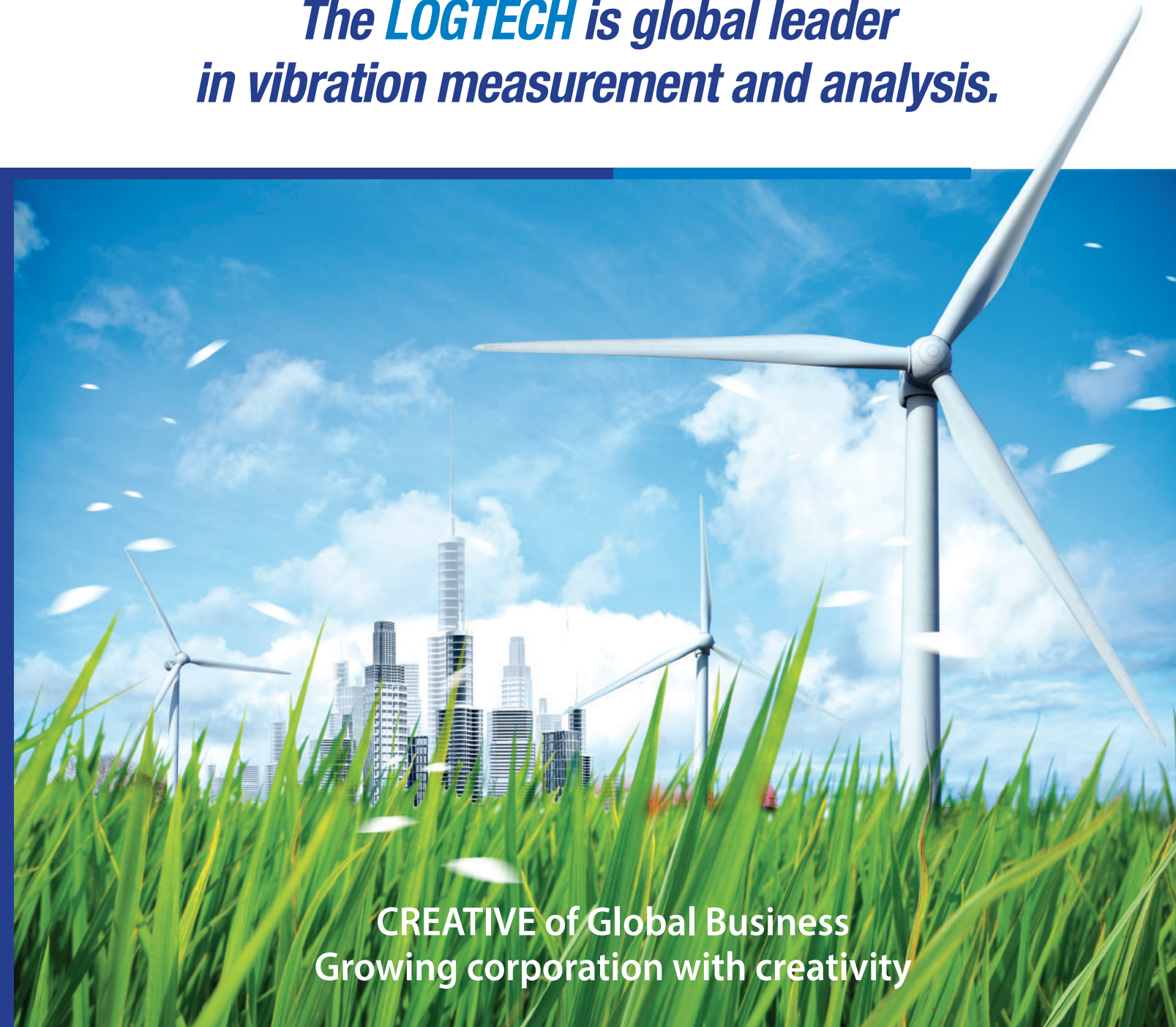


*The **LOGTECH** is global leader  
in vibration measurement and analysis.*



**LOGTECH CO., LTD.**

Address : #706,707 Gungang Hightech Valley 1st 177,  
Sagimakgol-ro, Jungwon-gu, Seongnam-si,  
Gyeonggi-do, 462-724 Rep. of KOREA  
Tel : +82-31-777-5885 / <http://www.Logtech.co.kr> /  
E-mail : [sales@Logtech.co.kr](mailto:sales@Logtech.co.kr)



**CREATIVE of Global Business  
Growing corporation with creativity**





## Welcome to Logtech!

Logtech has been recognized as a technical leader of the vibration sensor and data-logging industry.

With over 30 years of combined experience in the industry Logtech has been established by the experts who have the in-depth knowledges and practical experiences of designing, fabricating, testing, and delivery of the rotator and measuring devices.

Today, as one of the prominent Data collection device companies, Logtech offer total solutions for alleviating inconveniences caused by the technical difficulties of data measuring and collecting devices, and this integrated approach allows us to offer our customer sophisticated yet easy-to-use devices

Logtech's experts collaborate across fundamental engineering principles and the latest measuring technologies to deliver the integrated solutions which ensure customers to improve their precision, productivity and achieve business goals.

We help customer overcome noise in data acquisition and proficiently handle the acquired data and processing signal by fabricating both dynamic data logger & static data logger all while providing power supply unit and sensor input section.

## Mission

- Develop and provide new standards to control vibration & noise
- Promote the growth of noise & vibration businesses

## Vision

- Keep providing the highest quality, reliable equipment and faithful services.
- To be recognized as the leading provider of sustainable solutions for vibration & noise

## Experience

With over 20 years of practical experience, Logtech have accumulated expertise and knowledges for developing vibration measurement equipment and providing suitable solutions for noise and vibration problems.

## Technology

Logtech have the latest technology and exclusive patent which enable us to develop complete line of instrumentation to measure and monitor vibration, including non-contact eddy current displacement sensor, speed sensor and servo type acceleration sensor. Logtech's next step is constantly researching and developing MEMS acceleration sensors and lead the vibration industry's technology standard.

## Quality

Logtech is dedicated to supplying high quality products which meet and exceed the requirements of our customers. The Crystal Instruments management team is committed to continous service and training program improvement towards customer satisfaction. These principles are applied to all operations regarding Logtech's production of vibration test and measurement equipment.



## Company History

**Feb. 2002** : Establishment of LOGTECH in Sunnam-si, Gyeonggi-do

**Oct. 2003** : Manufacture of piezo-acceleration sensors

**Mar. 2004** : Development of acceleration sensor for low frequency

**Oct. 2005** : Development of velocity sensor for equipment diagnosis

**Mar. 2007** : Development of eddy-current type displacement sensor

**Jun. 2008** : Acquirement of ISO 9001:2008 certification

**Jan. 2009** : Development of Electro-magnetic type shaker

**Mar. 2009** : Development of acceleration sensor for earthquake detecting

**Mar. 2010** : Acquirement of CE for eddy-current type displacement sensor (LT-DP-33)

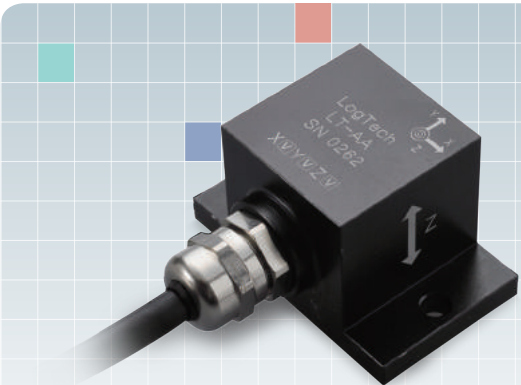
**Jan. 2012** : Registraton of patent for Servo-type acceleration sensor (NO. 10-1105310)

**Apr. 2012~16** : Exhibited at Hannover MESSE in Germany (Vibration Sensor)



[ LT-AA ] Series

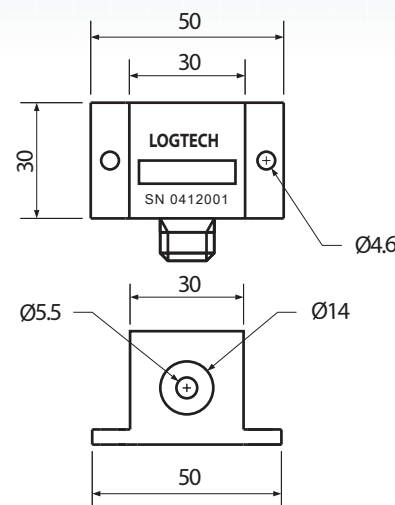
General purpose industrial acceleration sensor



APPLICATION

- General Industrial Equipments & Construction
- Bridge
- Tunnel
- Motors
- Pumps
- Fans
- Compressors
- Cooling Tower
- Engines
- Gear Boxes
- Rotor Blade

Outline Dimensions



FEATURES

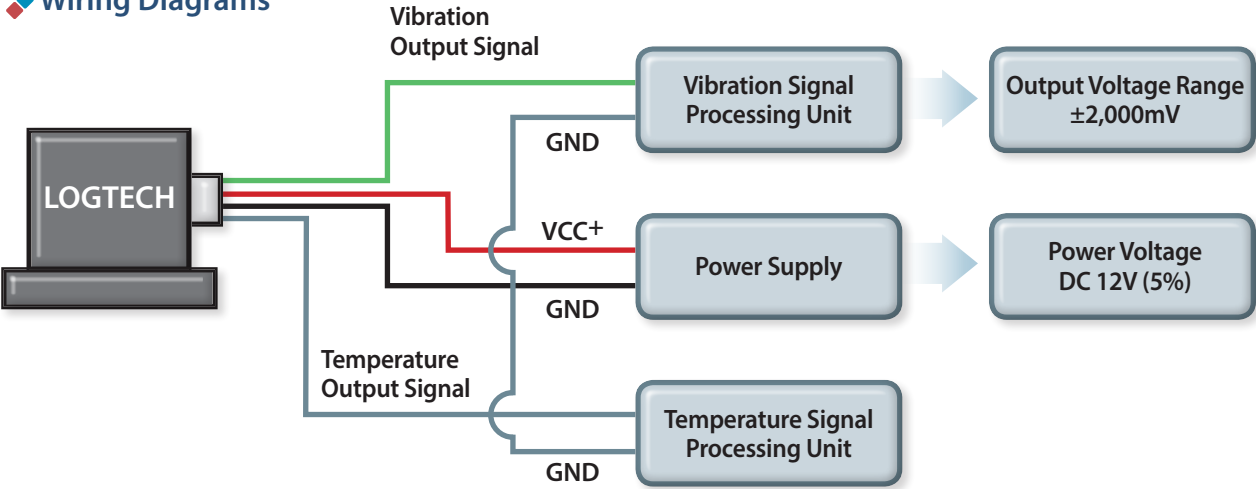
- Acceleration Response
- Low Frequency Response
- Hermetically Sealed
- Case Isolated
- ESD Protection
- Rugged Design
- Temp sensor inside (option)

Specifications

\* Conversion Factor 1g = 9.81 m/s<sup>2</sup>

Dynamics		
Frequency Response	0.5 to 1,000 Hz	< ±3dB
Measurement Range	±1 g	< ±5%
Sensitivity	1,000 mV/g	< ±5%
Resonant Frequency	10 kHz	
Resolution	0.001 g	
Transverse Sensitivity	≤ 5 %	
Electrical		
Excitation Voltage	9 to 24VDC	*Nominal 12VDC
Output Bias Voltage	2,500 mV	
Full scale Output Voltage	2,500mV ± 2,000mV	
Case Isolation	> 100 MΩ	
Mechanical		
Connector Type	SW-8W-6R (6-Pin)	option
Case Material	Duralumin	
Case Size	50 x 30 x 30 mm	
Weight	Approx. 65g	
Environmental		
Shock Limit	1,000 g peak	
Enclosure Rating	IP67	
Temperature Range	- 20 to + 85 °C	

Wiring Diagrams



Related Other Products



[LT-AA] Accessory Mounting adaptor  
[LT-V4] Indicator / Signal controller  
[ LT-SPU ] Signal conditioner  
[ LT-MMDS ] Analysis software

Ordering Information

LT - AA -  -  -

Sensing Axis	Frequency Range	Measurement Range
01 : 1-Axis	01 : 1,000 Hz	01 : ± 1g
02 : 2-Axis	02 : 2,000 Hz	02 : ± 5g
03 : 3-Axis	03 : 5,000 Hz	03 : ± 10g
		04 : ± 50g



## [ LT-MA ] Series

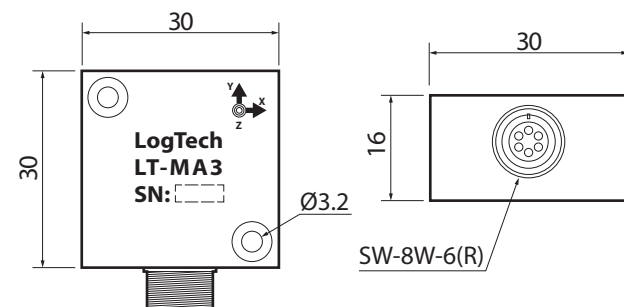
General purpose industrial acceleration sensor



### APPLICATION

- General Industrial Equipments
- Motors
- Pumps
- Fans
- Compressors
- Cooling Tower
- Engines
- Gear Boxes
- Rotor Blade

### Outline Dimensions



### FEATURES

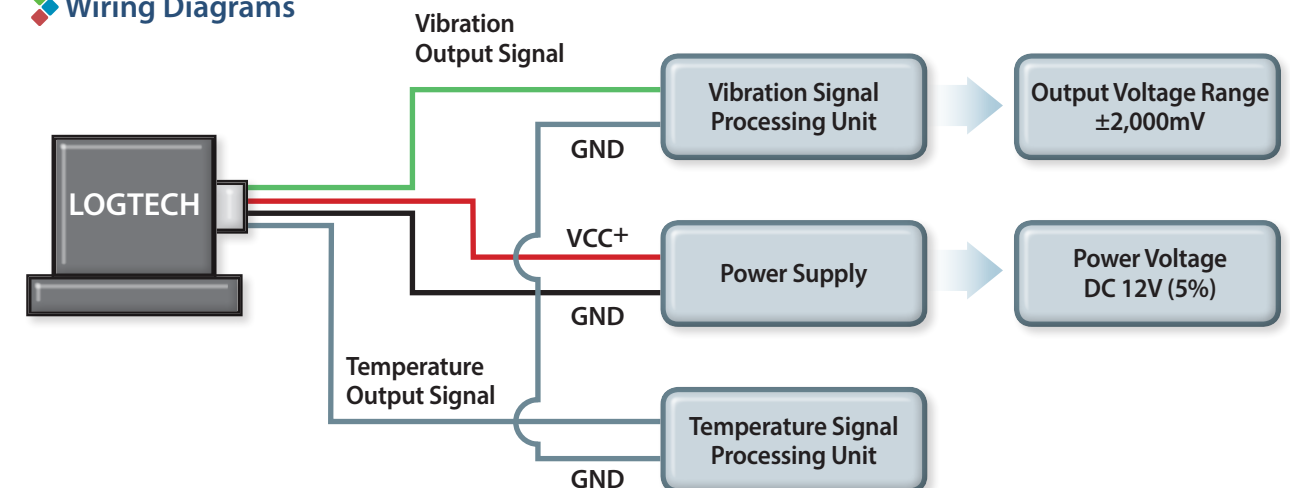
- Acceleration Response
- Wide Frequency Response
- Hermetically Sealed
- Case Isolated
- ESD Protection
- Rugged Design

### Specifications

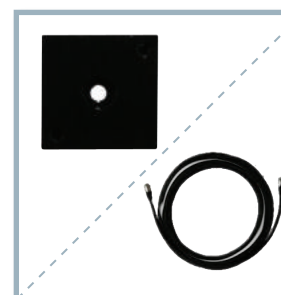
\* Conversion Factor 1g = 9.81 m/s<sup>2</sup>

