

Sensorex®

# LVDT for servo-actuators SX12V



## Characteristics

- Core glued and crimped
- Connector or PTFE cable output
- Threaded end and zero mechanical setting
- Pressure proof by O ring on diameter 12 housing
- Diameter 12 steel housing (Fe-Ni 50), core in blackened XC10 steel

## Applications

- Servo-actuator's pressure chamber

Meggitt (Sensorex) SX12V sensor is specially designed for servo-actuator's pressure chamber.

It can resist to a static pressure of 350 bar.

It has a threaded end, necessary for its fixation and for the zero mechanical adjustment.

This sensor SX12V exists in two versions :

- 6 pins connector output
- PTFE cable output (4 wires)

This sensor is an AC/AC LVDT; it has to be used with a conditioning unit model SX3120, SX9130...

All our signal conditioners are detailed in chapter "electronic conditioners".

Meggitt Sensing Systems

Our measurement product competencies:  
LVDTs | Inertial systems | Inclometers | Accelerometers | IMU |  
MEMS sensors | Servo-inclinometer | Conditioners

**MEGGITT**  
smart engineering for  
extreme environments



Sensorex®

# LVDT for servo-actuators

## SX12V

### Environmental characteristics

Operating temperature	-40°C to +100°C (125°C during 500 h) and 150°C with HP option
Static pressure	150 bar (standard) and 350 bar (HP option)
Vibrations	12g peak to peak up to 2kHz
Shocks	1000g/ 5ms
Protection	IP 65

### General specifications at +25°C

Electrical stroke	±12.5mm to ±150mm
Primary sine excitation	2.2Vrms nominal (6V peak to peak)
Excitation frequency	3500 Hz nominal (400Hz to 15kHz)
Consumption	≤10mW
Non linearity	< ±0.3% of full scale
Resolution et hysteresis	Non measurable
Zero null voltage	≤0.5% of full scale
Sensitivity thermal drift	≤300ppm/°C
Dielectric strength	500Vdc/ 1 min
Insulation resistance	≥1 Mohm

### Electrical specifications at +23°C

Electrical stroke (mm)	±12.5	±25	±37.5	±50	±75	±100	±125	±150
Sensitivity (mV/V/mm)	34	17	11.30	8.50	5.70	4.25	3.40	2.80
Primary impedance (Ohms)	1280	760	1450	1340	1470	800	495	570
Secondary impedance (Ohms)	311	315	330	275	360	300	160	275
Phase (primary/ secondary) (°)	-6.0	+3.0	0.0	+2.0	+3.0	+3.0	+6.0	+21.0

### Contact

Meggitt (Sensorex)  
Archamps Technopôle  
196 Rue Louis Rustin  
74166 ARCHAMPS- France  
Tel: 04 50 95 43 70  
Fax: 04 50 95 43 75  
[www.sensorex.fr](http://www.sensorex.fr)  
[www.meggitt.com](http://www.meggitt.com)

Meggitt Sensing Systems

Our measurement product competencies:  
LVDTs | Inertial systems | Inclinoimeters | Accelerometers | IMU |  
MEMS sensors | Servo-inclinometer | Conditioners

**MEGGITT**  
smart engineering for  
extreme environments

Sensorex®

# LVDT for servo-actuators

## SX12V

### Standard versions – selection guide

Electrical stroke	Connector output	1m cable output	5m cable output	10m cable output
±12.5mm	690110270	690100043	Consult us	Consult us
±25mm	690110271	690100044	690100567	690100645
±37.5mm	690110272	690100045	Consult us	690100284
±50mm	690110273	690100046	690100384	690100714
±75mm	690110274	690100047	690100285	690100684
±100mm	690110268	690100048	Consult us	Consult us
±125mm	690110303	690100086	690100572	Consult us
±150mm	690110300	690100049	Consult us	Consult us

### HP versions – selection guide

Electrical stroke	Connector output	1m cable output	5m cable output	10m cable output
±12.5mm	690100050	690100058	Consult us	Consult us
±25mm	690100051	690100059	Consult us	Consult us
±37.5mm	690100052	690100060	Consult us	690100648
±50mm	690100053	690100061	690100349	Consult us
±75mm	690100054	690100062	690100616	Consult us
±100mm	690100055	690100063	690100652	690100730
±125mm	690100056	690100064	Consult us	Consult us
±150mm	690100057	690100065	Consult us	Consult us

### Options

Designation	Product reference
Special core rod thread length : 7mm	Consult us
SX12VxxHP Jaeger female plug	490513044
SX12Vxx Jaeger female plug	490513040

### Contact

Meggitt (Sensorex)  
Archamps Technopôle  
196 Rue Louis Rustin  
74166 ARCHAMPS- France  
Tel: 04 50 95 43 70  
Fax: 04 50 95 43 75  
[www.sensorex.fr](http://www.sensorex.fr)  
[www.meggitt.com](http://www.meggitt.com)

Meggitt Sensing Systems

Our measurement product competencies:  
LVDTs | Inertial systems | Inclinoimeters | Accelerometers | IMU |  
MEMS sensors | Servo-inclinometer | Conditioners

**MEGGITT**  
smart engineering for  
extreme environments