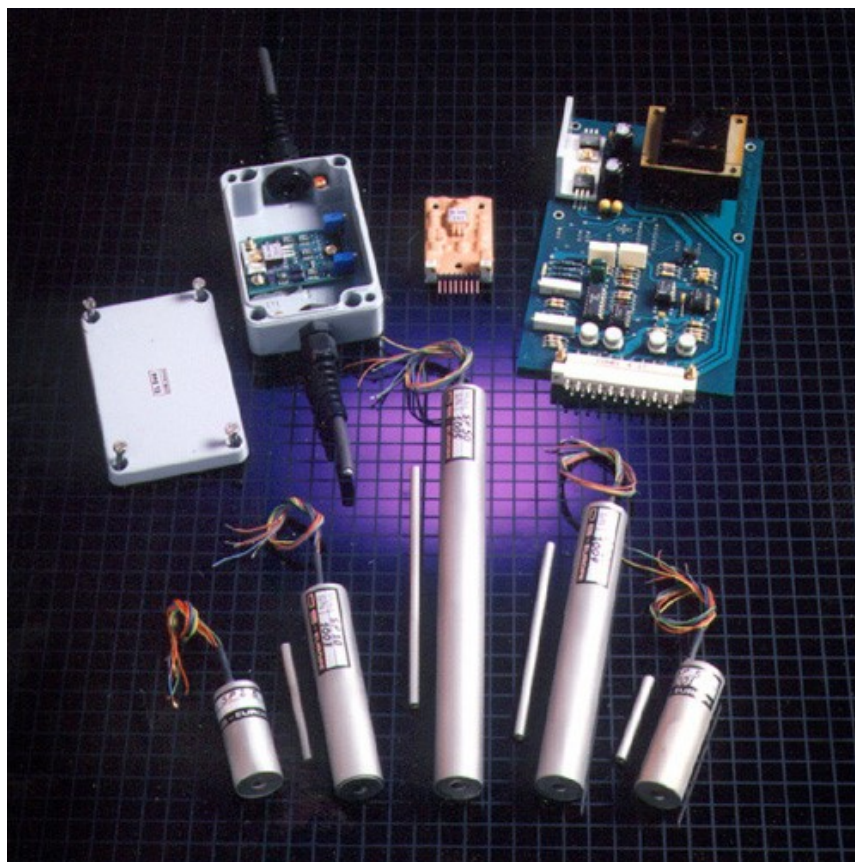


## DISPLACEMENT TRANSDUCERS SERIE SP



### DESCRIPTION

The transducers Series SP consists of two main parts: the cylindrical body of the transducer and the movable core. The cylindrical body encloses a differential transformer (=LVDT) and it has an axial bore in which can move, without physical contact, the core which position produces an electrical signal proportional to its displacement.

SP transducers are characterized by :

- Axial bore with internal metal tube
- Metal external housing and metal end lids
- Internal encapsulation and impregnation by insulation varnishes
- Generous radial clearance of the bore to allow a frictionless displacement of the core
- Great number of turns of the coils to assure: an infinite resolution, an high transformation rate and, together, measures extended to 1/100.000 th of Full scale.