Dynamics		
Frequency Response	1 to 2,000Hz	< ±3dB
Measurement Range	±10 g	< ±5%
Sensitivity	200mV/g	< ±5%
Resonant Frequency	10 kHz	
Resolution	0.001 g	
Transverse Sensitivity	≤ 5 %	
Electrical		
Excitation Voltage	9 to 24VDC	*Nominal 12VDC
Output Bias Voltage	2,500 mV	
Full scale Output Voltage	2,500mV ± 2,000mV	
Case Isolation	> 100 MΩ	
Mechanical		
Connector Type	SW-8W-6R (6-Pin)	
Case Material	Duralumin	
Case Size	16 x 30 x 30 mm	
Weight	Approx. 40g	
Environmental		
Shock Limit	1,000 g peak	
Enclosure Rating	IP67	
Temperature Range	- 20 to + 85 °C	

### Wiring Diagrams



### Related Other Products



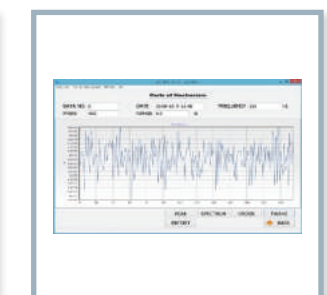
**[LT-MA3]**  
Accessory /  
Mounting adaptor /  
Cable Assembly



**[LT-V4]**  
Indicator /  
Signal controller



**[ LT-SPU ]**  
Signal conditioner



**[ LT-MMDS ]**  
Analysis software


### Ordering Information

LT - MA			
	Sensing Axis	Frequency Range	Measurement Range
	03 : 3-Axis	01 : 1,000 Hz	01 : ± 1g
		02 : 2,000 Hz	02 : ± 5g
		03 : 5,000 Hz	03 : ± 10g



[ LT-SMA ] Series

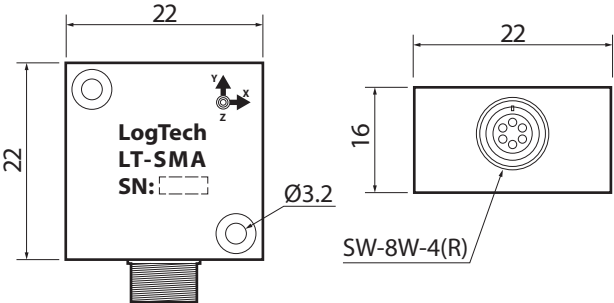
General purpose industrial acceleration sensor



**APPLICATION**

- Factory Automation
- Transfer System
- Compressors
- Cooling Tower
- Engines
- Gear Boxes
- Motors
- Pumps
- Fans
- Rails

**Outline Dimensions**

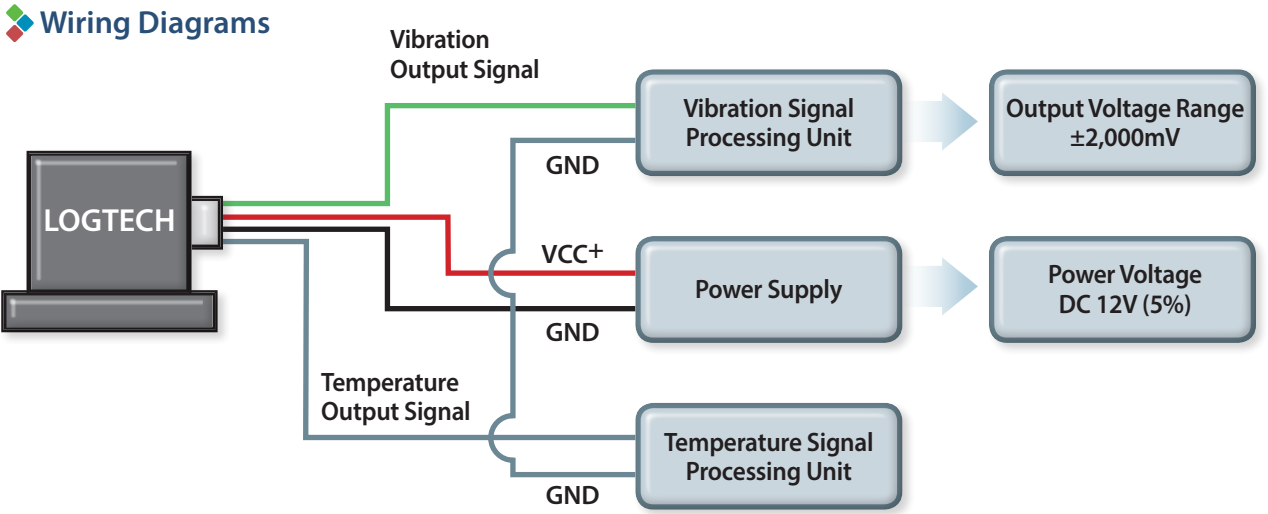


**FEATURES**

- Acceleration Response
- Small Size
- Hermetically Sealed
- Case Isolated
- ESD Protection
- Rugged Design
- Flexible wire

Specifications

* Conversion Factor 1g = 9.81 m/s <sup>2</sup>		
Dynamics		
Frequency Response	5 to 2,000Hz	< ±3dB
Measurement Range	±10 g	< ±5%
Sensitivity	100mV/g	< ±5%
Resonant Frequency	10 kHz	
Resolution	0.001 g	
Transverse Sensitivity	≤ 5 %	
Electrical		
Excitation Voltage	9 to 24VDC	*Nominal 12VDC
Output Bias Voltage	2,500 mV	
Full scale Output Voltage	2,500mV ± 2,000mV	
Case Isolation	> 100 MΩ	
Mechanical		
Connector Type	SW-8W-4R (4-Pin)	
Case Material	Duralumin	
Case Size	16 x 22 x 22 mm	
Weight	Approx. 25 g	
Environmental		
Shock Limit	1,000 g peak	
Enclosure Rating	IP67	
Temperature Range	- 20 to + 85 °C	



Related Other Products



[LT-SMA]  
Accessory /  
Mounting adaptor /  
Cable Assembly



[LT-V4]  
Indicator /  
Signal controller



[ LT-SPU ]  
Signal conditioner



[ LT-MMDS ]  
Analysis software

Ordering Information

LT – SMA – □□ – □□ – □□

<b>Sensing Axis</b> 01 : 1-Axis	<b>Frequency Range</b> 01 : 1,000 Hz 02 : 2,000 Hz 03 : 5,000 Hz	<b>Measurement Range</b> 01 : ± 1g 02 : ± 5g 03 : ± 10g
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[ LT-AAS ] Series

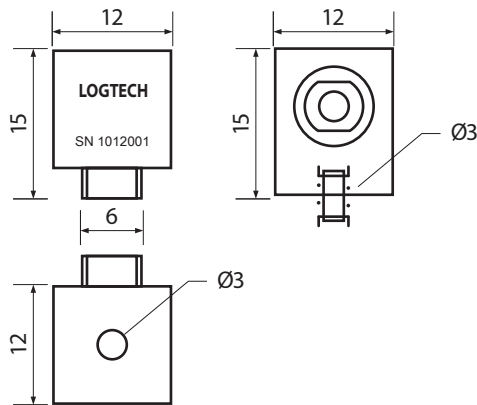
Special purpose industrial acceleration sensor



**APPLICATION**

- Automatic Assemble line
- Mobile Test
- Car Test
- Small Equipment
- Light Equipment
- Small Motor
- Narrow Bands of Equipment
- Small Device
- General industrial Equipment's

Outline Dimensions



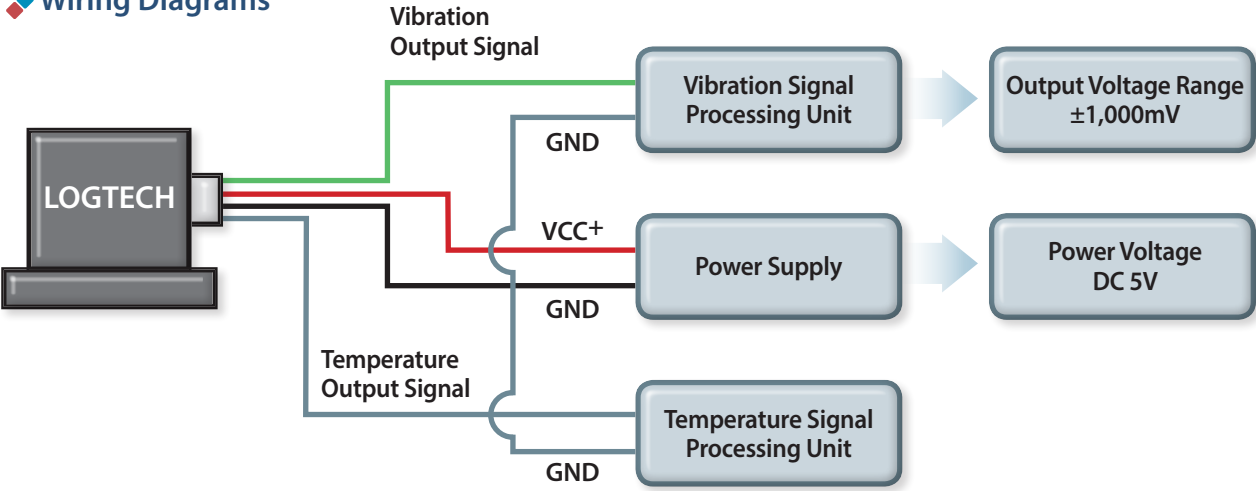
- FEATURES**
- Acceleration Response
  - Small size
  - Light weight
  - Hermetically Sealed
  - Case Isolated
  - ESD Protection
  - Rugged Design
  - Temp sensor inside (option)

Specifications

\* Conversion Factor 1g = 9.81 m/s<sup>2</sup>

Dynamics		
Frequency Response	1 to 1,000 Hz	< ±3dB
Measurement Range	±1g	< ±5%
Sensitivity	1,000 mV/g	< ±5%
Resonant Frequency	10 kHz	
Resolution	0.001 g	
Transverse Sensitivity	≤ 5 %	
Electrical		
Excitation Voltage	DC 5V	
Output Bias Voltage	2,500 mV	
Full scale Output Voltage	2,500 mV ± 1,000 mV	
Case Isolation	> 100 MΩ	
Mechanical		
Connector Type		
Case Material	Duralumin	
Case Size	12 x 12 x 15 mm	
Weight	Approx. 5g	
Environmental		
Shock Limit	1,000 g peak	
Enclosure Rating	IP67	
Temperature Range	- 20 to + 85 °C	

Wiring Diagrams



Related Other Products



**[LT-AAS]**  
Accessory  
Mounting adaptor/  
Cable Assembly



**[LT-V4]**  
Indicator /  
Signal controller



**[ LT-SPU ]**  
Signal conditioner



**[ LT-MMDS ]**  
Analysis software

Ordering Information

**LT – AAS** – ☐ ☐ – ☐ ☐ – ☐ ☐

Sensing Axis	Frequency Range	Measurement Range
01 : 1-Axis	01 : 500 Hz	01 : ± 1g
	02 : 1,000 Hz	02 : ± 5g
		03 : ± 10g



## [ LT-RAA ] Series

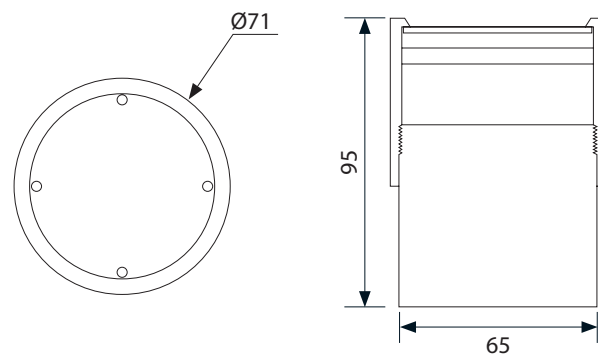
General purpose wireless acceleration sensor



### APPLICATION

- Factory Automation
- Transfer System
- Compressors
- Cooling Tower
- Engines
- Gear Boxes
- Motors
- Pumps
- Fans
- Rails

### Outline Dimensions



### FEATURES

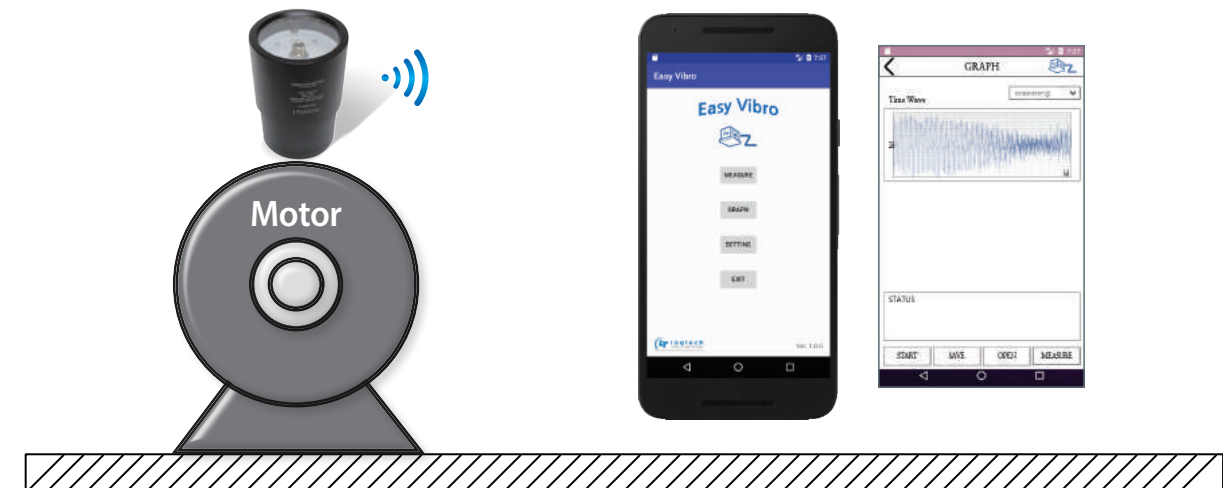
- Remote Measuring WiFi
- Small Size
- Hermetically Sealed
- Case Isolated
- ESD Protection
- Rugged Design
- Flexible wire

### Specifications

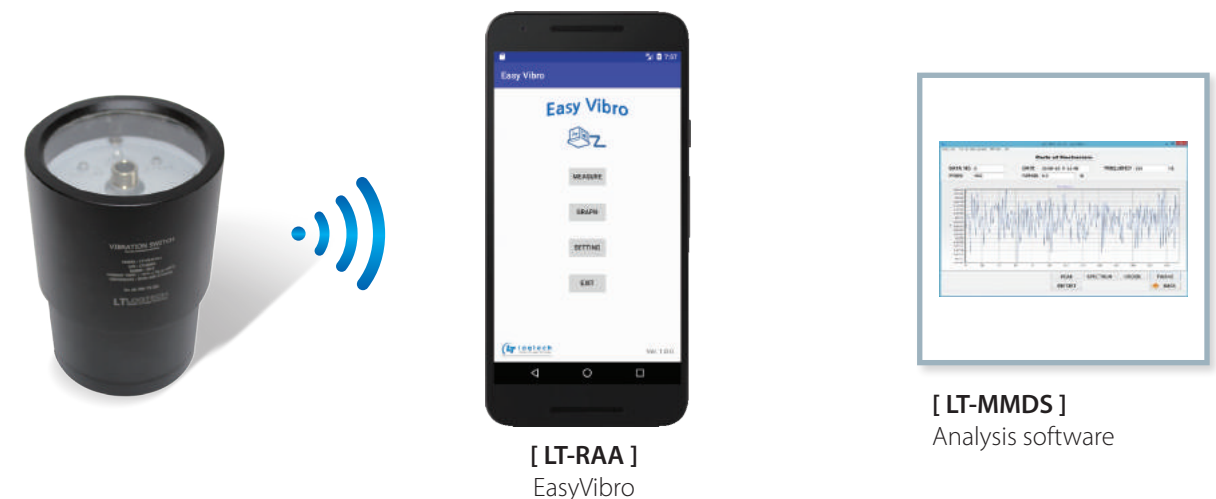
\* Conversion Factor 1g = 9.81 m/s<sup>2</sup>

