Type SB4 Load Cell

SB4悬梁臂式称重传感器

IP 68　CE　FM APPROVED　Ex

Important Features

- Capacities: 5 kN to 100 kN.
- High accuracy.
- Total stainless steel construction.
- Complete hermetic sealing.
- Protection IP 68.
- Low profile.
- High input resistance: 1100Ω.
- W&M certified for 4000 intervals(PTB: D09-97.02 Rev. 1).
- Multi range and multi interval accuracy.
- Unique "blind" loading hole.
- Calibration in mV/V/Ω.
- Factory Mutual approved.

主要特点

- 量程: 5kN到100kN
- 高精度
- 不锈钢结构
- 全金属焊接密封
- 防护等级 IP68
- 较低外形
- 输入电阻高：1100Ω，替换方便
- W&M认证，4000分度。(PTB: D09-97.02 Rev. 1).
- 多量程和多间隔精度
- 盲孔安装
- 数字标定，标定精度0.05%
- FM、OIML、NTEP、CE、FM、Ex认证

Option

- Explosion protection zone 0, 1, 2 and 20, 21, 22 ATEX.

选项

- 防爆保护区域0，1，2和20，21，22ATEX

选型

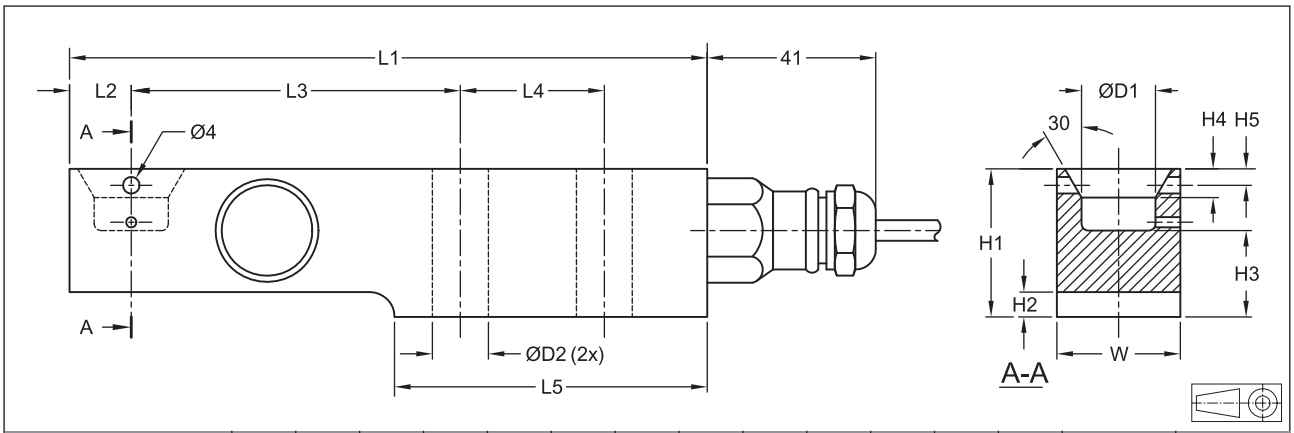
SB4	-量程	-防爆（**EX**）

SB4 Specifications 技术参数

Maximum capacity　量程（Emax)	kN	5/10/20/50/100				5/10/20/50	
Metric equivalent (1 lb=0.45359 kg)　公制	kg	510/1020/2039/5099/10197				510/1020/2039/5099	
Rated Output 输出灵敏度　（Cn）	mV/V	2 ± 0.1%					
Calibration in mV/V/Ω　数字标定精度	%Cn	⩽ ± 0.05 (⩽ ± 0.005)					
Accuracy class according to OIML R 60　精度等级		(GP)	C1	C3	C3MI 7.5	C4	C4 MI 7.5
Maximum number of verification intervals　最大检定分度数 (Nmax)		n.a.	1000	3000	3000	4000	4000
Minimum load cell verification interval　最小检定分度　(Vmin)		n.a.	Emax/5100	Emax/11000	Emax/11000	Emax/11000	Emax /11000
Combined error　综合误差	%Cn	⩽ ± 0.040	⩽ ± 0.030	⩽ ± 0.020	⩽ ± 0.020	⩽ ± 0.018	⩽ ± 0.018
Creep error (30 minutes)/DR　蠕变（30分钟）	%Cn	⩽ ± 0.060	⩽ ± 0.049	⩽ ± 0.016	⩽ ± 0.0066	⩽ ± 0.012	⩽ ± 0.0066