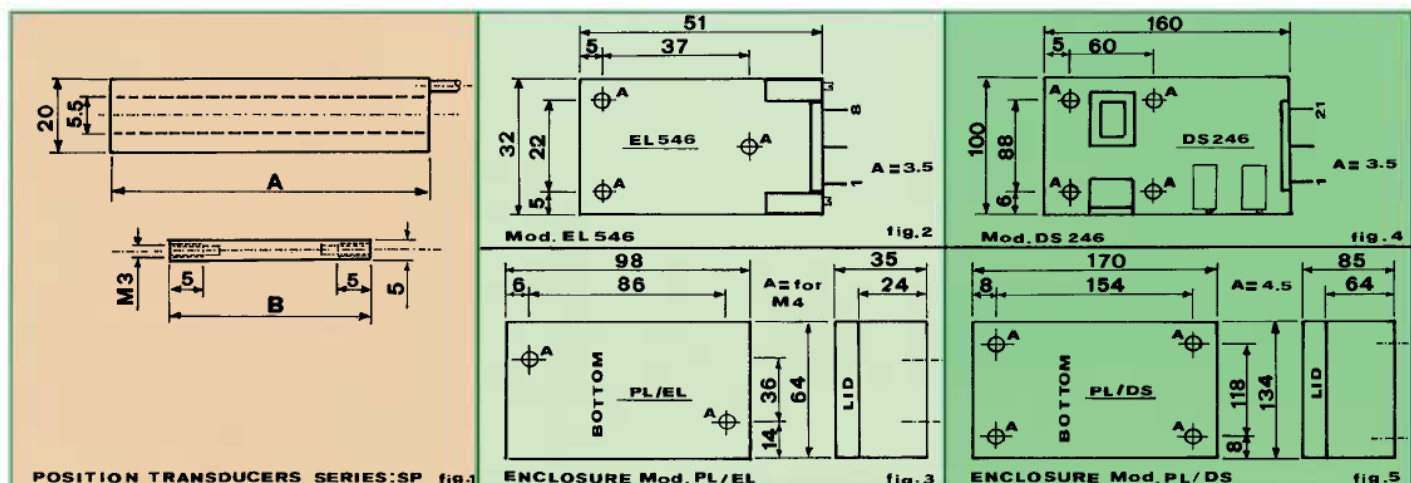
These transducers can be used for: feedback control of actuators, scales, weighing systems, gauge-heads, machines, measuring instruments, general purpose where high resolution, sensitivity, linearity and convenient price are required.

SP transducers can be connected to EL546 signal conditioner which is equipped with a zero and a gain trimmers for the calibration of the transducer.

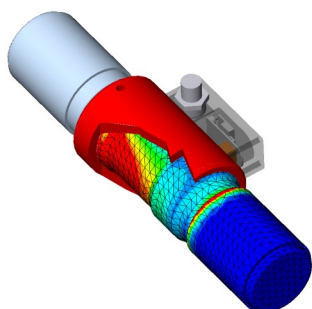
## TECHNICAL CHARACTERISTICS

Mod.	Stroke ± mm	Sensitivity mV/V/mm	Zero phase at KHz	Resistance		Sizes		Core weight grams	OTHER SPECIFICATIONS The values listed in this table are typical and for excitation: 2,5 KHz.
				prim.	sec.	A	B		
SP 2,5	± 2,5	200	1,7	20	140	45	26	5	Non linearity: 0,25% FS.
SP 5	± 5	100	1,0	90	210	61	34	7	Excitation: 1+10 Vpp; suggested: 6 Vpp.
SP 12,5	± 12,5	40	4,7	15	40	94	41	8	Frequency range.: 0,4+10 KHz; suggested: 2,5 KHz.
SP 25	± 25,4	20	2,0	65	200	136	61	8	Null voltage: ≤ 0,5%FS, typical.
SP 50	± 50	10	1,5	320	580	200	61	12	Temperature effect on zero and sensitivity: ≤ 0,01% FS/°C
SP 100	± 100	5	1,8	650	1000	342	91	17	Operating temperature range: -55+ + 110°C.
									Colour code: secondaries: black-yellow; primary: 2 = red; common: blue-green.
The frequency at phase zero primary/secondaries coincides to the best linearity and null voltage and to the lowest temp. sensitivity.									

## OVERALL DIMENSIONS



## DEVELOPMENT AND MANUFACTURING OF CUSTOM PRODUCTS



S2Tech technical department, with 30 years of experience acquired with DS Europe, can develop products accordingly to customers technical specifications with the following tools:

- 3D mechanical design CAD software stations
- Finite Element Analysis **FEA** software stations
- Digital and analog electronic development accordingly to EMC (=CE) stricter industrial marking regulations
- Software and embedded firmware development accordingly to most popular industrial bus system (CANopen, Modbus, PROFIBUS)
- Fast prototyping

S2Tech develops new products or modifies existing ones, in order to realize the fittest and more convenient product.