Dynamics		
Frequency Response	0.1 ~ 2,500Hz	< ±3dB
Measurement Range	±50 g	< ±5%
Sensitivity	20mV/g	< ±5%
Resonant Frequency	22 kHz	
Resolution	0.024 g	
Transverse Sensitivity	≤ 5 %	
Electrical		
Excitation Voltage	3.3V	
Output Bias Voltage	1,650 mV	
Full scale Output Voltage	1,650mV ± 1,000mV	
Case Isolation	> 100 MΩ	
Mechanical		
Connector Type		
Case Material	aluminum	
Case Size	Φ71 x 95	
Weight	Approx. 600g	
Environmental		
Shock Limit	1,000 g peak	
Enclosure Rating		
Temperature Range	- 20 to + 85 °C	

### Wiring Diagrams



### System organization



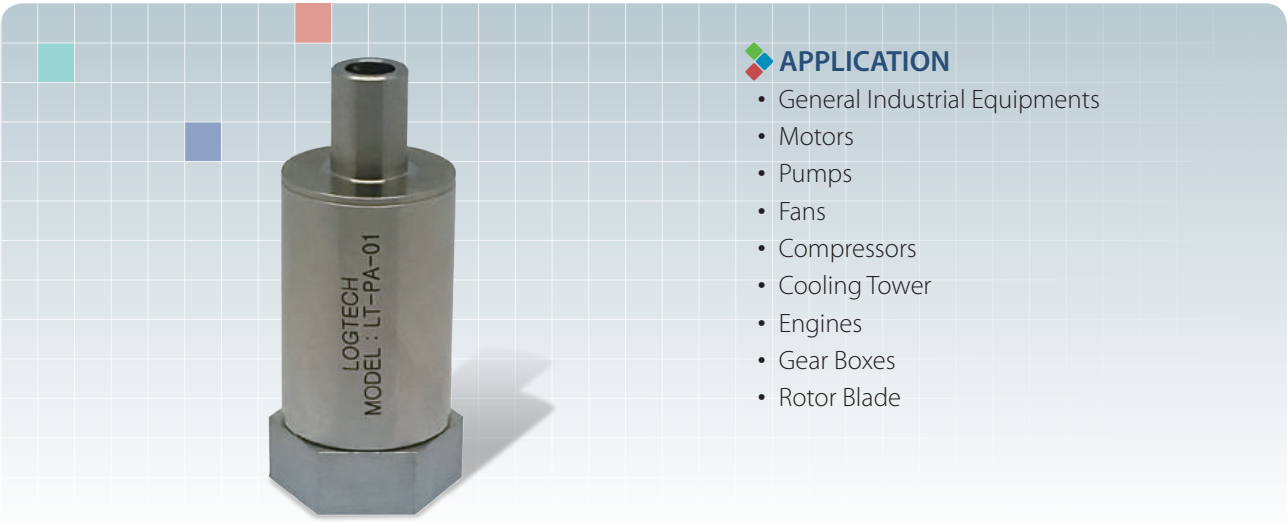
### Ordering Information

LT - RAA	—	□□	—	□□	—	□□
		<b>Sensing Axis</b>		<b>Frequency Range</b>		<b>Measurement Range</b>
		03 : 3-Axis		01 : 1,000 Hz		01 : ± 1g
				02 : 2,000 Hz		02 : ± 5g
				03 : 5,000 Hz		03 : ± 10g



[ LT-PA ] Series

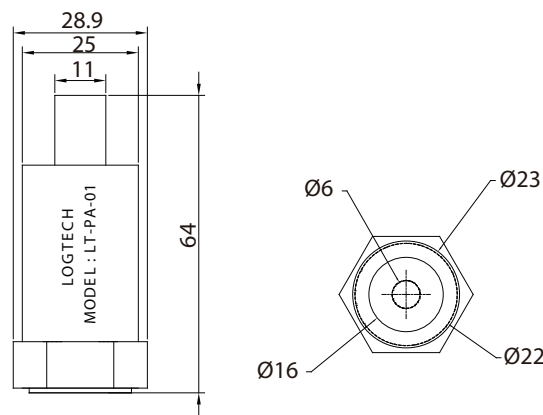
General purpose industrial acceleration sensor



APPLICATION

- General Industrial Equipments
- Motors
- Pumps
- Fans
- Compressors
- Cooling Tower
- Engines
- Gear Boxes
- Rotor Blade

Outline Dimensions



FEATURES

- Acceleration Response
- Wide Frequency Response
- Hermetically Sealed
- Case Isolated
- ESD Protection
- Rugged Design

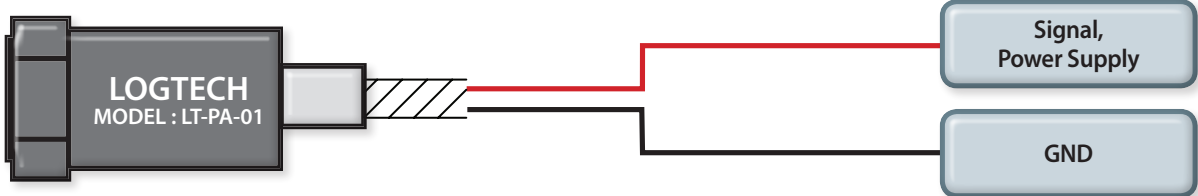
Specifications

\* Conversion Factor 1g = 9.81 m/s<sup>2</sup>

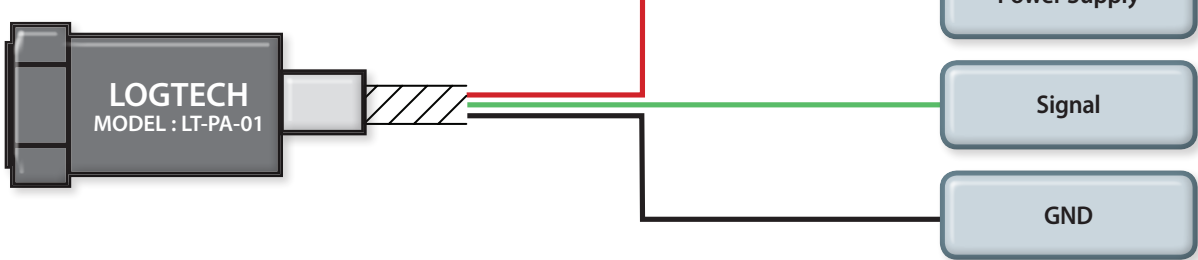
Dynamics		
Frequency Response	5 to 10,000 Hz	< ±3dB
Measurement Range	±50 g	< ±5%
Sensitivity	50 mV/g	< ±5%
Resonant Frequency	25 kHz	
Resolution	0.001 g	
Transverse Sensitivity	≤ 5 %	
Electrical		
Excitation Voltage	18 to 24VDC	
Output Bias Voltage	9,000 mV	
Full scale Output Voltage	9,000 mV ± 2,500 mV	
Case Isolation	> 100 MΩ	
Mechanical		
Connector Type		
Case Material	SUS 304	
Case Size	28Φ x 66mm	
Weight	Approx. 150g	
Environmental		
Shock Limit	1,000 g peak	
Enclosure Rating	IP67	
Temperature Range	- 20 to + 120 °C	

Wiring Diagrams

2 – wire type



3 – wire type



Related Other Products



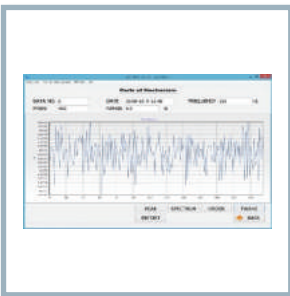
[LT-1000]  
ICP AMP



[LT-V4]  
Indicator /  
Signal controller



[ LT-SPU ]  
Signal conditioner



[ LT-MMDS ]  
Analysis software

Ordering Information

LT – PA –  –  –  –

Sensing Axis  
01 : 1-Axis

Frequency Range  
01 : 1,000 Hz  
02 : 5,000 Hz  
03 : 10,000 Hz

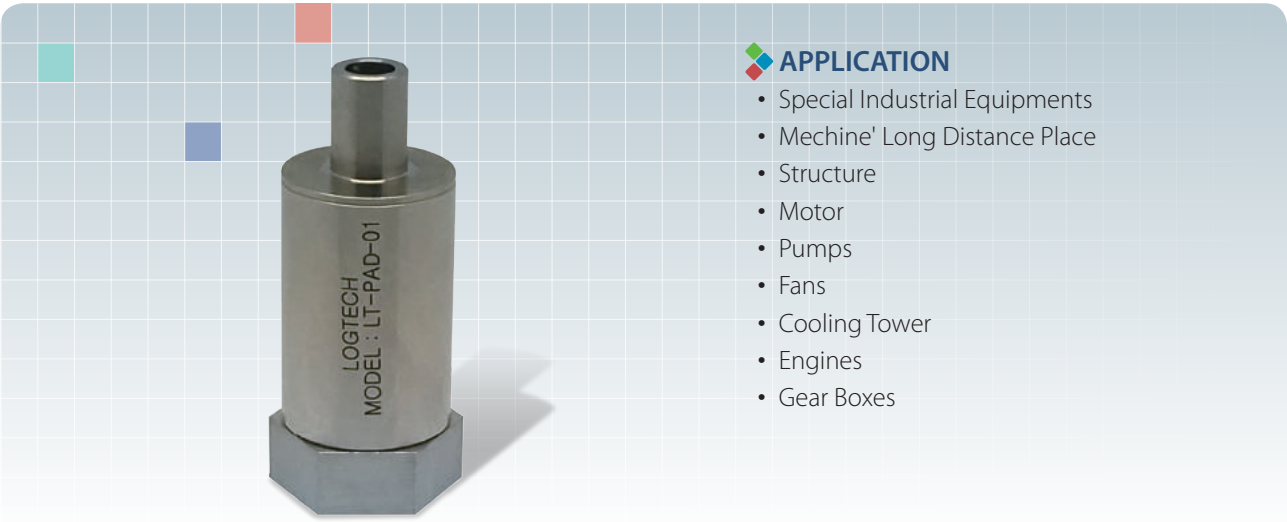
Measurement Range  
01 : ± 10g  
02 : ± 20g  
03 : ± 50g

Connection Cable  
01 : 2 wire  
02 : 3 wire



[ LT-PAD ] Series

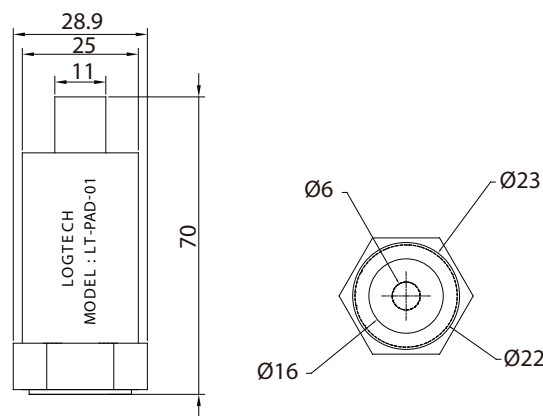
General purpose industrial acceleration sensor



**APPLICATION**

- Special Industrial Equipments
- Machine' Long Distance Place
- Structure
- Motor
- Pumps
- Fans
- Cooling Tower
- Engines
- Gear Boxes

**Outline Dimensions**



**FEATURES**

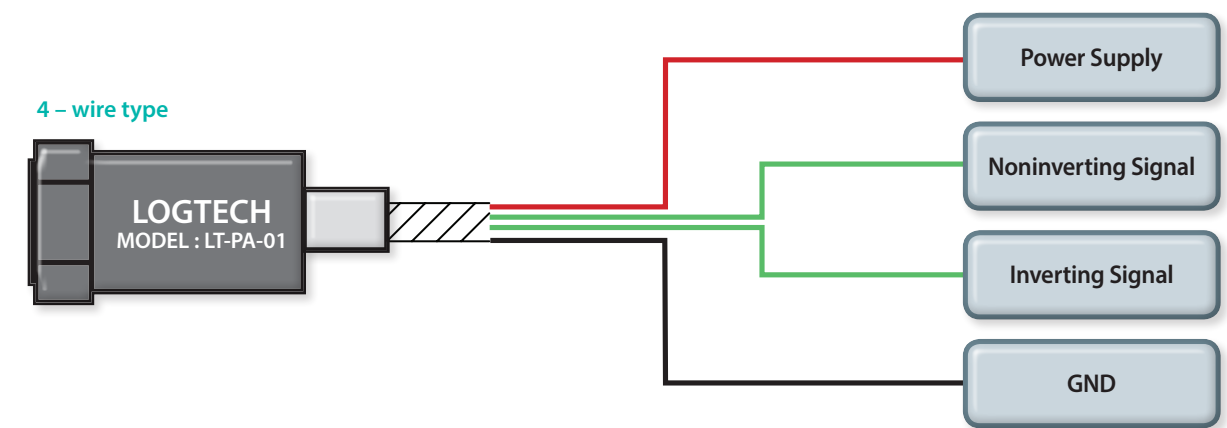
- Differential Output
- Acceleration Response
- Wide Frequency Response
- Hermetically Sealed
- Case Isolated
- ESD Protection
- Rugged Design

**Specifications**

\* Conversion Factor 1g = 9.81 m/s<sup>2</sup>

Dynamics		
Frequency Response	5 to 10,000 Hz	< ±3dB
Measurement Range	±50 g	< ±5%
Sensitivity	50 mV/g	< ±5%
Resonant Frequency	25 kHz	
Resolution	0.001 g	
Transverse Sensitivity	≤ 5 %	
Distance	500m	MAX(1.25 sq)
Electrical		
Excitation Voltage	18 to 24VDC	
Output Bias Voltage	9,000 mV	
Full scale Output Voltage	9,000 mV ± 2,500 mV	Differential Output
Case Isolation	> 100 MΩ	
Mechanical		
Connector Type		
Case Material	SUS 304	
Case Size	28Φ x 66mm	
Weight	Approx. 150g	
Environmental		
Shock Limit	1,000 g peak	
Enclosure Rating	IP67	
Temperature Range	- 20 to + 120 °C	

**Wiring Diagrams**



**Related Other Products**

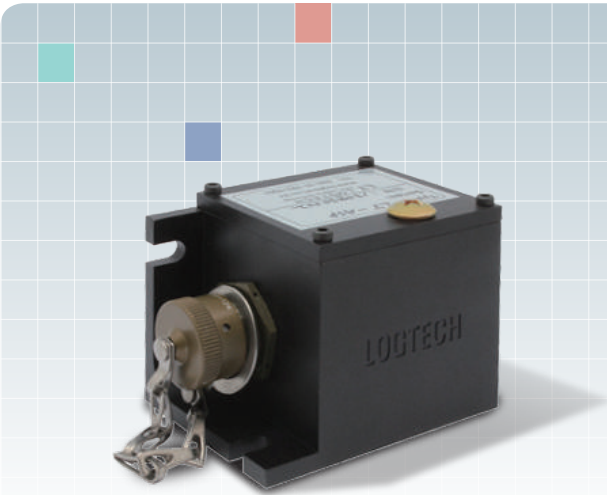


**Ordering Information**

LT – PAD	–	–	–	–	–
<b>Sensing Axis</b>		<b>Frequency Range</b>	<b>Measurement Range</b>		<b>Connection Cable</b>
01 : 1-Axis		01 : 1,000 Hz	01 : ± 10g		01 : 2 wire
		02 : 5,000 Hz	02 : ± 20g		02 : 3 wire
		03 : 10,000 Hz	03 : ± 50g		



