Sensorex®

Twin axis submersible servo-inclinometer SX41600 ATEX & IECEx

Utilization range

- Electrical:

  24VDC ±4VDC power supply with a 350Ω max. load on the current output
- Protection index:

  This servo-inclinometer has an IP 67 protection index
- Temperature :

  Operating temperature:

  -40°C/ +85°C

  Storage temperature:

  -55°C/ +85°C

Applications

- LNG ship pitch and roll measurements
- Offshore platform stabilization
- Gas turbine positioning

(IS) SX41600 twin axis submersible servo-inclinometer technology is identical to the one of SX41200 servo-inclinometer.

It is a continuous power supply inclinometer, with a 4-20mA analog output, proportional to the sine of inclination. Measurement range is the same on both axis.

This servo-inclinometer is particularly appropriate for hard environment applications. Its floated sensitive element allows it to withstand against high vibration and shock levels.

Besides, its electronic circuit is designed to be insensitive to electro-magnetic perturbations.

It has a rugged 904L stainless steel box, a submersible connector, and is delivered with a male plug and 2 meter cable.

This servo-inclinometer can be used :
- In surface industries
- In permanent presence of gaseous (zone 0) or dusty (zone 20) explosive atmosphere
- With the gas listed in subdivisions IIA, IIB or IIC

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General specifications at +25°C

Power supply	24Vdc ±4Vdc -50 mA max (except current output)						
Output signal	4-20mA						
Max. load resistance	350 ohms						
Noise (on 100Ω load)	≤ 2mVrms						
Output impedance	≤ 240 ohms						
Non linearity	≤ ±0.05% of FS						
Zero null voltage	≤0.15% of FS						
Non repeatability et hysteresis	≤0.001% of FS						
Cross axis sensitivity	≤0.005g/g						
Housing sensitive axis alignment	±0.5°						
Zero thermal drift	≤0.01% of FS/°C						
Sensitivity thermal drift	≤0.01% of measure/°C						
Bandwidth (±2Hz)	±1°	±3°	±5.75°	±14.5°	±30°	±45°	±90°
	3.5Hz	3.5Hz	3.5Hz	5Hz	6.5Hz	8.5Hz	10Hz
Vibrations	5g eff. from 10Hz to 500Hz						
Shocks	200g-6ms						

Note: (IS) SX41600 servo-inclinometer must be associated to intrinsically safe devices and these combinations must be compatible as regards intrinsic safety rules.

Selection guide

Range	Product reference	Marking details	T6 for Ta	T5 for Ta	T4 for Ta	T130° for Ta
±1°	690041611	Ex ia IIB ou IIC T6...T4/Ex t IIIC T130°C	<40°C	<55°C	<85°C	<85°C
±3°	690041621	Ex ia IIB ou IIC T6...T4/Ex t IIIC T130°C	<40°C	<55°C	<85°C	<85°C
±5.75°	690041631	Ex ia IIB ou IIC T6...T4/Ex t IIIC T130°C	<40°C	<55°C	<85°C	<85°C
±14.5°	690041641	Ex ia IIB ou IIC T6...T4/Ex t IIIC T130°C	<40°C	<55°C	<85°C	<85°C
±30°	690041651	Ex ia IIB ou IIC T6...T4/Ex t IIIC T130°C	<40°C	<55°C	<85°C	<85°C
±45°	690041661	Ex ia IIB ou IIC T6...T4/Ex t IIIC T130°C	<40°C	<55°C	<85°C	<85°C
±90°	690041671	Ex ia IIB ou IIC T6...T4/Ex t IIIC T130°C	<40°C	<55°C	<85°C	<85°C

Options

- Special bandwidth
- Specific range and output (0.1g to 1g)

Contact

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