Temperature effect on minimum dead load output　零点温度系数	%Cn/℃	⩽ ± 0.0040	⩽ ± 0.0028	⩽ ± 0.0012	⩽ ± 0.0007	⩽ ± 0.0012	⩽ ± 0.0012
Temperature effect on sensitivity　灵敏度温度系数	%/℃	⩽ ± 0.0020	⩽ ± 0.0016	⩽ ± 0.0011	⩽ ± 0.0011	⩽ ± 0.0008	⩽ ± 0.0008
Excitation voltage 激励电压	V	5…15					
Zero balance 零点平衡	%Cn	⩽ ± 5					
Input resistance 输入电阻	Ω	1100 ± 50					
Output resistance 输出电阻	Ω	1000 ± 2					
Insulation resistance 绝缘电阻 （100 V DC）	MΩ	⩾ 5000					
Compensated temperature range 补偿温度范围	℃	-10…+40					
Operating temperature range　工作温度范围	℃	-40…+80					
Safe load limit　安全载荷限制 (Elim)	%Emax	200					
Ultimate load　极限载荷	%Emax	300					
Safe side load　安全侧载	%Emax	100					
Load cell material　材料		stainless steel 17-4 PH (1.4548)不锈钢					
Sealing　密封		complete hermetic sealing; 全金属焊接密封					
Protection according DIN 40.050　防护等级		IP 68					

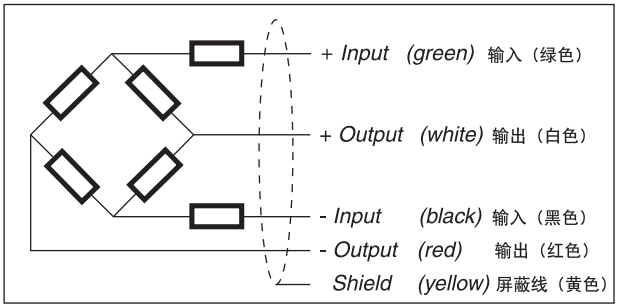
Dimensions 尺寸



型号	L1	L2	L3	L4	L5	H1	H2	H3	H4	H5	W	D1	D2	装配螺栓	力矩
SB4-5 kN/10 kN/20 kN	155	15	80	35	76	36	6	21	7	4	30	18	13	M12 8.8	90 Nm
SB4-50 kN	190	21	105	40	93	49	8	28.5	6	8	43	25	21	M20 8.8	400 Nm
SB4-100 kN	245	30	135	50	120	73	12.5	42	10	n.a.	60	30	27	M24 8.8	700 Nm

All dimensions in mm. 所有尺寸单位为： **mm.**
*** Torque values assume oiled threads.** 力矩值适用在油螺纹的情况下。

接线图



Wiring

- The load cell is provided with a shielded, 4 conductor cable (AWG 24). Cable jacket polyurethane.
- Cable length: 3 m for SB4-5 kN/10 kN/20 kN, 4.5 m for SB4-50 kN/100 kN.
- Cable diameter: 5 mm.
- The shield is floating (On request the shield can be connected to the load cell body).

连线

- 称重传感器专用4芯屏蔽电缆线（AWG 24）。
- 电缆长度：对于SB4-5 kN/10 kN/20 kN 为3m.对于SB4-50 kN/100 kN为4.5m.
- 电缆直径为：5 mm
- 屏蔽线悬浮（如果要求，屏蔽可与称重传感器本体相连）