[ LT-SA-01 ] Series  
Servo-type Acceleration Sensor



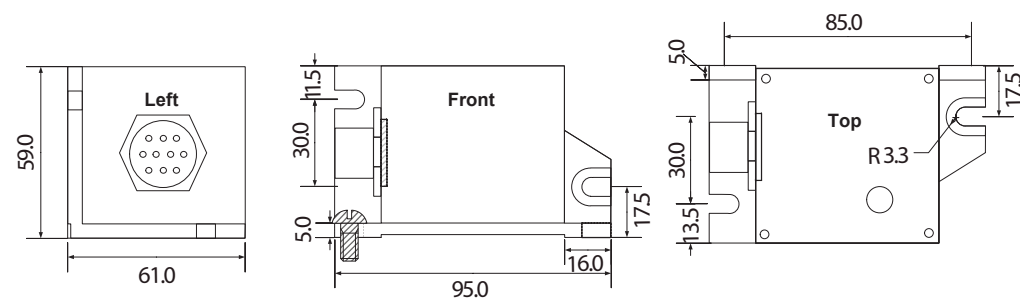
**APPLICATION**

- Building, Structure status monitoring
- construction site monitoring
- Bridge monitoring
- Tunnel monitoring

**FEATURES**

- Servo-type Acceleration Sensor
- Hermetically Sealed
- Case Isolated
- ESD Protection
- Rugged Design

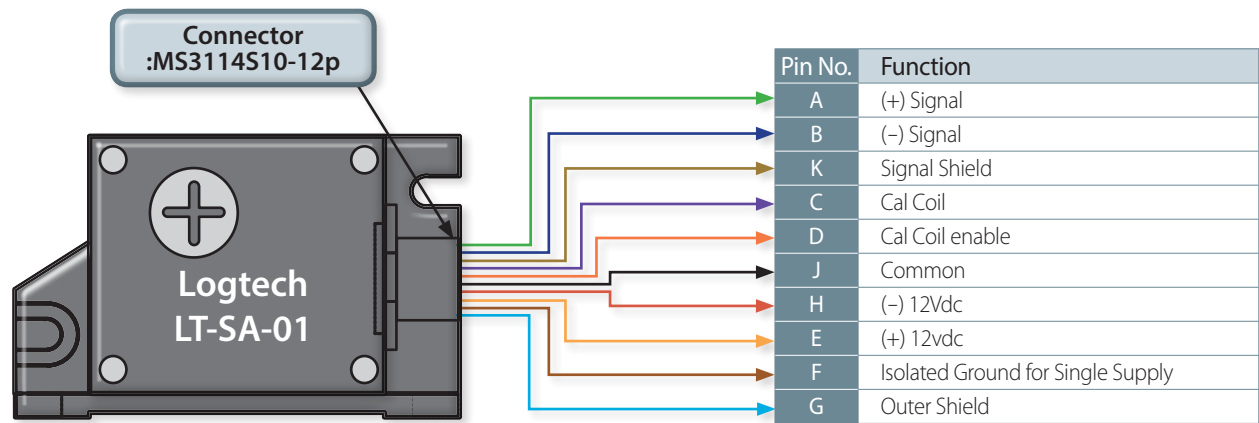
**Outline Dimensions**



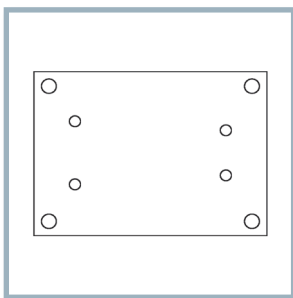
**Specifications**

Dynamics		
Frequency Response	0 to 100 Hz	< ±3dB
Measurement Range	±1	< ±5%
Sensitivity	2,500 mV/g	< ±5%
Dynamic Range	120 dB	
Damping	70% of critical	
Electrical		
Excitation Voltage	12VDC	
Output Voltage	± 2,500mV	Singe-ended or Differential
Initial time	2 Seconds Max	
Mechanical		
Connector Type	MS3114A 10-12S	
Case Material	AL	
Case Size	80 x 75 x 55 mm	
Weight	Approx. 500g	
Environmental		
Operating Temperature	20 ~ +80 °C	
Storage Temperature	-40 ~ +100 °C	

**Wiring Diagrams**



**Related Other Products**



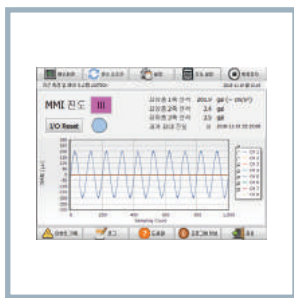
[ LT-SA01 ]  
Accessory /  
Mounting adaptor



[ LT-DL9000 ]  
Analysis software



[ LT-9000 ]  
Signal conditioner  
Analysis software



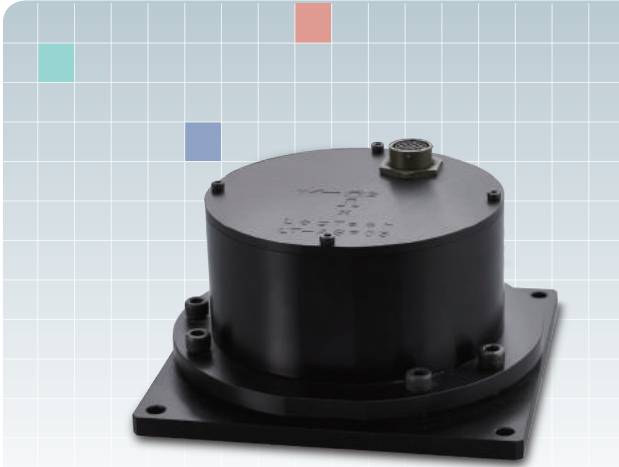
[ LT-DAQ ]  
Analysis software

**Ordering Information**

LT	-	SA	-		-		-	
Sensing Axis			Frequency Range			Measurement Range		
01 : 1-Axis			01 : 50 Hz 02 : 100 Hz 03 : 200 Hz			01 : ± 1g 02 : ± 2g		



[ LT-SA-03 ] Series  
Servo-type Acceleration Sensor



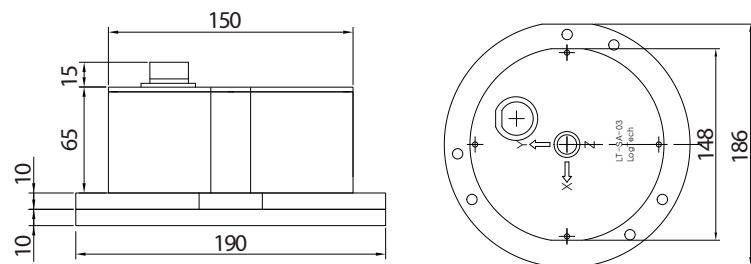
APPLICATION

- Building, Structure status monitoring
- Construction site monitoring
- Bridge monitoring
- Tunnel monitoring

FEATURES

- Servo-type Acceleration Sensor
- 3-Axis Acc Sensor
- Hermetically Sealed
- Case Isolated
- ESD Protection
- Rugged Design

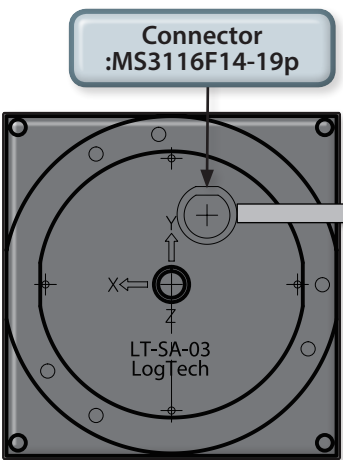
Outline Dimensions



Specifications

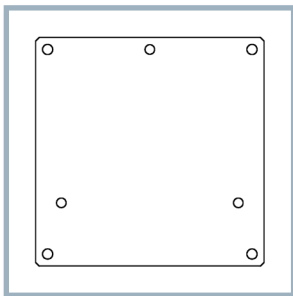
Dynamics		
Frequency Response	0 to 100 Hz	< ±3dB
Measurement Range	±1g	< ±5%
Sensitivity	2,500 mV/g	< ±5%
Axis	3-Axis Acc Sensor	
Dynamic Range	120 dB	
Damping	70% of critical	
Electrical		
Excitation Voltage	±12 VDC	
Output Voltage	± 2,500mV	Singe-ended or Differential
Initial time	2 Seconds Max	
Mechanical		
Connector Type	MS3116F 14-19P	
Case Material	AL	
Case Size	φ190 x 70mm	
Weight	Approx. 3,000g	
Environmental		
Operating Temperature	20 ~ +80 °C	
Storage Temperature	-40 ~ +100 °C	

Wiring Diagrams



Pin No.	Function
L	X+ Signal
M	X - Signal
N	X Signal
A	Y+ Signal
B	Y - Signal
P	Y Signal
C	Z+ Signal
D	Z - Signal
R	Z Signal
E	Cal coil
F	Cal coil enable
J	(-) 12Vdc
H	(+) 12vdc
K	Power common
U	PGP ground (Case Ground)
G	Ground
S	Ground
T	Ground
V	Ground

Related Other Products



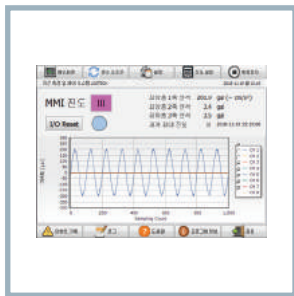
[ LT-SA03 ]  
Accessory /  
Mounting adaptor



[ LT-DL9000 ]  
Analysis software



[ LT-9000 ]  
Signal conditioner  
Analysis software



[ LT-DAQ ]  
Analysis software

Ordering Information

LT - SA -    -    -   

Sensing Axis

02 : 2-Axis  
03 : 3-Axis

Frequency Range

01 : 50 Hz  
02 : 100 Hz  
03 : 200 Hz

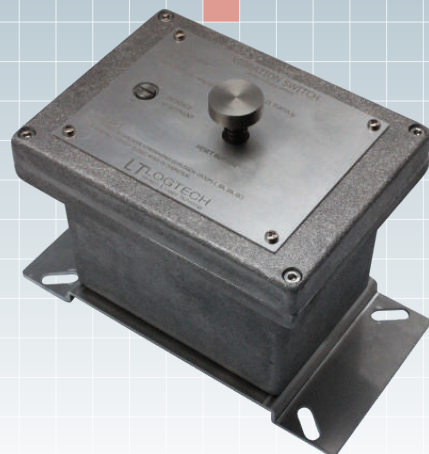
Measurement Range

01 : ± 1g  
02 : ± 2g



[ LT-V5-M ]

Mechanical Vibration Switches



APPLICATION

- The LT-V5-M Series can be used anywhere shutdown protection from damaging shock and vibration is desired.
- Ideal for use on engines, pumps, compressors, heat exchangers.
- Switches are field adjustable to sensitivity required in each application.

FEATURES

- Ex db IIB T5 Gb (KCs / IECEx / ATEX)
- Economical protection for critical machinery
- Linear trip adjustment (1/n turn per g )
- Better sensitivity repeatability on reset
- Manual Reset
- Universal mounting plates and studs
- Wide temperature range of -40C° to 90C°
- SPDT and gold contact available
- Hazardous area approvals available

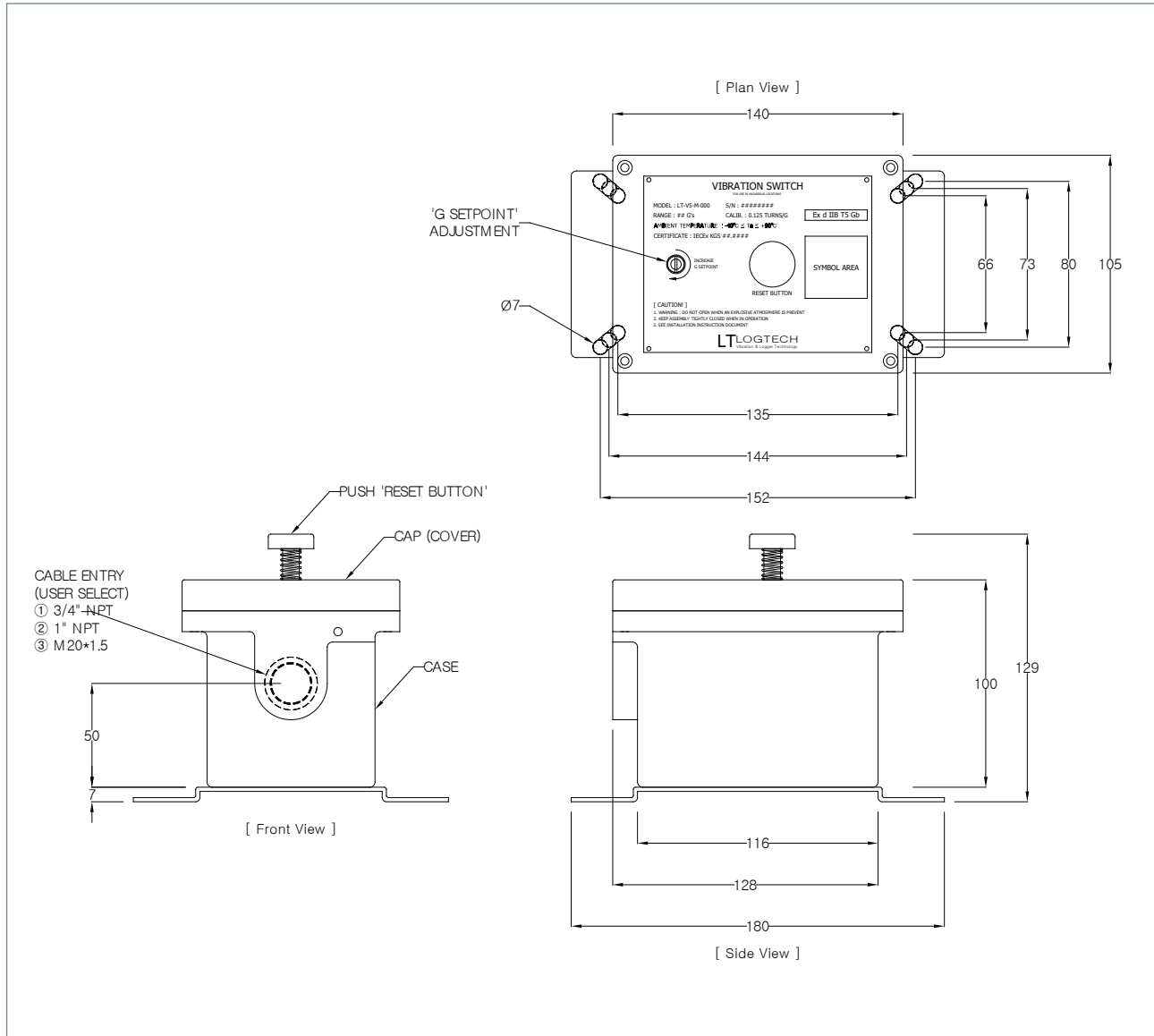


- ✓ Motors, Pumps & Industrial Fans
- ✓ Cooling towers
- ✓ Heat Exchangers
- ✓ Reciprocating Compressors
- ✓ HVAC Systems
- ✓ Large exhaust and vent fans, etc.

