

Sensorex®

## DC/DC LVDT sensors – Ø 20mm SX20MExR



### Characteristics

- Integrated signal conditioner
- Rugged, stainless steel housing
- Economical
- Modularity (gauge head and swivel joints options)
- Reinforced core rod (6mm diameter)

### Applications

- Monitoring of structures
- Dimensional controls
- Test benches

Meggitt (Sensorex) SX20MER/MECR/MEC2R series combine the advantages of LVDT technology (strength, reliability, contactless) with integrated electronics.

They deliver a 4/20mA and 0/10V calibrated output proportional to the stroke, and require a 24 VDC power supply.

From a single housing, several configuration are available :

- SX20MER : Cable output
- SX20MECR : M12 connector output
- SX20MEC2R : M12 connector output, swivel joints, guided core rod

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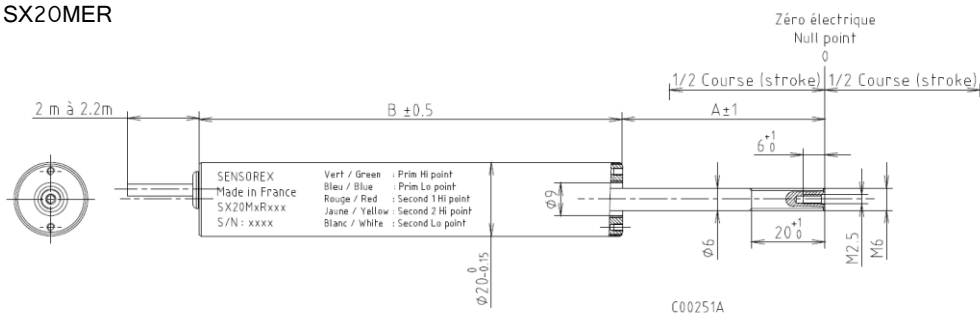
Our measurement product competencies:  
LVDTs | Inertial systems | Inclinoimeters | Accelerometers | IMU |  
MEMS sensors | Servo-inclinometer | Conditioners

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smart engineering for  
extreme environments

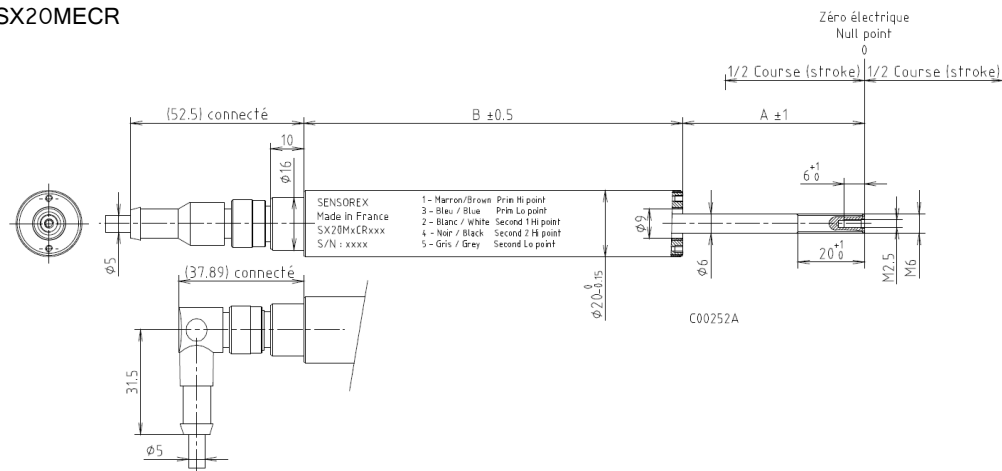
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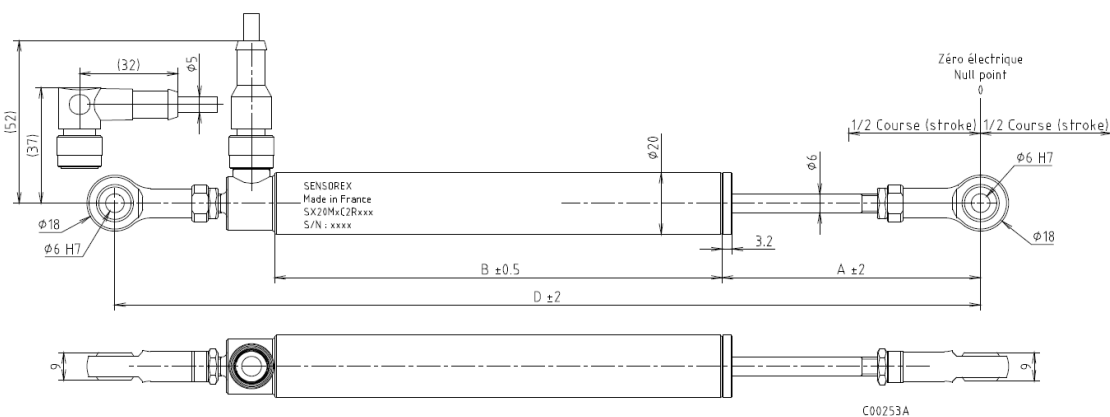
## SX20MER



