

# DR SERIES LVDT DISPLACEMENT TRANSDUCER



- DC INPUT - DC OUTPUT
- ROBUST CONSTRUCTION
- WEATHERPROOF AND SUBMERSIBLE VERSIONS
- SPRING LOADED OR GUIDED CORES
- STAINLESS STEEL BODY
- CONNECTOR, CABLE OR CONDUIT OUTLET

The DR series of LVDTs are designed for heavy industrial environments where a quick and easy to install displacement transducer is required.

The DR LVDT consists of a stainless steel body enclosing the transducer windings and signal conditioning.

The voltage input and output is via a connector, cable or conduit depending on the application and environment.

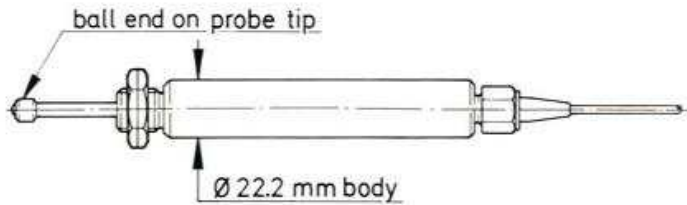
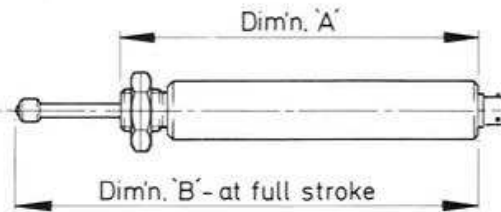
If moisture is a problem then a connector or cable version only gives limited protection whilst the conduit version enables the transducer to be fully submersed.

The SR series transducer can be supplied in a spring loaded format with either end exit or side exit or supplied with rod end (universal) bearings.

If temperatures are likely to exceed 90°C or zero and gain controls are required then a Sensonics AC input AC output transducer should be used.

**VERSION 1 (DRXXX/1)**

Spring loaded, captive core and extension rod. Ball end on extension rod. End exit with 4 pin connector. Weatherproof. (IP55).

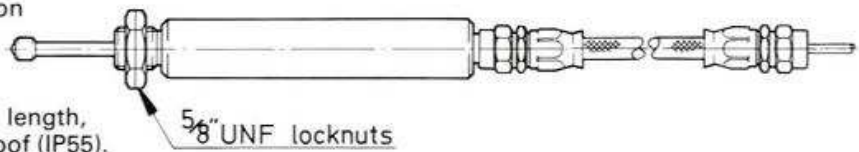


**VERSION 2 (DRXXX/2)**

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

**VERSION 3 (DRXXX/3)**

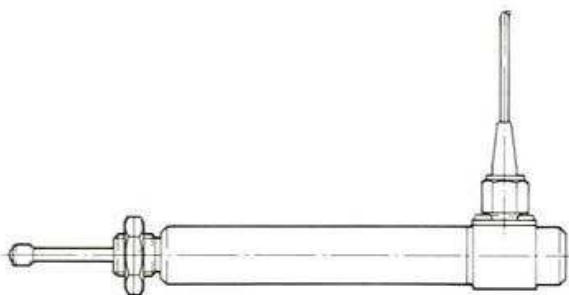
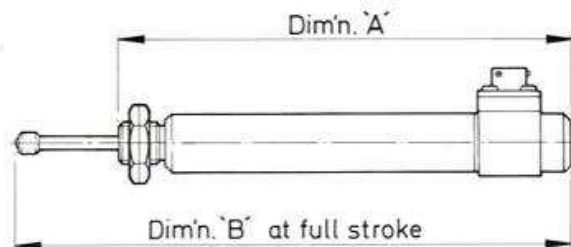
Spring loaded. Captive core and extension rod. Ball end on extension rod. End exit via 4 core PTFE cable in stainless steel braided flexible conduit, ending in 1/4BSP re-usable coupling, 2m in length, other lengths optional. Weatherproof (IP55).