Specifications

Measurement Range	0 to 10G (peak)
Frequency Range	0 to 60 Hz (0 to 3,600 rpm)
Setpoint Adjust	External setpoint adjustment <b>Linear Trip Adjust</b> : 0 to 100% of measurement range
Local Reset (standard)	Manual pushbutton on the vibration switch
Remote Reset / Start-up Time Delay (option)	Include built-in electric solenoid which allows reset of tripped unit from remote location Overrides trip operation on start up The delay time is field-adjustable from 5 seconds up to 60 seconds with a potentiometer
Cable Input	3/4" NPT or M20 x 1.5
Contact Type	SPDT
Contact Rating	<b>Silver-plated</b> 15A @ 125-480 Vac 1/4 hp @ 125 Vac / 1/8 hp @ 250 Vac 0.5A @ 125 Vdc / 0.25 @ 250 Vdc <b>Gold-plated</b> 1A @ 125 Vac
Mounting	4-hole rectangular in various dimensional options
Weight	Approximately 1.5 kg
Environmental Temperature Range	-40 to +90 °C
Environmental Rating (Enclosure material)	IP65 (Copper-free cast aluminum) IP65 (Copper-free cast aluminum with clear epoxy coating)
Hazardous Area Approvals	KCs / ATEX / IECEx Ex d IIB T5

Outline Dimensions



Ordering Information

LT - V5 - M - A - B - C

A: Hazardous Area Rating

00	None, silver contacts
01	ATEX/IECEx Flameproof Ex d IIB T5 Silver contacts
02	None, Gold contacts
03	ATEX/IECEx Flameproof Ex d IIB T5 Gold contacts

B: G-range(Full Scale Vibration Range)

01	5G
02	10G

C: Wiring Entry

00	3/4" NPT
01	M20x1.5



[ LT-V5-E ]

Electrical Vibration Switches



APPLICATION

- The LT-V5-E Series can be used anywhere shutdown protection from damaging shock and vibration is desired.
- Ideal for use on engines, pumps, compressors, heat exchangers.
- Switches are field adjustable to sensitivity required in each application.

FEATURES

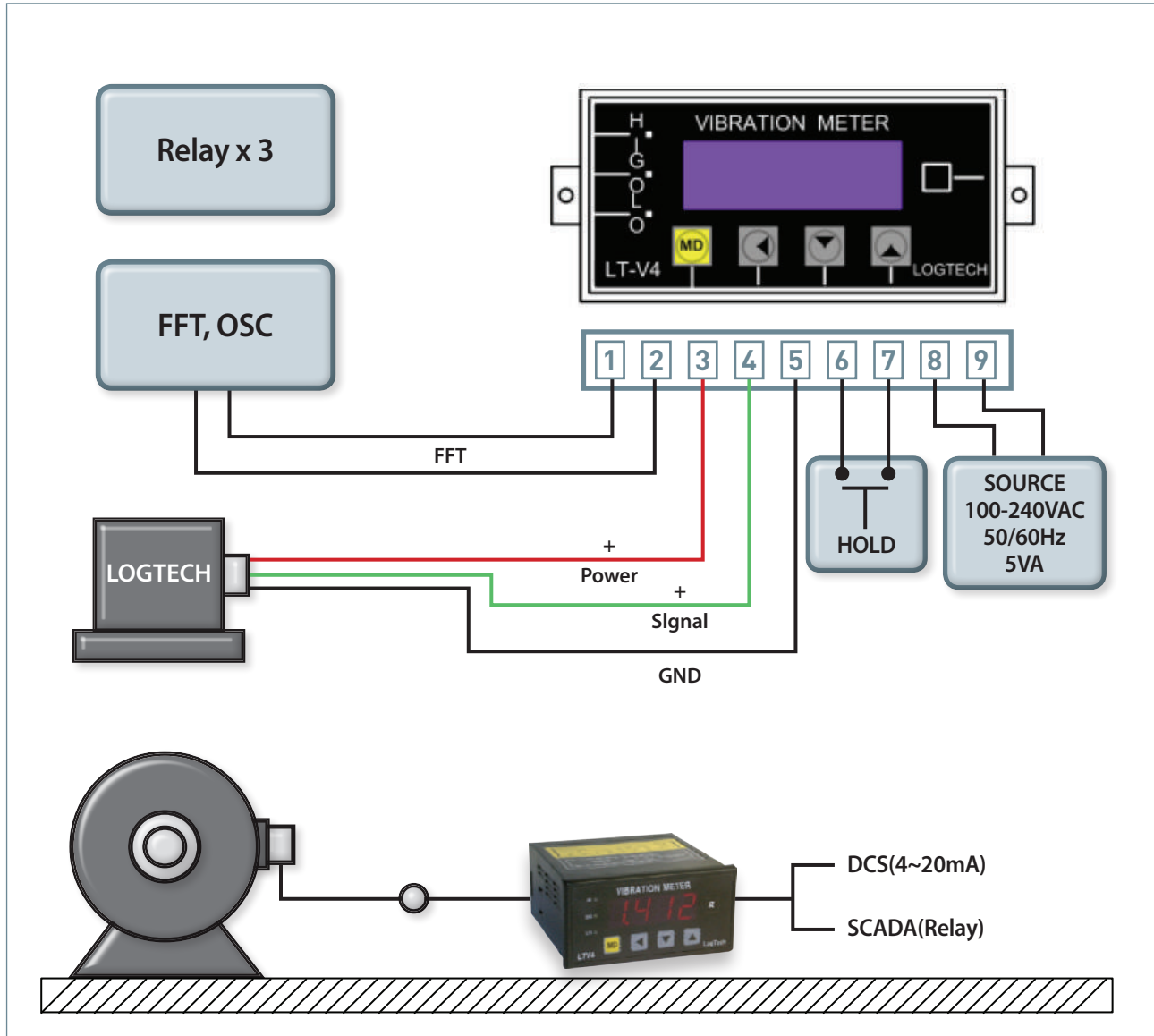
- Combined a vibration sensor, signal transducer and 4-20mA transmitter
- Provide a cost-effective means of condition vibration monitoring system
- 4~20mA current output signal is proportional to RMS velocity vibration
- Compact size
- Reverse wiring protection
- Selectable full scale range
- Selectable low and high pass filter

- ✓ Motors, Pumps & Industrial Fans
- ✓ Cooling towers
- ✓ Heat Exchangers
- ✓ Reciprocating Compressors
- ✓ HVAC Systems
- ✓ Large exhaust and vent fans, etc.

Specifications

Dynamics		
Frequency Response	1 to 1,000 Hz	< ±3dB
Maximum Full Scale	20 mm/s	< ±5%
Resonant Frequency	10 kHz	
Transverse Sensitivity	≤ 5 %	
Electrical		
Loop PowerVoltage	24VDC	
Output Type	4~20mA Current (proportional to true RMS velocity full scale range)	
Case Isolation	> 100 MΩ	
Mechanical		
Standard Cable Length	3 meters	* user optional
Case Material	Stainless Steel	
Case Size	35 Φ x 30 mm	
Weight	Approx. 40g	
Environmental		
Shock Limit	1,000 g peak	
Enclosure Rating	IP67	
Temperature Range	- 20 to + 85 °C	

Outline Dimensions



Ordering Information

LT - V5 - E - A - B - C

A: Hazardous Area Rating

00	None, silver contacts
01	ATEX/IECEX Flameproof Ex d IIB T5 Silver contacts
02	None, Gold contacts
03	ATEX/IECEX Flameproof Ex d IIB T5 Gold contacts

B: G-range(Full Scale Vibration Range)

01	5G
02	10G

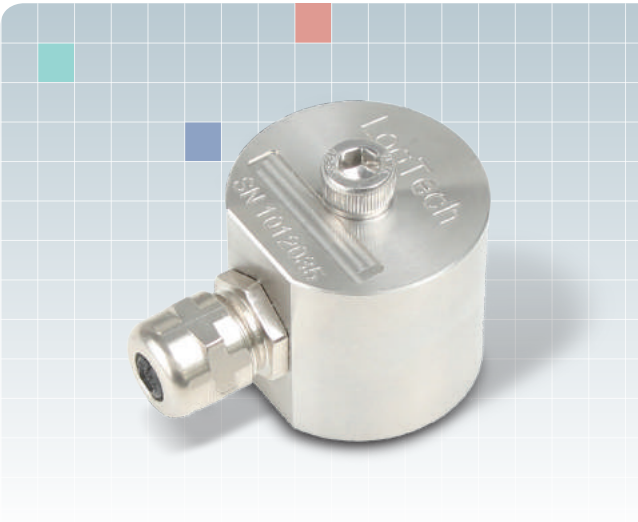
C: Wiring Entry

00	3/4" NPT
01	M20x1.5



[ LT-AV ] Series

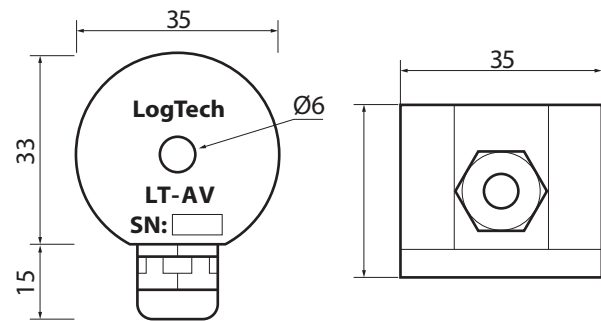
Compact size industrial velocity sensor



APPLICATION

- 4~20mA output LT-AV series is compatible with most PLC, DCS, SCADA and Plant Information (PI) systems.
- It is designed to monitor overall vibration levels of auxiliary rotating machinery such as
- Motors & Generators
- Fans, Pumps & Compressors
- Small hydro turbines
- Cooling towers
- Piping Vibration, etc.

Outline Dimensions



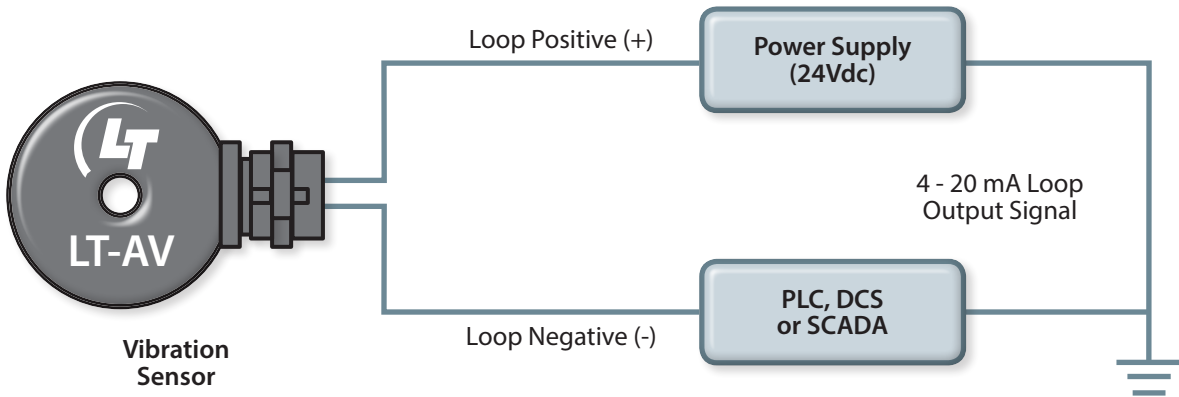
FEATURES

- Combined a vibration sensor, signal transducer and 4-20mA transmitter
- Provide a cost-effective means of condition vibration monitoring system
- 4~20mA current output signal is proportional to RMS velocity vibration
- Compact size
- Reverse wiring protection
- Selectable full scale range
- Selectable low and high pass filter

Specifications

Dynamics		
Frequency Response	1 to 1,000 Hz	< ±3dB
Maximum Full Scale	20 mm/s	< ±5%
Resonant Frequency	10 kHz	
Transverse Sensitivity	≤ 5 %	
Electrical		
Loop PowerVoltage	24VDC	
Output Type	4~20mA Current (proportional to true RMS velocity full scale range)	
Case Isolation	> 100 MΩ	
Mechanical		
Standard Cable Length	3 meters	* user optional
Case Material	Stainless Steel	
Case Size	35 Φ x 30 mm	
Weight	Approx. 40g	
Environmental		
Shock Limit	1,000 g peak	
Enclosure Rating	IP67	
Temperature Range	- 20 to + 85 °C	

Wiring Diagrams



Polarity Independent Wiring  
allows loop power to be connected  
without regard to voltage polarity

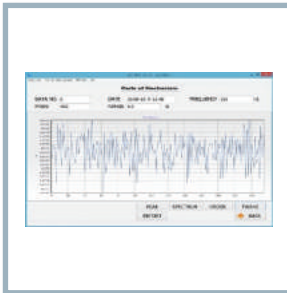
Related Other Products



[ LT-V4 ]  
Indicator /  
Signal controller



[ LT-SPU ]  
Signal conditioner



[ LT-MMDS ]  
Analysis software

Ordering Information

LT - AV - [ ] - [ ] - [ ] - [ ]

Frequency Range

- 01 : 1~ 1,000 Hz
- 02 : configure to order

Maximum Full Scale

- 01 : 20 mm/s
- 02 : 40 mm/s
- 03 : 1 in/s
- 04 : 2 in/s

Cable Length

- 01 : 3 M (standard)
- 02 : 10 M (option)
- 03 : configure to order

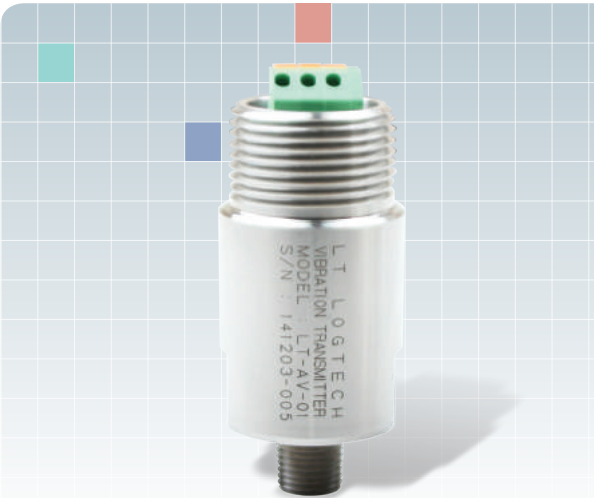
Approval Option

- 00 : Not required
- 01 : CSA
- 02 : ATEX / IECEx



[ LT-VI ] Series

Loop powered 4-20mA velocity sensor

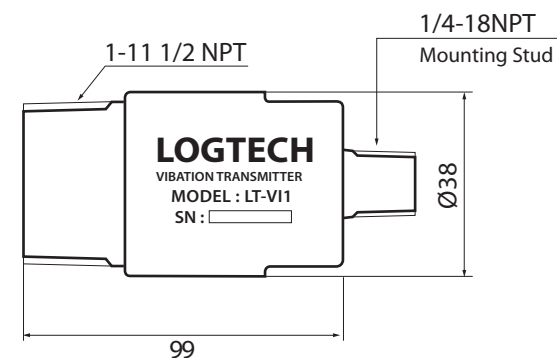


APPLICATION

4~20mA output LT-AV series is compatible with most PLC, DCS, SCADA and Plant Information (PI) systems. It is designed to monitor overall vibration levels of auxiliary rotating machinery such as Motors & Generators

- Fans, Pumps & Compressors
- Small hydro turbines
- Cooling towers
- Piping Vibration, etc.

