

# SR SERIES LVDT DISPLACEMENT TRANSDUCER



- INDUSTRIAL FORMAT
- AC INPUT, AC OUTPUT
- SIDE OR END EXIT
- PHOSPHOR BRONZE OR PTFE BUSHES
- PLUG, CABLE OR FLEXIBLE CONDUIT OUTLETS
- 150° OPERATION  
175° OPERATION (CABLE OUTLETS)
- SPRING LOADED OR ROD END BEARINGS
- WEATHERPROOF OR SUBMERSIBLE VERSIONS

The SR Series LVDT Displacement Transducer consists of a magnetically shielded liner variable differential transformer contained within the outer stainless steel body. The robust construction makes the SR series ideal for applications requiring a durable, accurate, industrial position feedback transducer.

Various configurations are available to accommodate most applications. Spring loaded or guided core, connector or integral cable. Spring loaded versions are available with either side or end exit, whilst non spring loaded versions, complete with rod end bearings on body and probe, are only available as a side exit outlet.

The LVDTs are designed to operate from low voltage AC supplies at frequencies from 50HZ to 5KHz.

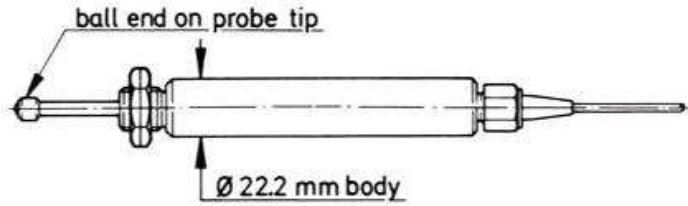
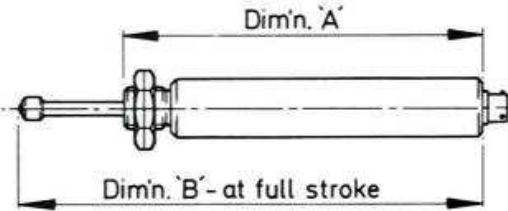
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**SENSONICS**

**SR Series LVDT DISPLACEMENT TRANSDUCER**

**VERSION 1 (SRXXX/1)**

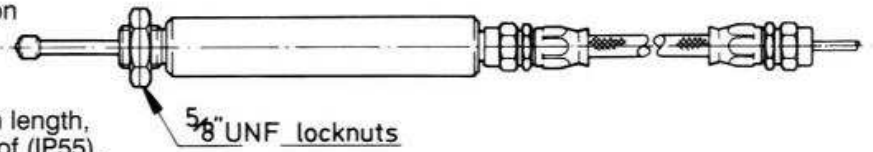
Spring loaded, captive core and extension rod. Ball end on extension rod. End exit with 6 pin connector. Weatherproof. (IP55).

**VERSION 2 (SRXXX/2)**

Spring loaded, captive core and extension. Ball end on extension rod. End exit via 6 core PTFE cable 2m in length. Other lengths optional. Weatherproof. (IP55).

**VERSION 3 (SRXXX/3)**

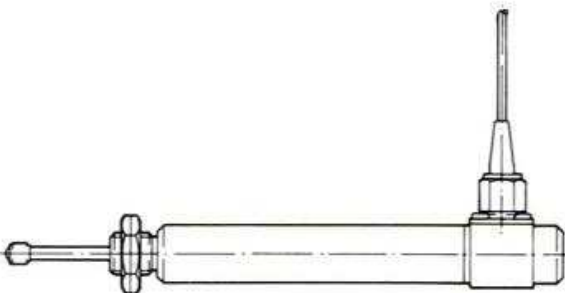
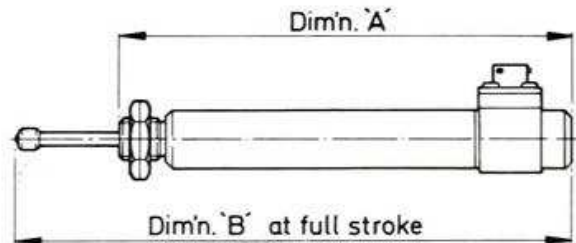
Spring loaded, captive core and extension rod. Ball end on extension rod. End exit via 6 core PTFE cable in stainless steel braided flexible conduit, ending in ¼ BSP re-usable coupling, 2m in length, other lengths optional. Weatherproof (IP55).



