

# SX 12 V SERIES LVDT LINEAR DISPLACEMENT TRANSDUCERS

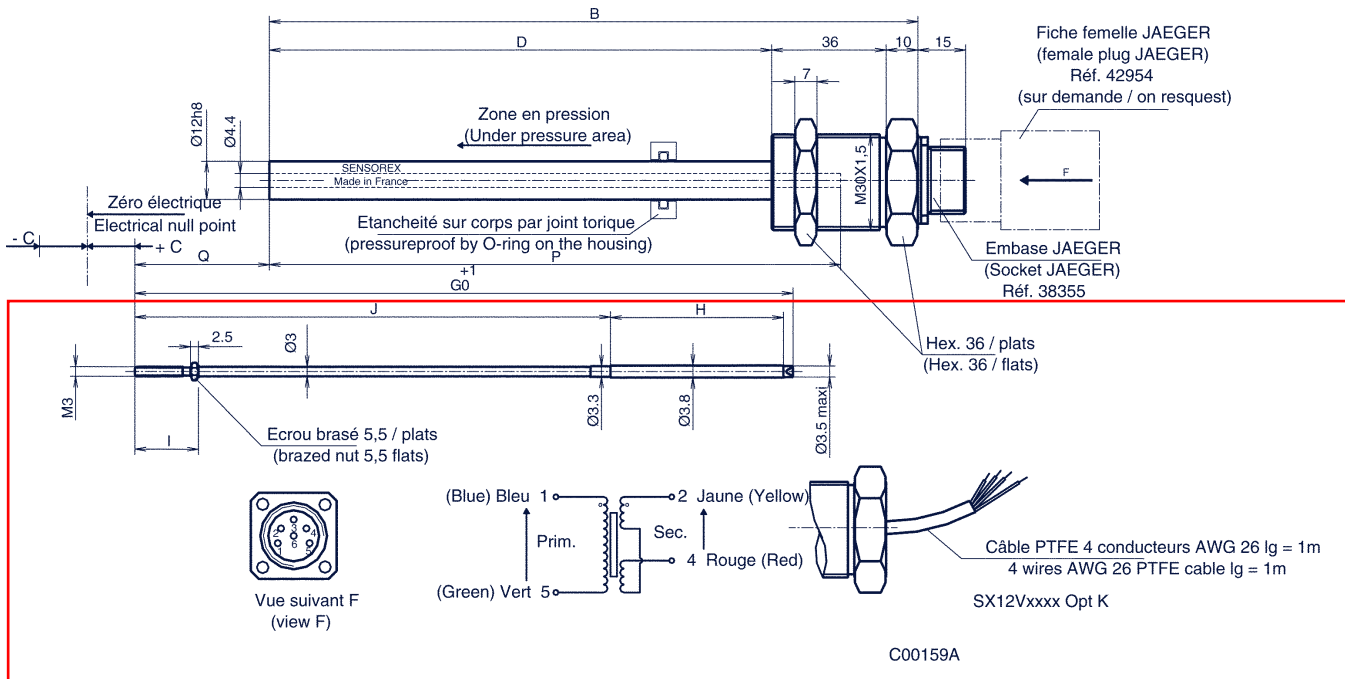


This transducer has been especially designed to be used in servo-actuators

## GENERAL SPECIFICATIONS

Nominal electrical stroke	± 12.5 mm to ± 150 mm
Primary sine excitation	2.2 Vrms nominal (6V peak to peak)
Excitation frequency	400 Hz to 15 kHz (3500 Hz nominal)
Maximum consumption	≤ 10 mW
Linearity error	≤ ± 0.3% FSO
Resolution and hysteresis	non detectable
Residual null	≤ 0.5% FSO
Temperature range	- 40°C to +100°C (125°C for 500 h) 150°C (HP option)
Thermal sensitivity drift	≤ 500 ppm/°c
Shock resistance	1000 G / 5 ms
Vibration resistance tolerance	12 G peak to peak up to 2 kHz
Dielectric strength	500 V dc/ 1 mn
Insulation resistance	≥ 1 MOhm
Protection index (dust particles)	IP 65
Max pressure	150 bar standard (350 bar optional)

## DIMENSIONS AND ELECTRICAL WIRING



### SX 12 V

#### Connector output

Standard: JAEGER screw plug  
HP version: JAEGER plug bayonet and screw  
(female plug not supplied)