Outline Dimensions



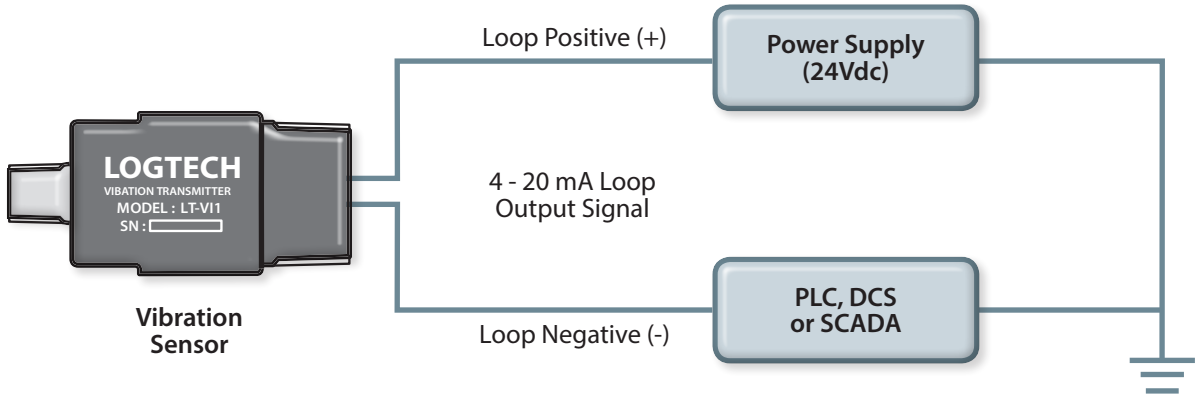
FEATURES

- Combined a vibration sensor, signal transducer and 4-20mA transmitter
- Provide a cost-effective means of condition vibration monitoring system
- 4~20mA current output signal is proportional to RMS velocity vibration
- Reverse wiring protection
- Selectable full scale range
- Selectable low and high pass filter

Specifications

Dynamics		
Frequency Response	2 to 1,000 Hz	< ±3dB
Maximum Full Scale	20 mm/s	< ±5%
Selectable High Pass Filter	2 Hz	< ±5%
Selectable Low Pass Filter	250 Hz	
Resonant Frequency	10 kHz	
Transverse Sensitivity	≤ 5 %	
Electrical		
Loop Power Voltage	15 to 30VDC	* nominal 24VDC
Output Type	4~20mA Current (proportional to true RMS velocity full scale range)	
Case Isolation	> 100 MΩ	
Mechanical		
Connector Type	Terminal block	
Case Material	Stainless Steel	
Case Size	38 Ø x 66 mm	
Weight	Approx. 60g	
Environmental		
Shock Limit	1,000 g peak	
Enclosure Rating	IP67	
Temperature Range	-20 to +85 °C	

Wiring Diagrams



**Polarity Independent Wiring**  
allows loop power to be connected without regard to voltage polarity

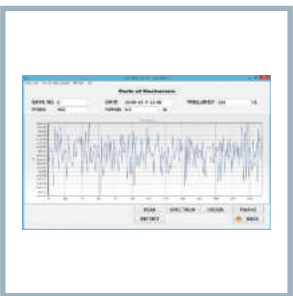
Related Other Products



[LT-V4]  
Indicator /  
Signal controller



[ LT-SPU ]  
Signal conditioner



[ LT-MMDS ]  
Analysis software

Ordering Information

LT - VI -  -  -  -

Full Scale Range

- 01 : 20 mm/s
- 02 : 40 mm/s
- 03 : 60 mm/s
- 04 : 80 mm/s
- 03 : 100 mm/s

High Pass Filter

- 01 : 2 Hz
- 02 : 5 Hz
- 03 : 10 Hz
- 04 : 20 Hz
- 05 : 50 Hz
- 06 : 100 Hz

Low Pass Filter

- 01 : 250 Hz
- 02 : 500 Hz
- 03 : 1,000 Hz

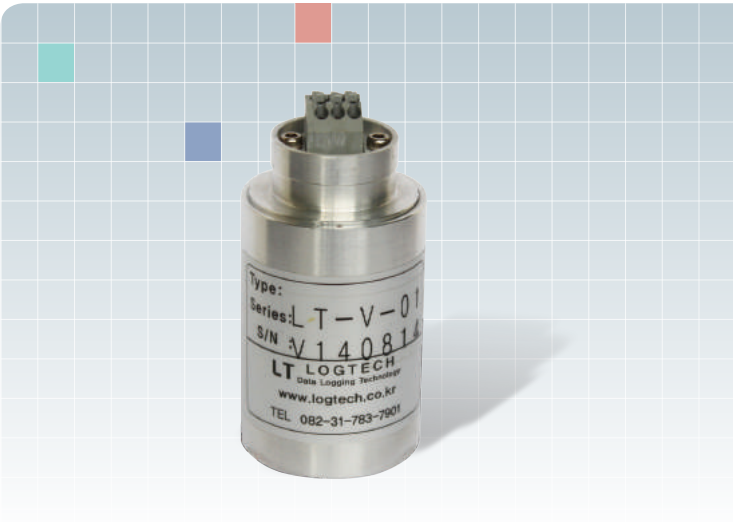
Approval Option

- 00 : Not required
- 01 : CSA
- 02 : ATEX / IECEx



[ LT-VV ] Series

Loop powered 4-20mA velocity sensor

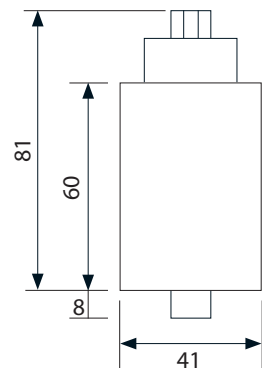


APPLICATION

Velocity transducers is a two-wire design that uses moving-coil technology and provides a voltage output directly proportional to the transducer's vibration velocity

- Fans, Pumps & Compressors
- Small hydro turbines
- Cooling towers
- Piping Vibration, etc.

Outline Dimensions



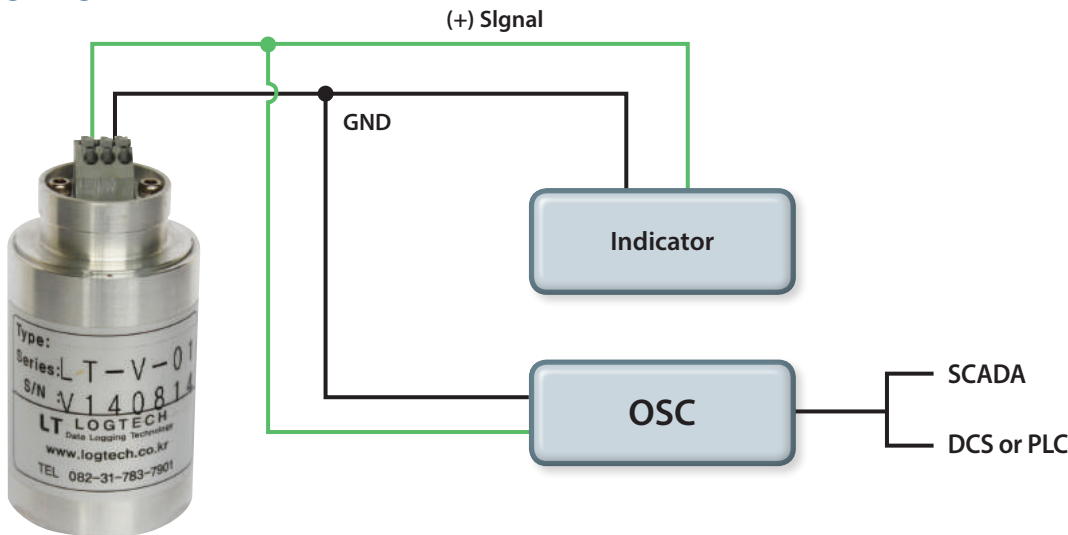
FEATURES

- 1 axis measurement
- 10~1000 Hz frequency response
- Moving Coil type velocity sensor
- 2-wire voltage output
- Unnecessary extra transducer

Specifications

Dynamics		
Frequency Response	10 ~ 1,000 Hz	< ±3dB
Maximum Full Scale	50 mm/s	< ±5%
Selectable High Pass Filter	1 Hz	< ±5%
Selectable Low Pass Filter	500 Hz	
Resonant Frequency	10 kHz	
Transverse Sensitivity	≤ 5 %	
Electrical		
Output Type	20mv / mm/s	
Case Isolation	> 100 MΩ	
Mechanical		
Connector Type	Terminal block	
Case Material	Anodized Aluminum A204	
Case Size	Φ41 x 60 mm	
Weight	Approx. 250g	
Environmental		
Shock Limit	1,000 g peak	
Enclosure Rating	IP67	
Temperature Range	- 20 to + 85 °C	

Wiring Diagrams



Related Other Products



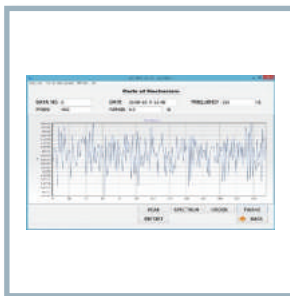
[LT-VV]  
Accessory /  
Mounting adaptor



[LT-V4]  
Indicator /  
Signal controller



[ LT-SPU ]  
Signal conditioner



[ LT-MMDS ]  
Analysis software

Ordering Information

LT - VV -  -  -  -

Full Scale Range

- 01 : 25 mm/s, peak
- 02 : 50 mm/s, peak
- 03 : 25 mm/s, RMS
- 04 : 50 mm/s, RMS
- S : Full scale Range Option

High Pass Filter

- 01 : 1 Hz
- 02 : 10 Hz
- 03 : 50 Hz

Low Pass Filter

- 01 : 500 Hz
- 02 : 1,000 Hz
- 03 : 2,000 Hz


MOUNT

- 01 : integral 1/4" NPT
- 02 : integral 1/2" NPT
- 03 : 3/8-24 UNF X 1/2"
- 04 : M8 x 1 - 12
- 05 : M10 x 1.25 - 12
- 06 : 1/4 - 28 UNF



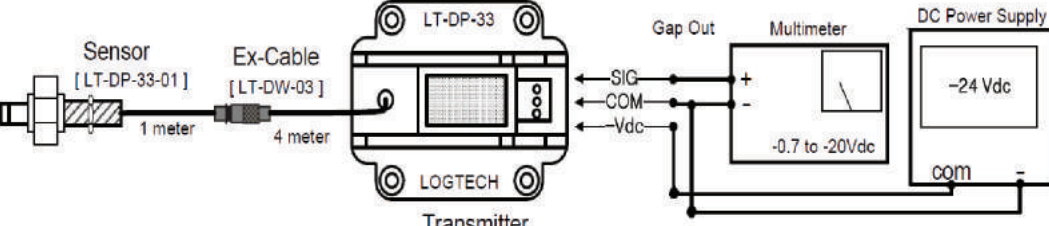
[ LT-DP33 ]

Eddy Current Proximity System

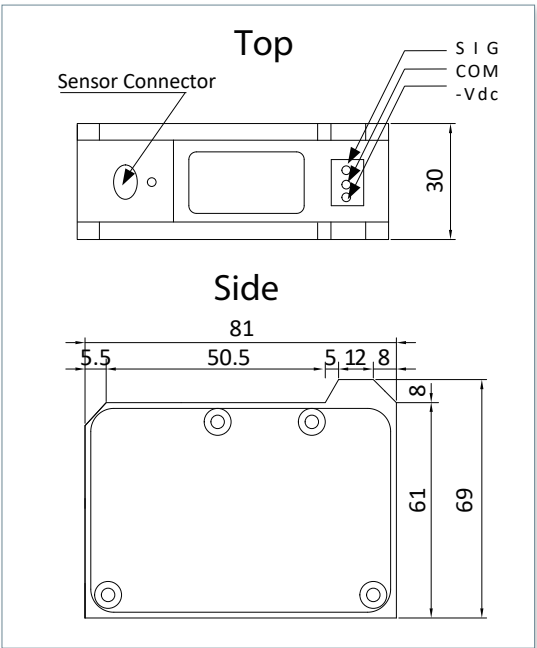


- Fully API 670 compliant
- Protect fluid bearing machines, such as turbines and compressors.
- Quality sensor with excellent environmental resistance
- Small sized and durable non-contact displacement transducer using a driver powered by -24VDC which is easy to apply in the instrumentation site

System Configuration



Outline Drawing / DP Transmitter



Specifications

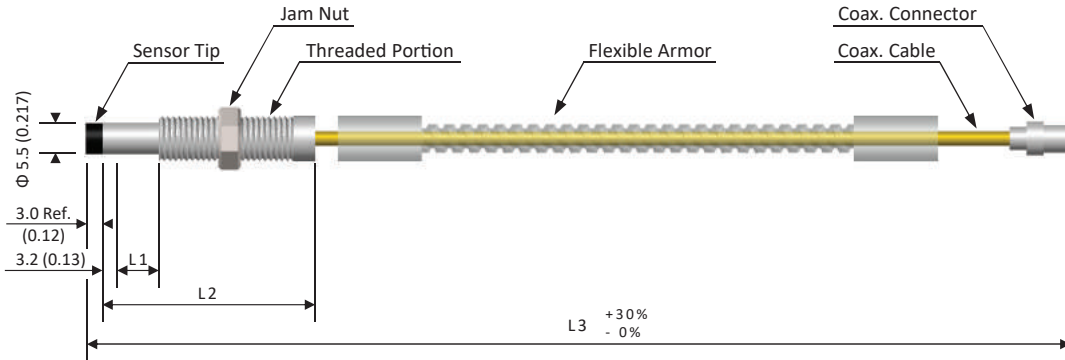
DP-33	
Voltage Output	-0.7 to -20Vdc Output Range 0.3~2.3mm(±1.0mm) ± 1.5 % of full scale range
Gap Output	Linear Range: 1.4 mm ( Gap : 0.3 to 2.3 mm ) Scale Factor: 7.87 mV/μm ( 200 mV/mil ) Scale Calibration Material Factor Error: 5m, 7m system : 7.87 mV/μm ± 6.5 % 5m, 9m system : 7.87 mV/μm ± 10 % Step : 200 μm, Target : 30 mm diameter Output Impedance: 10 kΩ ( It is calibrated load impedance at 10 MΩ )
System	Frequency Response: 0Hz to 10,000Hz (+0dB, -3dB) at 900 μm Gap Operating Temperature Range: & Transmitter : 0 to 70 °C Sensor & Extension Cable : - 34 to + 177 °C Relative Humidity: 95 % RH ( non-condensing ) Power Supply Voltage: - 24VDC ±10% System Cable Length: 5 m, 7 m or 9 m

Model Code / DIN Mounting Clip ( Option )

DP-33T - - / NB1 / DNC / CEM

System Cable Length	Output Range	Non-Incendive	With Din Mounting Clips	CE Mark
1 5 m	1 2mm	1 CSA : Class I, Div 2, Groups A,B,C,D ATEX : Ex nA II T6		
2 7 m				
3 9 m				

Outline Drawing and Model Code / DL Sensor

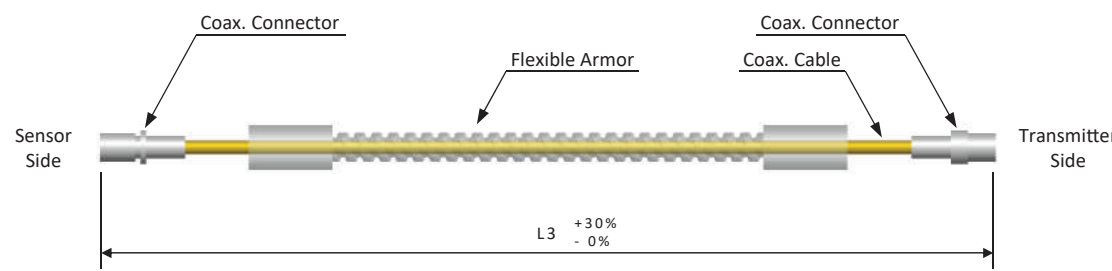


DL-33K05 - - - - - /NB

Armor	Threaded Size	Unthreaded Length*(L1)	Case Length*(L2)	Cable Length (L3)	Non-Incendive
A With (Without Teflon coating)	M1 M8 x 1	10 mm step, 0 to 230 mm e.g) 06 = 60 mm L1 ≤ L2 - 20 mm	10 mm step, 20 to 250 mm e.g) 25 = 250 mm	1 0.5 m	1 CSA : Class I, Div 2, Groups A,B,C,D ATEX : Ex nA II T6
T With (With Teflon coating)	M2 M10 x 1			2 1.0 m	
L Without	U1 1/4-28 UNF-2A	0.1 inch step, 0 to 9.2 inch e.g) 01 = 0.4 mm L1 ≤ L2 - 0.7 inch	0.1 inch step, 0.8 to 9.9 inch e.g) 35 = 3.5 inch	3 5.0 m	8 KTL : Ex nA II T4
	U2 3/8-24 UNF-2A			4 7.0 m	
				5 9.0 m	