TRANSDUCER TYPE:- (VERSIONS 1, 2 & 3)	SR25	SR50	SR100	SR150
TOTAL DISPLACEMENT RANGE (mm)	25	50	100	150
DIMENSION 'A' (mm)	132	204	290	361
DIMENSION 'B' (mm)	170	269	405	526
OVERTRAVEL AT EACH END AT LEAST 5% OF TOTAL RANGE				

**VERSION 4 (SRXXX/4)**

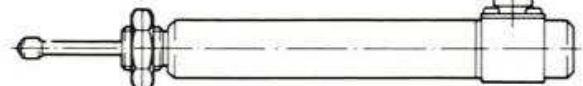
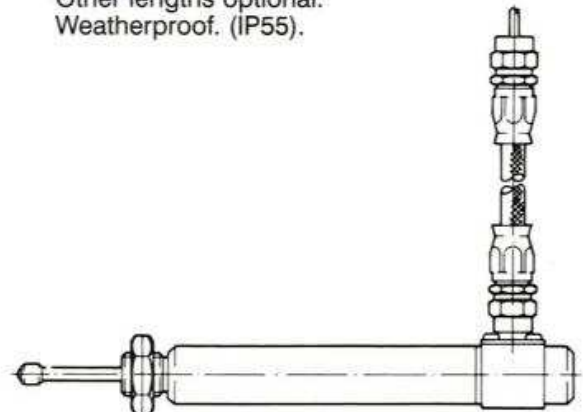
Spring loaded, captive core and extension rod. Ball end on extension rod. Side exit with 6 pin connector Weatherproof. (IP55).

**VERSION 5 (SRXXX/5)**

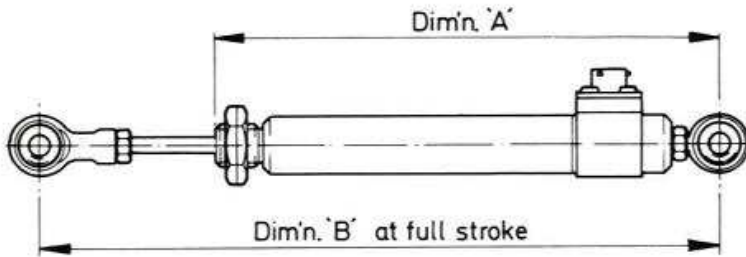
Spring loaded, captive core and extension rod. Ball end on extension rod. Side exit via 6 core PTFE cable 2m in length. Other lengths optional. Weatherproof. (IP55).

**VERSION 6 (SRXXX/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 ¼ BSP re-usable coupling, 2m in length. Other lengths optional. Weatherproof or submersible versions available.

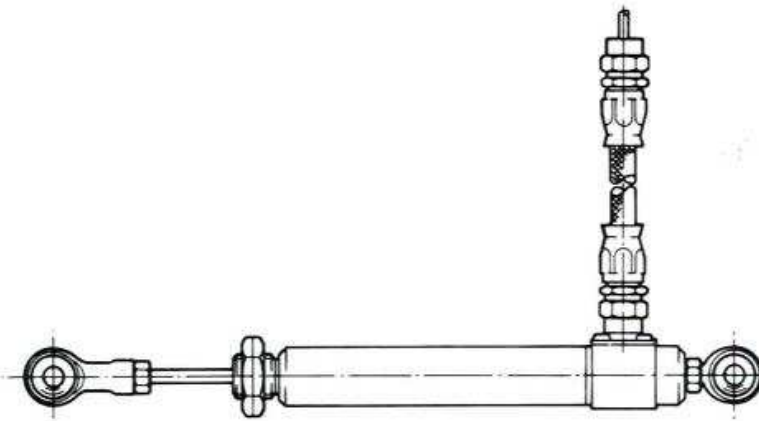
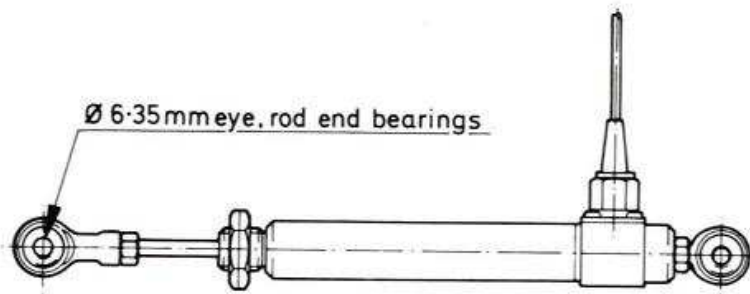


TRANSDUCER TYPE:- (VERSIONS 4, 5 & 6))	SR25	SR50	SR100	SR150
TOTAL DISPLACEMENT RANGE (mm)	25	50	100	150
DIMENSION 'A' (mm)	164	236	321	392
DIMENSION 'B' (mm)	205	304	437	559
OVERTRAVEL AT EACH END AT LEAST 5% OF TOTAL RANGE				



**VERSION 7 (SRXXX/7)**  
 Captive core and extension rod.  
 Rod end bearings on body and extension rod. Side exit with 6 pin connector. Weatherproof (IP55).

