

Sensorex®

Submersible servo-accelerometer (Z) SX41170 ATEX



This single axis servo-accelerometer is designed to be used in vertical position; the gravity acceleration is compensated.

The 4-20mA current output is proportional to the acceleration.

This servo-accelerometer is particularly appropriate for hard environment applications. Its floated sensitive element allows it to withstand against high vibration and shock levels. Its mechanical design allows it to resist to 100 bar external pressure.

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

This servo-accelerometer can be used :

- In surface industries
- In permanent presence of gaseous explosive atmosphere
- With the gas listed in subdivisions IIA, IIB, IIC

Utilization range

- Electrical :
Power supply: 19 VDC to 30 VDC with a 350 Ω max. load
- Protection index:
This servo-accelerometer has an IP 68 protection index
- Temperature :
Operating temperature:
-40°C/+85°C
Storage temperature:
-55°C/ +85°C

Applications

- Vertical acceleration measurement
- Crane-ship turret stabilization

Meggitt Sensing Systems

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

MEGGITT
smart engineering for
extreme environments

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Submersible servo-accelerometer (Z)

SX41170 ATEX

General specifications at +25°C

Power supply	19V to 30V (350 ohms max. load on current output)
Range (*)	±0.5g
Consumption	≤ 30mA (except current output)
Output signal	4-20mA ±0.08mA
Noise	≤ 2mVrms
Non linearity	≤ ±0.05% of FS
Zero null voltage	≤ 0.15% of FS
Non repeatability et hysteresis	≤ 0.001% of FS
Output impedance	≤ 240 ohms
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
Pressure	100 bar max.
Vibrations	5 g eff. from 10Hz to 500Hz
Shocks	200g-6ms

Note: this servo-accelerometer 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	T5 for Ta	T4 for Ta
±0.5g	690641407	Ex ia IIC or IIB T5...T4	<70°C	<85°C

(*) others measurement ranges are available. Please contact our Sales Department.

Note: the cable length could be 1 meter to 100 meters, and should be specified with the order. If nothing is specified with the order, the accelerometer will be delivered with a 2 meter cable.

Contact

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