\* inch for UNF-2A thread mm for M thread

DW Extension Cable



DW-33K - - /NB

Armor	Extension Cable Length	Non-Incendive
A With (Without Teflon Coating)	1 4.0 m	1 CSA : Class I, Div 2, Groups A,B,C,D ATEX : Ex nA II T6
T With (With Teflon Coating)	2 4.5 m	
L Without	3 6.0 m	8 KTL : Ex nA II T4
	4 6.5 m	



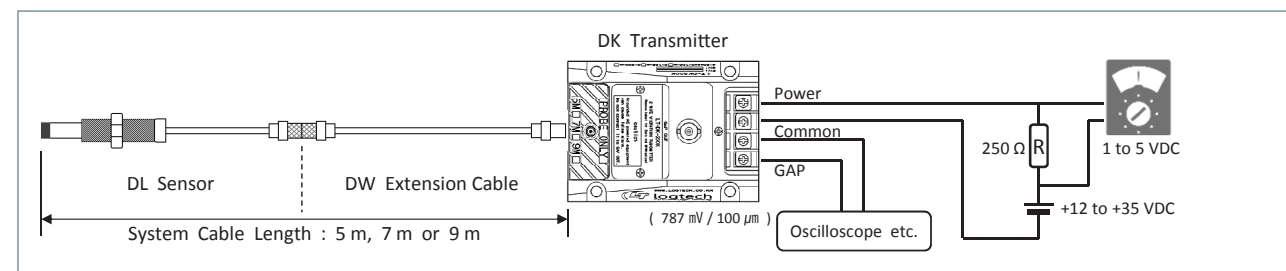
## [ LT-DK200 ]

### Eddy Current Proximity System

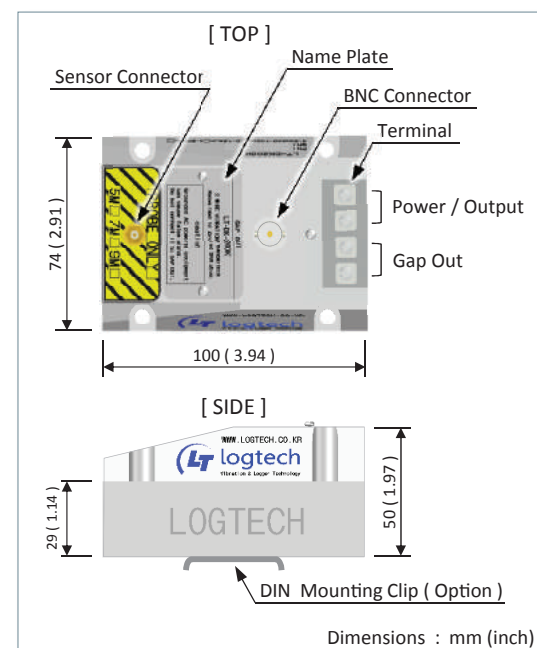


- Fully API 670 compliant
- Protect fluid bearing machines, such as turbines and compressors.
- Shaft vibration, thrust position measurements will be directly connected to PLC, DCS and SCADA systems.
- 4-20mA output signal is proportional to peak-peak vibration amplitude (DK-200K) or average probe gap (DK-200T).
- Multiple mounting options. ( DIN rail, panel or none )

### System Configuration



### Outline Drawing / DK Transmitter



### Specifications

	DK-200K	DK-200T
Current Output	0 to 100 $\mu$ m pk-pk 0 to 120 $\mu$ m pk-pk 0 to 200 $\mu$ m pk-pk 0 to 250 $\mu$ m pk-pk 0 to 400 $\mu$ m pk-pk	-0.6 to 0 to +0.6 mm -0.635 to 0 to +0.635 mm ( - 25 to + 25 mils )
4 to 20mA Output Conversion Accuracy	$\pm 1.5$ % of full scale range	$\pm 1.0$ % of full scale range
Calibration Material	AISI 4140 Steel flat Surface ( JIS SCM440 equivalent )	
Linear Range	1.4 mm ( Gap : 0.3 to 1.7 mm )	
Scale Factor	7.87 mV/m ( 200 mV/mil )	
Scale Factor Error	5m, 7m system : 7.87 mV/ $\mu$ m $\pm 6.5$ % 5m, 9m system : 7.87 mV/ $\mu$ m $\pm 10$ % Step : 200 $\mu$ m, Target : 30 mm diameter	
Output Impedance	10 k $\Omega$ ( It is calibrated load impedance at 10 M $\Omega$ )	
Frequency Response	5Hz to 6,000Hz (+0dB, -3dB) at 900 $\mu$ m Gap	
Operating Temperature Range	& Transmitter : 0 to 70 $^{\circ}$ C Sensor & Extension Cable : - 34 to + 177 $^{\circ}$ C	
Relative Humidity	95 % RH ( non-condensing )	
Power Supply Voltage	12 to 35 VDC	
System Cable Length	5 m, 7 m or 9 m	5 m, 7 m

### Mode Code / For Shaft Vibration

## DK-200K - / NB1 / DNC / CEM

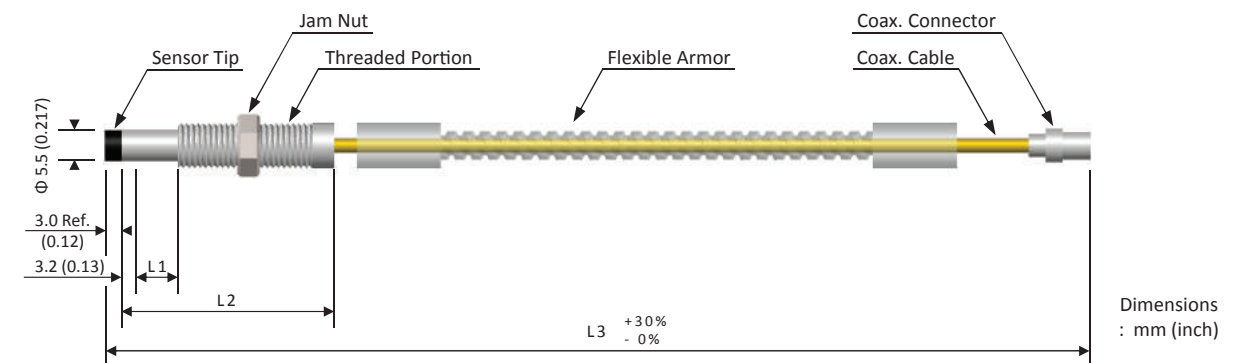
System Cable Length	Output Range	Non-Incendive	With Din Mounting Clips	CE Mark
1 5 m	1 0 to 100 $\mu$ m pk-pk	1 CSA : Class I, Div 2, Groups A,B,C,D ATEX : Ex nA II T6		
2 7 m	2 0 to 120 $\mu$ m pk-pk			
	3 0 to 200 $\mu$ m pk-pk			
	4 0 to 250 $\mu$ m pk-pk			
	5 0 to 400 $\mu$ m pk-pk	8 KTL : Ex nA II T4		

### For Thrust Position

## DK-200T - / NB1 / DNC / CEM

System Cable Length	Output Range	Non-Incendive	With Din Mounting Clips	CE Mark
1 5 m	1 -0.6 to 0 to +0.6 mm	1 CSA : Class I, Div 2, Groups A,B,C,D ATEX : Ex nA II T6		
2 7 m	2 -0.635 to 0 to +0.635mm ( -25 to 0 to +25 mils )			

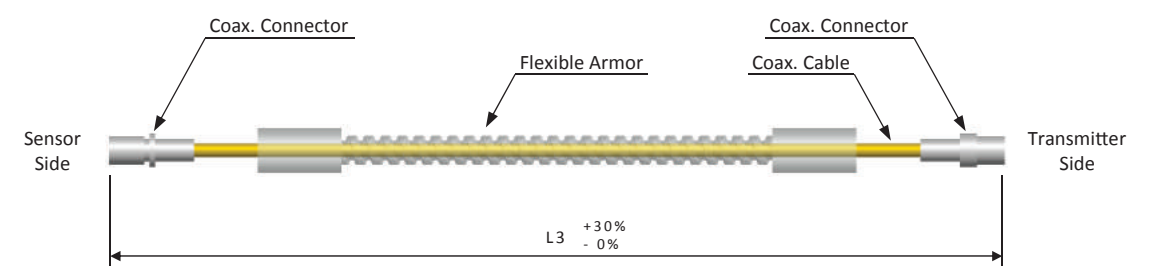
### Outline Drawing and Model Code / DL Sensor



## DK-200K05 - / NB

Armor	Threaded Size	Unthreaded Length*(L1)	Case Length*(L2)	Cable Length (L3)	Non-Incendive
A With (Without Teflon coating)	M1 M8 x 1	10 mm step, 0 to 230 mm e.g.) 06 = 60 mm L1 $\leq$ L2 - 20 mm	10 mm step, 20 to 250 mm e.g.) 25 = 250 mm	1 0.5 m	1 CSA : Class I, Div 2, Groups A,B,C,D ATEX : Ex nA II T6
T With (With Teflon coating)	M2 M10 x 1			2 0.5 m	
L Without	U1 1/4-28 UNF-2A	0.1 inch step, 0 to 9.2 inch e.g.) 01 = 0.4 mm L1 $\leq$ L2 - 0.7 inch	0.1 inch step, 0.8 to 9.9 inch e.g.) 35 = 3.5 inch	3 0.5 m	8 KTL : Ex nA II T4
	U2 3/8-24 UNF-2A			4 0.5 m	
				5 0.5 m	

### DW Extension Cable

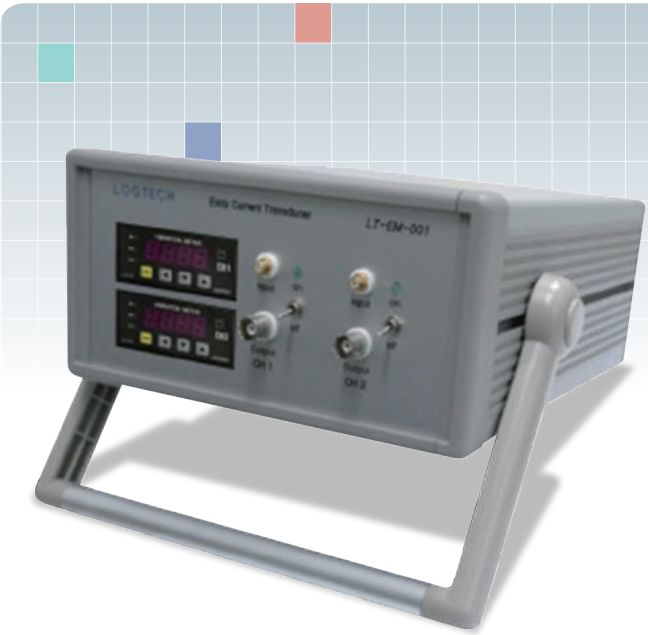


## DK-200K - / NB

Armor	Extension Cable Length	Non-Incendive
M1 With (Without Teflon Coating)	4.0 m	1 CSA : Class I, Div 2, Groups A,B,C,D ATEX : Ex nA II T6
M2 With (With Teflon Coating)	4.5 m	8 KTL : Ex nA II T4
U1 Without	6.0 m	
	6.5 m	



[ LT-EM ] Series  
Eddy Current Proximity System

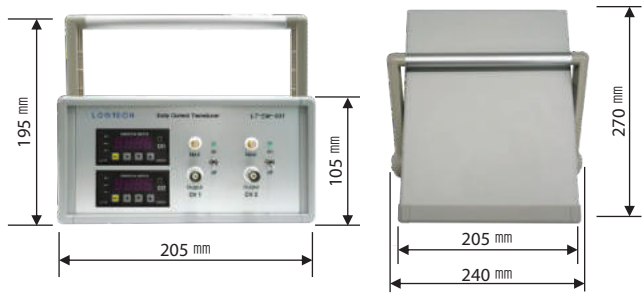


APPLICATION

The system provides an output voltage that is directly proportional to the distance between the probe tip and the observed conductive surface and can measure both static(position) and dynamic(vibration) values. The system's primary applications are vibration and position measurements on fluid-film bearing machines, as well as keyphasor reference and speed measurements.

The system delivers the most advanced performance in our eddy current proximity transducer systems.

Outline Dimensions



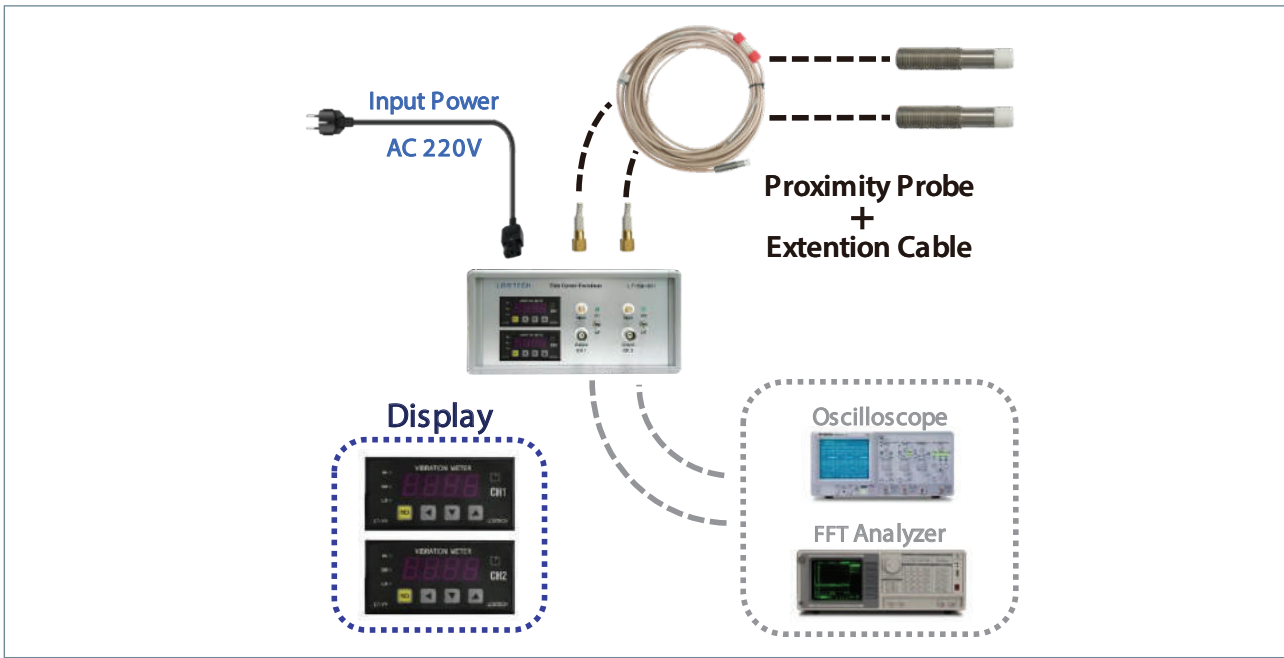
FEATURES

- Consists of a probe, extension cable, signal transducer(with internal power supply)
- Provide 2-channels of vibration monitoring(peak-to-peak vibration amplitude)
- Provide display panels and BNC connectors for local analysis
- Provide the output signal in mV/ $\mu$ m (typically 7.87mV/ $\mu$ m)
- Extension cable is available in a variety of lengths
- Probe is designed to offer API 670 compliant performance characteristics

