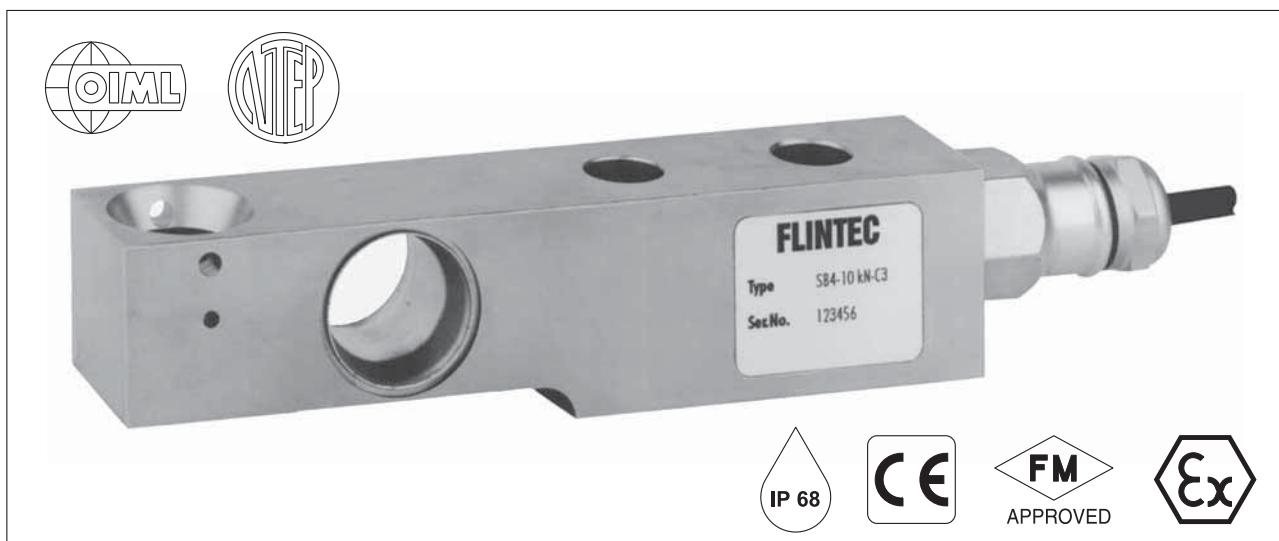


## Type SB4 Load Cell

SB4悬梁臂式称重传感器



### 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.

### Option

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

### 选型

| SB4 | -量程 | -防爆 (EX) |
|-----|-----|----------|
|-----|-----|----------|

### 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

### 选项

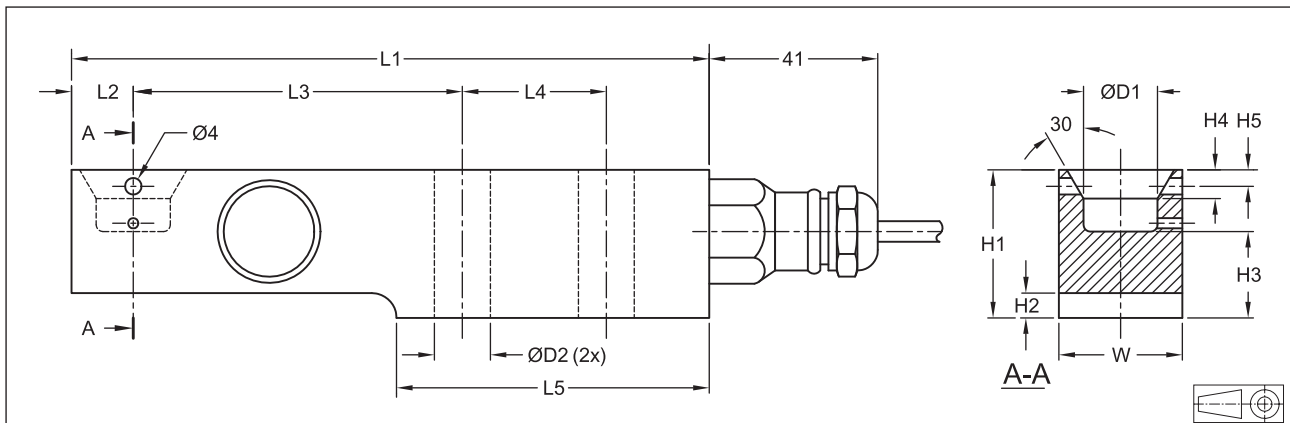
- 防爆保护区域0, 1, 2和20, 21, 22ATEX

### SB4 Specifications 技术参数

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

|                                                       |                   |                                      |            |            |            |            |            |
|-------------------------------------------------------|-------------------|--------------------------------------|------------|------------|------------|------------|------------|
| Temperature effect on minimum dead load output 零点温度系数 | %Cn/°C            | ≤ ± 0.0040                           | ≤ ± 0.0028 | ≤ ± 0.0012 | ≤ ± 0.0007 | ≤ ± 0.0012 | ≤ ± 0.0012 |
| Temperature effect on sensitivity 灵敏度温度系数             | %/°C              | ≤ ± 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                  | °C                | -10...+40                            |            |            |            |            |            |
| Operating temperature range 工作温度范围                    | °C                | -40...+80                            |            |            |            |            |            |
| Safe load limit 安全载荷限制 (Elim)                         | %E <sub>max</sub> | 200                                  |            |            |            |            |            |
| Ultimate load 极限载荷                                    | %E <sub>max</sub> | 300                                  |            |            |            |            |            |
| Safe side load 安全侧载                                   | %E <sub>max</sub> | 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

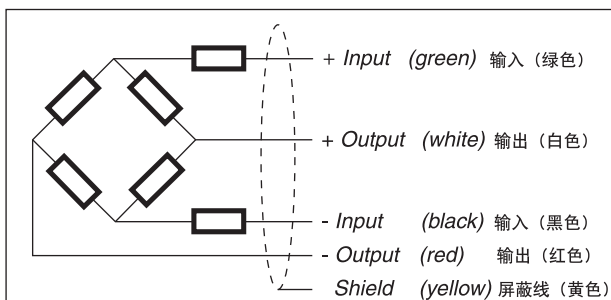


| 型号                   | L1  | L2 | L3  | L4 | L5  | H1 | H2   | H3   | H4 | H5   | W  | D1 | D2 | 装配螺栓    | 力矩     |
|----------------------|-----|----|-----|----|-----|----|------|------|----|------|----|----|----|---------|--------|
| SB4-5 kN/10 kN/20 kN | 155 | 15 | 80  | 35 | 76  | 36 | 6    | 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）