**VERSION 8 (SRXXX/8)**  
 Captive core and extension rod.  
 Rod end bearings on body and extension rod. Side exit via 6 core PTFE cable, 2m in length, other lengths optional. Weatherproof (IP55).



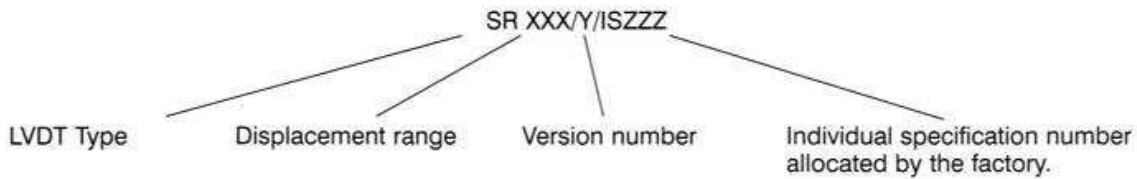
**VERSION 9 (SRXXX/9)**  
 Captive core and extension rod.  
 Rod end bearings on body and extension rod. Side exit via 6 core PTFE cable in stainless steel braided flexible conduit, ending in 1/4 BSP re-usable coupling, 2m in length, other lengths optional. Weatherproof or submersible versions available.

TRANSDUCER TYPE:- (VERSIONS 7, 8 & 9)	SR25	SR50	SR100	SR150	SR200	SR250	SR300	SR400	SR500	SR600
TOTAL DISPLACEMENT RANGE (mm)	25	50	100	150	200	250	300	400	500	600
DIMENSION 'A' (mm)	184	255	340	411	469	526	605	720	834	950
DIMENSION 'B' (mm)	255	348	485	605	716	823	959	1166	1380	1600
OVERTRAVEL AT EACH END AT LEAST 5% OF TOTAL RANGE										

## SPECIFICATION

Input voltage .....	From less than 1V to 10V RMS
Input frequency.....	50Hz to 5KHz
Maximum recommended primary current .....	20mA
Working temperature range .....	-40°C to +150°C (spring loaded & connector versions) (175°C integral cable & non spring loaded versions)
Survival temperature range .....	-50°C to +150°C (180°C integral cable)
Linearity.....	Better than 0.5% of reading
Body material.....	EN 58 (Non-magnetic stainless steel)
Core material .....	EN 56 (Magnetic stainless steel)
Calibration I/P signal.....	5V RMS @ 3KHz

## ORDERING INFORMATION



TRANSDUCER TYPE:-	SR25	SR50	SR100	SR150	SR200	SR250	SR300	SR400	SR500	SR600
TOTAL DISPLACEMENT RANGE (mm)	25	50	100	150	200	250	300	400	500	600
FULL RANGE OUTPUT (mv/v at 3 KHz)	350	460	720	780	880	1000	720	480	400	432
NULL VOLTAGE (% F.R.O.)	0.6	0.4	1.2	1.6	0.7	0.5	0.2	0.6	0.8	0.2
PRIMARY IMPEDANCE (at 3KHz) ( $\Omega$ )	540	200	550	550	420	570	370	340	390	350
PRIMARY RESISTANCE ( $\Omega$ )	120	120	180	260	260	260	200	480	300	250
SECONDARY IMPEDANCE ( $\Omega$ )	240	200	350	560	470	700	500	610	670	410
SECONDARY RESISTANCE ( $\Omega$ )	160	190	340	470	460	580	450	800	400	390
ZERO PHASE FREQUENCY (KHz)	2.4	3.8	3.7	4.0	3.7	2.5	3.0	5.0	4.1	4.5
WEIGHT EXC. CABLE (GRMS)	310	420	560	660	760	840	980	1000	1100	1200
SENSITIVITY (mV/V/mm)	14	9.2	7.2	5.2	4.4	4	2.4	1.2	0.8	0.72

We reserve the right to alter the specification without notification.



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