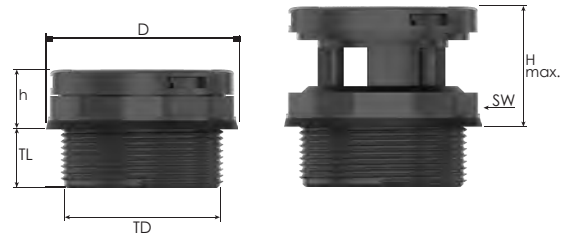


Wall thickness for bayonet version : 2,0 mm ± 0,2 mm  
For more technical details please contact us.



## BAYONET Fitting

Size	Pressure Balance Airflow for ΔP=70 mbar	Water Intrusion Pressure	Opening Pressure	Snap Length		Spanner Width	Outer Ø	Height	max. Height	Part Number
				SL mm	SD mm					
Ø 40	400	> 150	150 ± 50	15,0	38,2	45	47,0	13,6	28,0	VSD BJ40PL-CT150
Ø 40	400	> 150	350 ± 100	15,0	38,2	45	47,0	13,6	28,0	VSD BJ40PL-CT350



## Thread Type METRIC acc. to EN 60423

Outer Thread Size (Male)	Pressure Balance Airflow for ΔP=70 mbar	Water Intrusion Pressure	Opening Pressure	Outer Thread Length		Spanner Width	Outer Ø	Height	max. Height	Part Number
				TL mm	TD mm					
M40x1,5	400	> 150	150 ± 50	15,0	40,0	45	47,0	13,6	28,0	VSD M40PL-CT150
M40x1,5	400	> 150	350 ± 100	15,0	40,0	45	47,0	13,6	28,0	VSD M40PL-CT350