

# SV\*/DTSS

Intrinsically safe  
single component seismometer



Measurement,  
processing and digital  
transmission  
three-component  
seismic signal  
to local hub  
LKP  
measuring

- integrated non-frequency the GS-1 seismometers from the Geospace company with a digital transceiver module in a common casing
- conversion of analog signals from seismometers into a digital form
- measuring module of seismic signals of the ARAMIS M/E system or the INGENIO system
- data transmission to the OCGA digital surface receiver module or underground the OCGD local measuring concentrator LKP
- synchronization of a generator clocking AC converters
- intrinsically safe device of a group I category M1 with protection level „ia”, that can work with a level measuring concentrator „ia” or „ib” security features



# SV\*/DTSS

Intrinsically safe single component  
seismometer

## TECHNICAL DATA

- ✓ Number of registered components
- ✓ Own frequency of low-frequency sensors GS-1-LF
- ✓ Permissible angle of deviation from the vertical during operation
- ✓ Responsivity
- ✓ Maximum coil displacement in each sensor
- ✓ Shock resistance
- ✓ The weight of the moving mass in each sensor
- ✓ Maximum current consumption
- ✓ Frequency bandwidth (without probe) - frequency bandwidth frequencies limited by the anti-static filter

- ✓ Customizable high-pass filter
- ✓ Resolution of the A/C conductor
- ✓ Processing dynamics (total SNR)
- ✓ Sampling frequency
- ✓ Adjustable gain
- ✓ Measurement data buffer
- ✓ Transmission type

- ✓ Synchronization
- ✓ Special conditions of use
- ✓ Range of transmission

- ✓ Casing protection degree
- ✓ Additional function
- ✓ Mounting method

one: Z  
1.0 Hz  $\pm$  10%  
 $\pm$  7.5°

118 V · m/s  
 $\leq$  6,35 mm P-P  
50 G  
700 g  $\pm$  5%  
35 mA  
250 Hz mode - 0 - 103,25 Hz  
500 Hz mode - 0 - 206,5 Hz  
1 kHz mode - 0 - 413,0 Hz  
2 kHz mode - 0 - 826,0 Hz

from 0.1 Hz to 1 Hz with the possibility of turning it off  
24 bits  
130 dB @250 Hz  
250 Hz, 500 Hz, 1 kHz, 2 kHz  
x2, x4, x8, x16, x32, x64, x128  
up to 10 measuring samples  
DTSS - impulse digital teletechnical transmission  
power line

copper line, impulse  
 $T_{\text{environment}} = +0^{\circ}\text{C} \div +50^{\circ}\text{C}$   
lower OCGD up to 2,5 km  
surface OCGA up to 10 km  
IP 65

seismometer test, forced mass movement  
SS3d - anchor, floor  
SS3u - anchor, roof  
DD3f - pins, floor

The device complies with the requirements for explosion-proof devices and can be used as a device of group I in M1 category.

Type of explosion proof casing:



EX I M1 Ex ia I Ma

Examination certification type:

OBAC 18 ATEX 0059X

Compliance with safety requirements ensured by compliance with the standard:

PN-EN 50303:2004  
PN-EN 60079-0:2013  
PN-EN 60079-11:2012

Conformity mark