### SX 12 V OPT. K

#### Cable output

4 wires PTFE insulated 26 gauge tinned

Nota: Temp. < 125°C

## TRANSDUCERS

References	Stroke (mm)	Body weight (g)	Dimensions				
			B	D	P	Q	Q opt HP
SX 12 V 025	± 12.5	265	96	50	76.5	69.5	68.0
SX 12 V 050	± 25	300	132	86	109.3	63.7	62.2
SX 12 V 075	± 37.5	305	168	122	146.0	50.5	49.0
<del>SX 12 V 100</del>	<del>± 50</del>	<del>335</del>	<del>204</del>	<del>150</del>	<del>179.7</del>	<del>42.5</del>	<del>40.8</del>
SX 12 V 150	± 75	345	276	230	251.0	50.0	48.5
SX 12 V 200	± 100	370	348	302	326.0	30.0	30.0
SX 12 V 250	± 125	400	396	350	376.0	30.0	30.0
SX 12 V 300	± 150	420	457	411	440.0	30.0	30.0

## CORE RODS

References	Core rod weight (g)	Dimensions				Core rod code
		G	H	J	I	
SX 12 V 025	10	140.6	37.8	99.8	10.5	11 02 75
SX 12 V 050	11	158.0	34.0	121.0	20.0	11 02 76
SX 12 V 075	12	188.5	54.4	131.0	20.0	11 02 77
<del>SX 12 V 100</del>	<del>15</del>	<del>207.0</del>	<del>54.4</del>	<del>149.0</del>	<del>20.0</del>	<del>11 02 78</del>
SX 12 V 150	18	266.0	56.0	207.0	20.0	11 02 79
SX 12 V 200	22	307.0	69.0	235.0	20.0	10 00 88
SX 12 V 250	25	372.0	80.0	289.0	7.0	10 00 87
SX 12 V 300	28	423.5	80.0	340.5	7.0	11 03 01

## ELECTRICAL SPECIFICATION

(MEASUREMENTS AT 3500 HZ / 2.2 V / 23°C / LOAD: 100 KOHM)

References	Stroke (mm)	Sensitivity (mV/V/mm)	Impedance (Ohm)		Phase Pr/Sec (degrees)
			Prim.	Sec.	
SX 12 V 025	± 12.5	34.00	1280	311	-6.0
SX 12 V 050	± 25	17.00	760	315	+3.0
SX 12 V 075	± 37.5	11.30	1450	330	0.0
<del>SX 12 V 100</del>	<del>± 50</del>	<del>8.50</del>	<del>1340</del>	<del>275</del>	<del>+2.0</del>
SX 12 V 150	± 75	5.70	1470	360	+3.0
SX 12 V 200	± 100	4.25	800	300	+3.0
SX 12 V 250	± 125	3.40	495	160	+6.0
SX 12 V 300	± 150	2.80	570	275	+21.0

- Core glued and crimped.
- Mechanical overstroke ≥ 5 mm except 025 HP and HPK = 4 mm.
- Connector or PTFE cable output.
- Threaded end and zero mechanical setting.
- Diameter 12 steel housing (FE-Ni 50), core in blackened XC10 steel.
- Pressureproof by O ring on diameter 12 housing.
- Core rod diameter 3 mm with M3 threaded end.

## OPTIONS

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**HP:** Pressure 350 bar static, temperature  $\leq 150^{\circ}\text{C}$

**K:** Shielded cable output (1 meter length)  
4 PTFE tinned insulated wires gauge 26  
Temperature  $\leq 125^{\circ}\text{C}$

## NOTA

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The pressure option does not mean the output (cable, connector) is pressureproof.

When used in fatigue, the admissible pressures must be multiplied by 0.75.

The transducers are tested at the specified pressure during 1 minute.

## ORDERING CODE

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## ORDERING CODE FOR CORE ROD

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See table overleaf.

## ACCESSORIES

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- Spare core rod assembly.
- Special core assembly.
- 6 pin female plug:
  - . Standard ( $100^{\circ}\text{C}$ ): JAEGER 042954 (screwfitting)
  - . HP version ( $150^{\circ}\text{C}$ ): JAEGER 532356 (bayonet fitting).

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