| TRANSDUCER TYPE-(VERSIONS 1,2 & 3)                | DR25 | DR50 | DR100 | DR150 |
|---|------|------|-------|-------|
| TOTAL DISPLACEMENT RANGE (mm)                     | 25   | 50   | 100   | 150   |
| DIMENSION 'A' (mm)                                | 183  | 255  | 341   | 412   |
| DIMENSION 'B' (mm)                                | 251  | 356  | 511   | 659   |
| OVERTRAVEL AT EACH END AT LEAST 5% OF TOTAL RANGE |      |      |       |       |

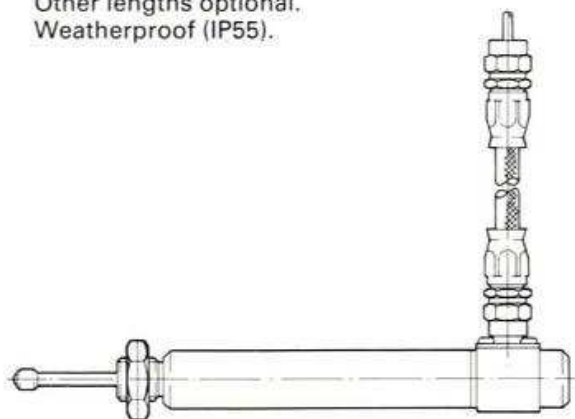
**VERSION 4 (DRXXX/4)**

Spring loaded, captive core and extension rod. Ball end on extension rod. Side exit with 4 pin connector. Weatherproof (IP55)



**VERSION 5 (DRXXX/5)**

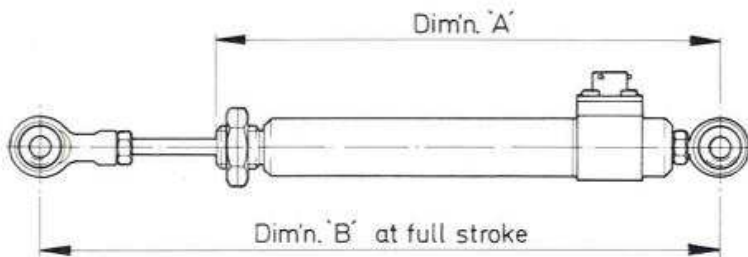
Spring loaded, captive core and extension rod. Ball end on extension rod. Side exit via 4 core PTFE cable 2m in length. Other lengths optional. Weatherproof (IP55).



**VERSION 6 (DRXXX/6)**

Spring loaded, captive core and extension rod. Ball end on extension rod. Side exit via 4 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- (VERSIONS 4,5 & 6)                | DR 25 | DR 50 | DR 100 | DR 150 |
|--|-------|-------|--------|--------|
| TOTAL DISPLACEMENT RANGE (mm)                      | 25    | 50    | 100    | 150    |
| DIMENSION 'A' (mm)                                 | 215   | 294   | 372    | 444    |
| DIMENSION 'B' (mm)                                 | 283   | 388   | 542    | 690    |
| OVERTRAVEL AT EACH END AT LEAST 5 % OF TOTAL RANGE |       |       |        |        |

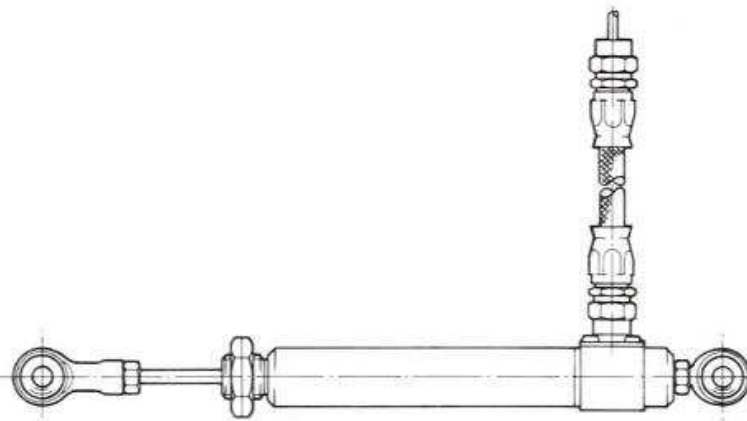
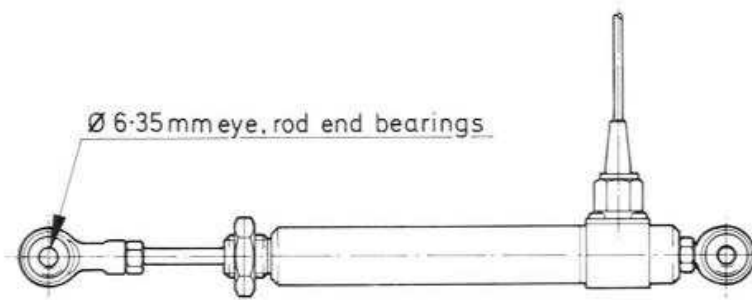


