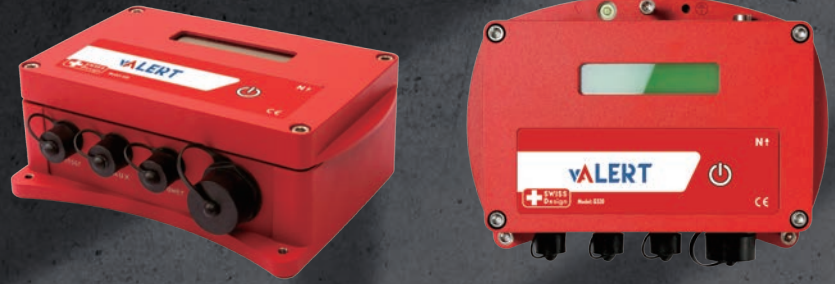# vALERT
G320

vALERT G320 is a 24-bit velocity sensor designed for vibration applications in construction or structural health. Its built-in geophone sensors are at a high dynamic range of 130dB. The IP67 protection allows users to apply to vibration research applications, as well as geological surveys.

vALERT G320 provides DIN4150-3 German vibration standard which is able to perform on-site calculation and give instant reports with its computing capability. vALERT G320 has an open platform for those who have established self vibration algorithms but have had hard time finding a suitable hardware to put into practice. vALERT G320 supports cloud service – G320 Cloud, by which users have easy and quick accesses to upload or download data remotely.

Features

Built-in or External Geophone Sensors

Multiple Vibration Standards

Open Platform

On-site Calculation and Cloud Services

Edge Computing Capability

Best Suited

Vibration Monitoring of Highway and Railway Bridges

Residential Buildings

Vibration Monitoring of Tunnel Structures

Adjacent and Neighboring during construction works

Application

✔ **Industrial Disaster Prevention**

✔ **Structural Health Monitoring (SHM)**

✔ **Vibration Assessments For Geotechnical Structures**

Specification — vALERT G320

Specification	vALERT G320
Sensor Type	Tri-axial geophone (built in or externally connected)
Measuring Range	28.8 V/m/s 7.5 %
Dynamic Range	130 dB
Sample Rate	100 SPS, 200 SPS, 500 SPS, 1,000 SPS
Frequency Response	1 ~ 500Hz
ADC	3-channel @ 24-bit
Algorithm	DIN 4150-3
RTC Accuracy	60 sec/year Optional: NTP or GPS
Output	Ethernet, Compatible with Modbus Protocol (RTU or TCP / IP)
Built-in Watch Dog Function	±10s
Network Module	10/100 Base -TX Ethernet Controller
LED Display	Support
CPU	ARM1176JZF-S 700 MHz
Storage	16 GB Micro SD Card (expandable)
Power Supply	12 ~ 30V DC
Power Consumption	3W @ 12V DC
Operating Temperature	-20 °C ~ 70 °C
Waterpoof	IP67
Dimension (L x W x H)	217 x 168 x 80 mm