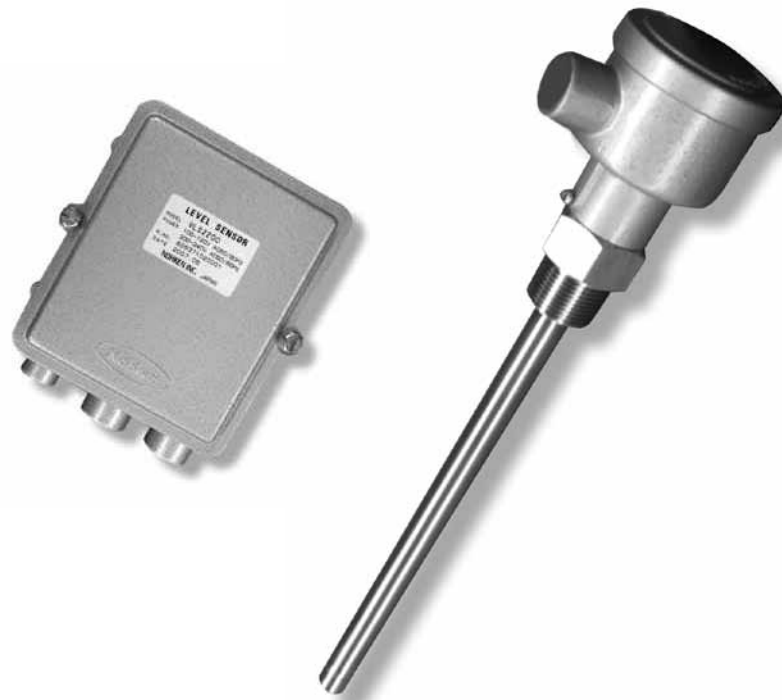


# MODEL VLS12, 22, 32

SEPARATED VIBRATION LEVEL SENSOR



## General Description

The remote controller system is available for severe vibration on hopper or high ambient temperature. Model VLS2200 remote controller can be mounted up to 200 meter away from the sensor Models VLS12, 22, 32. All field adjustments are made at the VLS2200 controller. VLS12 is a standard type with length of 270mm fixed. VLS22 is a pipe extension version up to 2500mm for plug mounting and 4000mm for flange mounting. VLS32 is a cable extension version up to 6000mm from top mounting.

## Operational Description

The vibration rod of new VLS series is constructed by using the electro magnet and the permanent magnet. When the electro magnet is energized, the electro magnet and permanent magnet are attracted and repulsed. This movement makes vibration.

The construction of vibration probe is similar to the motor. When the motor is energized by the battery, the back electromotive current is generated by the influence of permanent magnet and coil. When the vibration rod is covered with solids or powdered material, the current flowing to the lead wire is increased by damping of the back electromotive current. The controller detects the shifting of current level, and converts to output signal.

## Features

- Remote controller system
- Self-diagnostic function
- 200m Max. separation distance provides isolation from severe vibration or high temperature on hoppers
- New principle of operation and vibration rod construction (Patent)
- Less subject to build up and dead stock

## Ordering Information

VLS12	Standard
VLS22	Pipe Extension
VLS32	Cable Extension
	N Plug mounting
	F Flange mounting
	G Flange with protective shield, available VLS12G
	0 Flat-face flange
	1 Raised-face flange
	4 Plug mounting
	J JIS flange
	A ANSI flange
	D DIN flange
	G G plug
	R R plug
	T NPT plug
	S 304 stainless steel
	S6 316 stainless steel

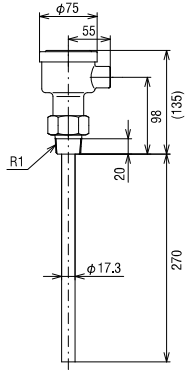
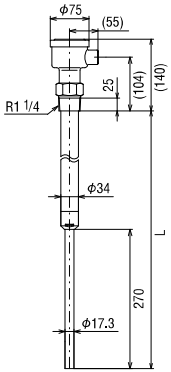
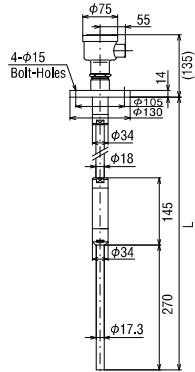
VLS12 | N | 4 | R | S = VLS12N-4RS

\* The mounting size should be specified when you order.

\* The length of probe should be specified in mm if required.

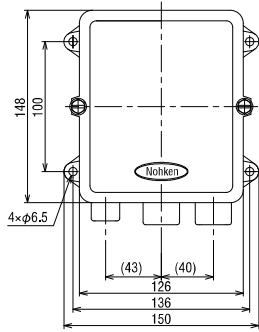
## Specifications

### Sensor

Model	VLS12N	VLS12F	VLS22N	VLS22F	VLS32F
Description	Standard		Pipe Extension		Cable Extension
Drawing					
Measuring Object	Powder, Granular material, Pellets and Underwater sediments				
Mounting	R1	JIS5K50A	R1-1/4	JIS5K50A	JIS5K50A
Operating Temperature	-20 to 60°C				
Housing	-20 to 150°C (180°C option)				
Vibration rod	-20 to 70°C				
Maximum Pressure	2 MPa (Except a mounting part)				1 kPa
Concentrated load	0.55 kN Max. (at the tip of detection pipe)				
Maximum Humidity	95% RH				
Sensitivity	Bulk density of 0.2g/cm³ Min.				
Vibration Frequency	Approx. 300 to 500Hz				
Material	Housing		ADC12		
	Vibration rod		304SS*		
	Extension		304SS*		PVC
Cable Entry	G1/2				
Protection	Housing		IP65		IP65
	Vibration rod		IP68		IP65

\*The material of 316SS is optionally available.

### Amplifier

Model	VLS2000
Drawing	
Supply Power	100 to 120V AC/200 to 240V AC 50/60Hz or 24V DC option
Power Consumption	Approx. 5VA Max.
Relay Output	1 SPDT, 250V 3A AC, 30V 3A DC (Resistive) C-NO: Normally Open contact C-NC: Normally Closed contact
Detection Time Delay	Approx. 3 to 5 seconds for covered Approx. 3 to 5 seconds for free
Environmental Temperature	-20 to 60°C
Maximum Humidity	95% RH
Material	ADC12
Cable Entries	G1/2 with two of I.D. 9 bushing and one of I.D. 10 bushing
Protection	IP54
Fail Safe	High or Low by switch
Indication	Green LED for Power status Red LED for Relay status Yellow LED for Detection status