#### VERSION 7 (DRXXX/7)

Captive core and extension rod.  
Rod end bearings on body and extension rod. Side exit with 4 pin connector.  
Weatherproof (IP55).

#### VERSION 8 (DRXXX/8)

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



#### VERSION 9 (DRXXX/9)

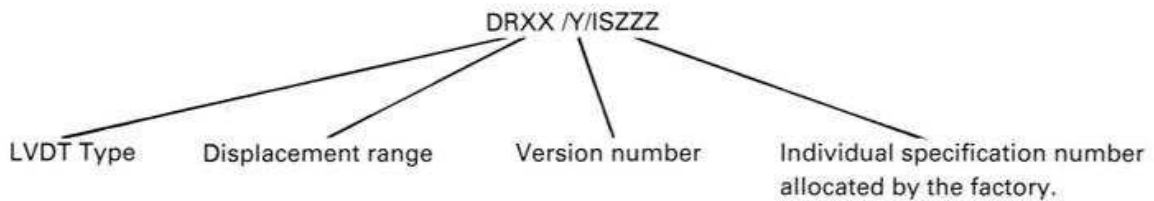
Captive core and extension rod.  
Rod end bearings on body and extension rod. Side exit via 4 core PTFE cable in stainless steel braided flexible conduit, ending in 1/4 BSP re-usable coupling, 2m in length, other lengths optional. Weatherproof or submersible versions available.

| TRANSDUCER TYPE- (VERSIONS 7,8 & 9)                | DR 25 | DR 50 | DR 100 | DR 150 |
|--|-------|-------|--------|--------|
| TOTAL DISPLACEMENT RANGE (mm)                      | 25    | 50    | 100    | 150    |
| DIMENSION 'A' (mm)                                 | 234   | 313   | 391    | 463    |
| DIMENSION 'B' (mm)                                 | 302   | 407   | 561    | 709    |
| OVERTRAVEL AT EACH END AT LEAST 5 % OF TOTAL RANGE |       |       |        |        |

## SPECIFICATION

|                                    |                                       |
|------------------------------------|---------------------------------------|
| Input .....                        | 10 - 24v dc. stabilised               |
| Operating temperature range .....  | -20°C to +90°C                        |
| Survival temperature range .....   | -55°C to +95°C                        |
| Null voltage .....                 | 0 V DC                                |
| Ripple .....                       | Less than 25 mV rms                   |
| Linearity .....                    | ± 0.5% full range (0.3% by selection) |
| Stability .....                    | 0.125% full scale                     |
| Temperature                        |                                       |
| Coefficient of/ Scale factor ..... | 0.08%/°C                              |
| Shock survival .....               | 200 g for 20 milliseconds             |
| Vibration tolerance .....          | 10 g up to 2 kHz                      |
| Housing material .....             | Non magnetic stainless steel (EN58)   |
| Frequency response .....           | 200 Hz                                |
| Output load .....                  | 50K ohms                              |
| Output voltage .....               | As below ± 20%                        |

## ORDERING INFORMATION



| TRANSDUCER TYPE:-             | DR25 | DR50 | DR100 | DR150 |
|-------------------------------|------|------|-------|-------|
| TOTAL DISPLACEMENT RANGE (mm) | 25   | 50   | 100   | 150   |
| FULL RANGE OUTPUT (VOLTS)     | 2.8  | 3.1  | 3.0   | 2.9   |
| WEIGHT EXC. CABLE (GRMS)      | 370  | 440  | 620   | 720   |

We reserve the right to alter the specification without notification.

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