## SX20MECR



## SX20MEC2R



## Contact

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## SX20MExR

### Dimensions

Electrical stroke	A (mm)	A (mm) (SX20MEC2R)	B ±0.5 (mm)	C (mm) swivel joints option for SX20MER)	D ±2mm (for SX20MEC2R)
±2.5mm	40	57.5	99	199	208
±5mm	40	57.5	99	199	208
±10mm	55	72.5	115	230	239
±15mm	65	82.5	144	269	278
±25mm	80	97.5	173	313	322
±50mm	125	142.5	259	444	453
±100mm	205	222.5	400	665	674
±150mm	250	/	495	805	/

### Environmental characteristics

Operating temperature	-40°C to +85°C
Vibrations	10grms (20Hz to 2000Hz)
Shocks	100g/ 11ms
Protection	IP 66 (SX20MER) & IP67 (SX20MECR/SX20MEC2R)
Electronic board protection	Tropicalization

### General specifications at +25°C

Electrical stroke	±2.5mm to ±150mm
Power supply	24Vdc ±10Vdc
Consumption (except current output)	15mA typical, 30mA max
Calibrated current output	4–20 mA ±1%
Maximum acceptable load	(V power supply–3)/0.02 Ω
Calibrated voltage output	0/10V ±1%
Voltage output impedance	500 Ω
Non linearity	<0.25% of FS <0.50% of FS for stroke ±150mm
Output accuracy	<0.50% of FS <1% of FS for strokes ±2.5mm/ ±5mm & ±150mm
Bandwidth	375Hz ±10% (2 <sup>nd</sup> order)
Noise	<10mV peak to peak, <3mVrms
Zero thermal drift	<80ppm/°C /FS
Sensitivity thermal drift	<300ppm/°C/measure

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### Electrical characteristics at +23°C

Electrical stroke (mm)	±2.5	±5	±10	±15	±25	±50	±100	±150
Nominal sensitivity current output (µA/mm ±1%)	3200	1600	800	533	320	160	80	53
Nominal sensitivity voltage output (mV/mm ±1%)	2000	1000	500	333	200	100	50	33

### Selection guide

Electrical stroke	SX20MER	SX20MECR	SX20MEC2R
±2.5mm	690150502	690150503	690150505
±5mm	690150512	690150513	690150515
±10mm	690150522	690150523	690150525
±15mm	690150532	690150533	690150535
±25mm	690150542	690150543	690150545
±50mm	690150552	690150553	690150555
±100mm	690150562	690150563	690150565
±150mm	690150572	690150573	/

### Options

Designation	Product reference
Swivel joints	690150590
2m shielded cable– straight female plug	690150405
10m shielded cable– straight female plug	690150406
2m shielded cable– bent female plug	690150407
10m shielded cable– bent female plug	690150408
Straight female plug for shielded cable	690150409
Gauge head kit– stroke 005/010 mm	690150580
Gauge head kit– stroke 020 mm	690150582
Gauge head kit– stroke 030 mm	690150583
Gauge head kit– stroke 050 mm	690150584
Gauge head kit– stroke 100 mm	690150585
Gauge head kit– stroke 200 mm	690150586
Gauge head kit– stroke 300 mm (without spring return)	690150587

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