

# SB Series LVDT

( Displacement Transducer)



- Short body to stroke ratio.
- Industrial format
- AC Input, AC output
- PTFE Bushes
- Weatherproof
- Plug, cable or flexible conduit outlets
- 150/180°C operation (Cable outlets)
- Spring loaded or rod end bearings

The SB series LVDT displacement transducer features a large displacement range in a comparatively short and rugged stainless steel body. The robust construction makes the SB series ideal for applications where a short bodied, accurate, durable position feedback transducer is required. Electrical connections are via 2 m length of integral cable or 4 pin connector.

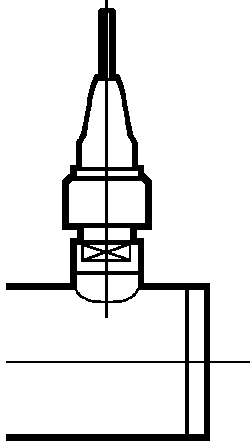
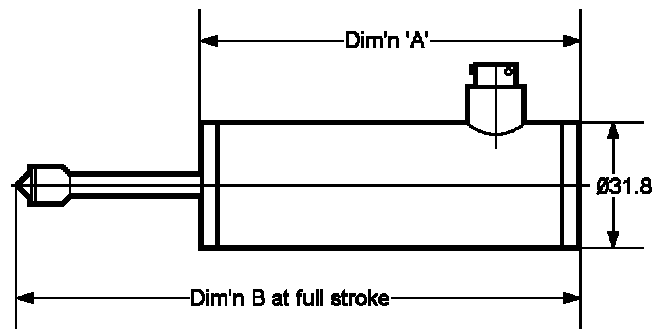
The rugged stainless steel body consists of a magnetically shielded linear variable differential transformer. These are designed for operation from low voltage AC supplies at frequencies between 50Hz and 5kHz.

The transducer housing consists of a non-magnetic stainless steel body of 31.75mm diameter and in lengths according to the stroke length. An inner housing of magnetically permeable material shields the transformer from the effects of external fields. The 6.35mm diameter core extension shaft is guided by means of a PTFE bearing bush. On spring loaded versions the force required for full compression of the extension shaft varies from approximately 280g for the 25mm range to approximately 790g for the 150 mm range.

Various configurations are available to accommodate most industrial applications. The SB series can be supplied with a spring loaded core or captive core with rod end bearings.

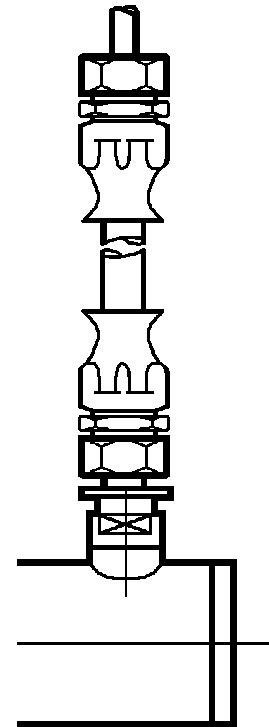
### Version 1 (SBXXX/1)

Spring loaded, captive core and extension rod. Ball end on extension rod. Side exit with 4 pin connector. Weatherproof



### Version 2 (SBXXX/2)

Spring loaded, captive core and extension rod. Ball end on extension rod. Side exit via 4 core PTFE cable 2m in length. Other lengths optional. Weather proof (IP55).



### Version 3 (SBXXX/3)

Spring loaded, captive core and extension rod. Side exit via 4 core PTFE cable in stainless steel braided flexible conduit, ending in 1/4 BSP reusable coupling, 2m in length, other lengths optional. Weatherproof (IP155).

| Transducer Type<br>(versions 1,2 and 3) | SB25 | SB50 | SB75 | SB100 |
|---|------|------|------|-------|
| Total Displacement range (mm)           | 25   | 50   | 75   | 100   |
| Dimension 'A'                           | 84   | 126  | 168  | 212   |
| Dimension 'B'                           | 117  | 185  | 253  | 322   |

Overtravel at each end at least 5% of total range

**DS1188-1**



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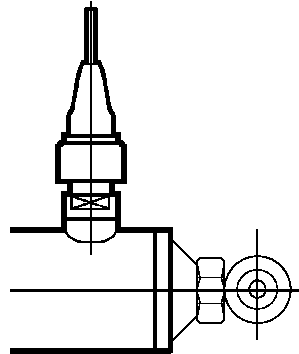
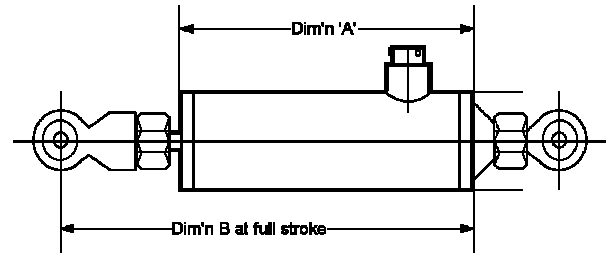
# SB Series LVDT

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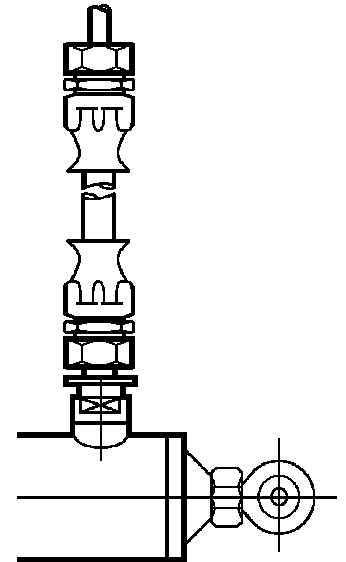
## Version 4 (SBXXX/4)

Spring loaded, captive core and extension rod. Ball end on extension rod side exit with 6 pin connector. Weatherproof (IP55).



## Version 5 (SBXXX/5)

Captive core and extension rod. Rod end bearings on body and extension rod. Side exit Via 4 core PTFE cable, 2m I length, other lengths optional. Weatherproof (IP55).



## Version 6 (SBXXX/6)

Spring loaded, captive core and extension rod. Ball end on extension rod. Side exit via 6 core PTFE cable in stainless steel flexible conduit, ending in 1/4 BSP re-usable coupling, 2m in length. Other lengths optional. Weatherproof or submersible versions available.

| Transducer Type  | SB25 | SB50 | SB75 | SB100 | SB150 |
|--|------|------|------|-------|-------|
| <b>Total Displacement range (mm)</b>                     | 25   | 50   | 75   | 100   | 150   |
| <b>Dimension 'A'</b>                                     | 105  | 148  | 190  | 234   | 277   |
| <b>Dimension 'B'</b>                                     | 174  | 242  | 308  | 377   | 470   |
| <b>Overtravel at each end at least 5% of total range</b> |      |      |      |       |       |