Specifications

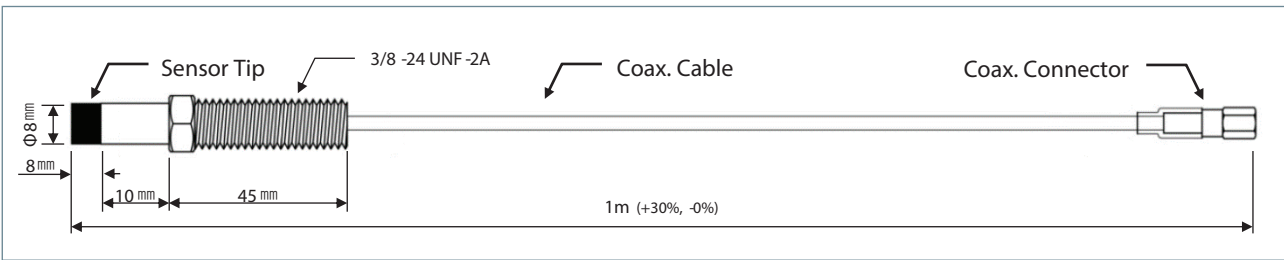
Input Power	220VAC 60Hz
Frequency Response	5~6000Hz (0~10,000Hz/-3dB)
Linear Range	2.0mm (Gap : 0.3 to 2.3mm)
Minimum Target Range	24mm diameter (assumes flat surface)
Calibrated Target Material	JIS SCM440 (AISI 4140 Steel) Flat Surface
Incremental Scale Factor (ISF)	7.87mV/ $\mu$ m (200mV/mil) $\pm$ 5%
Output Display	4 digit or 3 1/2 LED(red)
Alarm Mode Setting	Three adjusting mode ( High / Low / Go )
Output BNC Connector	7.87mV/ $\mu$ m ( Increasing probe gap gives a more positive output voltage)
Operating Temperature Range	Proximity Sensor & Extension Cable : -34~177°C Transducer(LT-EM-001) : 0~70°C
Relative Humidity	95% (non-condensing)

System Organization

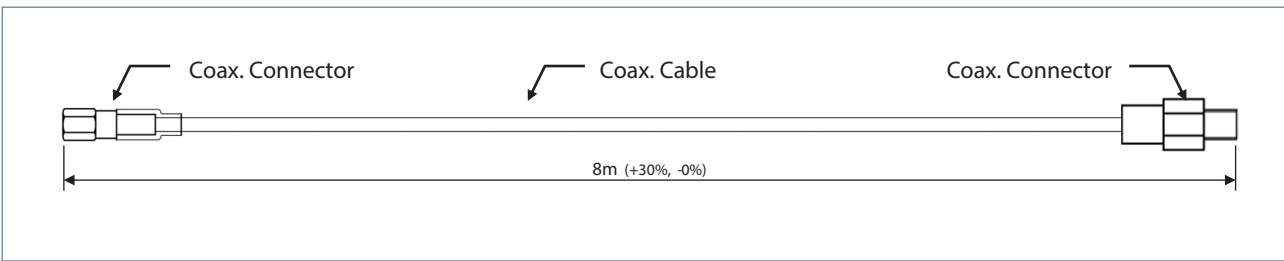


System Organization

Proximity Probe



Extension Cable



Ordering Information

LT - EM - 001 -   

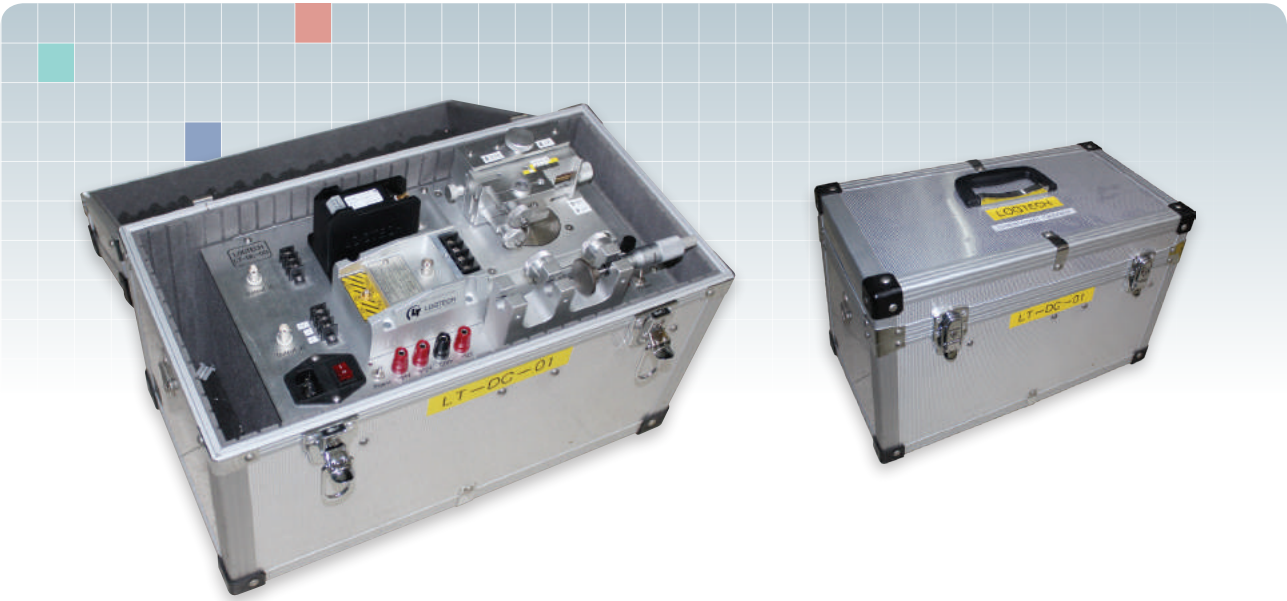
Channel

- 01 : 1CH
- 02 : 2CH
- 03 : 3CH



[ LT-DC03 ]

Eddy Current Proximity System



APPLICATION

This device is designed to measure output characteristics of an eddy current type displacement gauge. DC03 can check the performance of the displacement meter and the accuracy of the system reading.

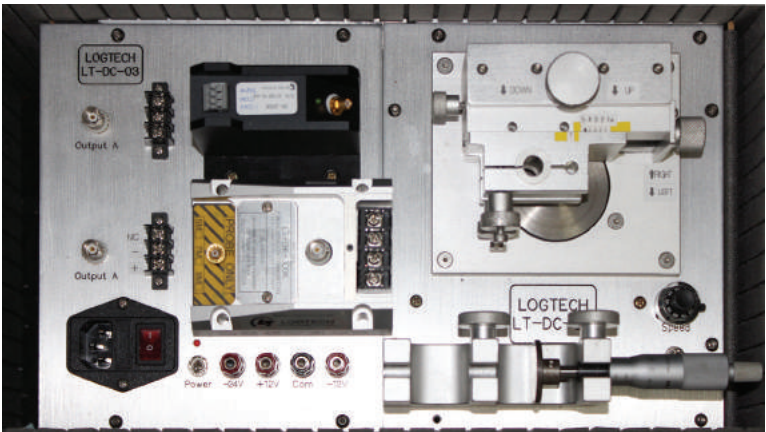
FEATURES

- Eddy current type displacement sensor calibration
- Dynamic displacement measurement
- Static displacement measurement
- Own power supply for converter operation
- Measuring dynamic displacement on horizontal movement
- Measuring static displacement on vertical movement

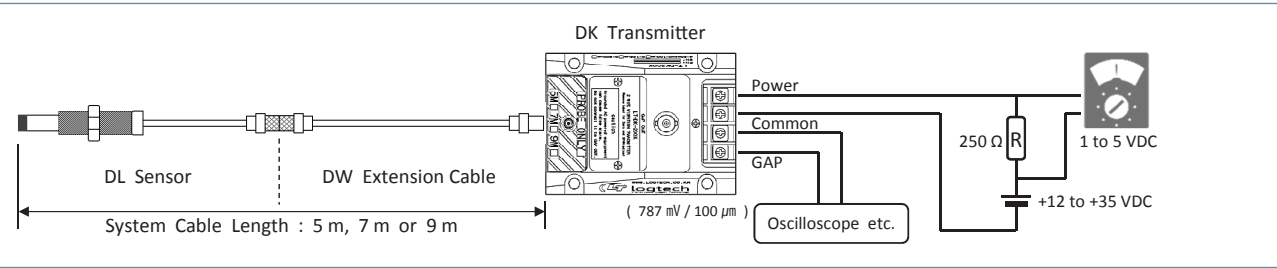
Specifications

Vibration amplitude range	50um~250um (horizontal) 0mm~10mm(vertical)
Number of revolution	0~14,000 rpm $\pm$ 1,000 rpm 0~230 cpm $\pm$ 10 cpm
Detectable object	AISI 4140 alloy Other Special metals (option)
Detection Probe standard	5~20 mm
Displacement measurement Range	25.5 mm
Power	AC 220V, 60Hz, 2A
Dimensions	350 * 450 * 250mm
Weight	Approx. 7kg
Operating temperature	0°C~50°C
Storage temperature	-20°C~70°C
Relative humidity	95%

System organization



System Configuration



Outline Drawing and Model Code / DL Sensor

**DK-200K05** [ ] - [ ] [ ] [ ] [ ] [ ] [ ] /NB [ ]

Armor	Threaded Size	Unthreaded Length*(L1)	Case Length*(L2)	Cable Length (L3)	Non-Incendive
A With (Without Teflon coating)	M1 M8 x 1	10 mm step, 0 to 230 mm e.g.) 06 = 60 mm L1 $\leq$ L2 - 20 mm	10 mm step, 20 to 250 mm e.g.) 25 = 250 mm	1 0.5 m	1 CSA : Class I, Div 2, Groups A,B,C,D ATEX : Ex nA II T6 KTL : Ex nA II T4
T With (With Teflon coating)	M2 M10 x 1			2 0.5 m	
L Without	U1 1/4-28 UNF-2A	0.1 inch step, 0 to 9.2 inch e.g.) 01 = 0.4 mm L1 $\leq$ L2 - 0.7 inch	0.1 inch step, 0.8 to 9.9 inch e.g.) 35 = 3.5 inch	3 0.5 m	
	U2 3/8-24 UNF-2A			4 0.5 m	
				5 0.5 m	



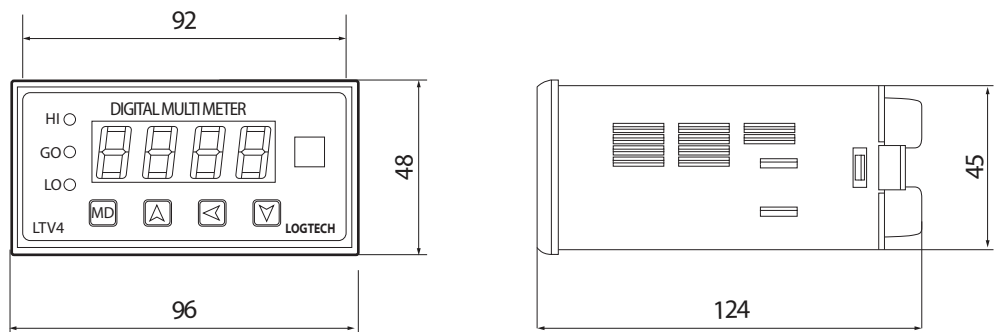
[ LT-V4 ] Series  
Transducer



APPLICATION

- High performance and low cost
- Acceleration , Velocity ,Displacement sensor
- Three annunciator LEDs provide front panel alarm status indication
- Provide 4~20mA output for PLC, DCS and SCADA
- Offer operation as vibration switch with relay output signals
- Programmable 3-level set points

Outline Dimensions



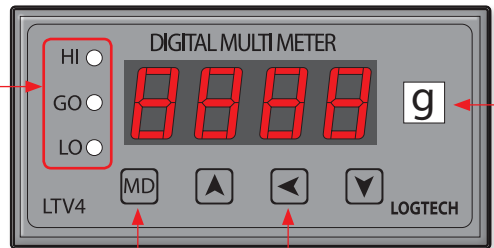
Specifications

Power Supply	220Vac 50/60Hz
Sensor	Acceleration, Velocity, Displacement sensor
Output Display	7 segment x 4-digit or 3½ LED (RED)
Indication Range	-999 to 9,999 with decimal point
Measurement Calibration	RMS* or PEAK selection ( * =Default setting )
Alarm Level Indication	3-states(HI/GO/LO) LED
	( When an alarm level is exceeded, the corresponding LED will show the alarm status )
Relay Output	"HI", "GO" or "LO" relay status is user programmable
Relay Capacity	250Vac 3A, 30VDC 3A
Analog output	4-20mA retransmit for PLC, DCS or SCADA
Operating Temperature	0 to +60 °C
Storage Temperature	-20 to +80 °C
Relative Humidity	Max. 95% RH non-condensing
Case Dimensions	48(H)X96(W)X127(D) mm
Weight	Approx. 500g

Front panel identification

Output Indication

HI : High output indication of preset  
GO : Go output indication of preset  
LO : Low output indication of preset

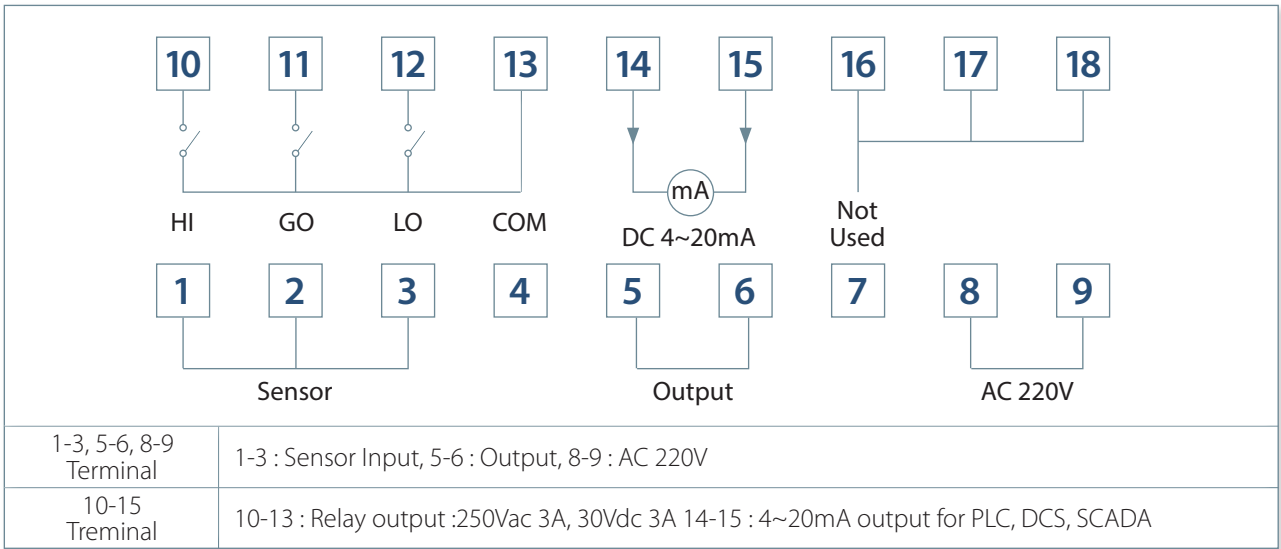


Unit label part

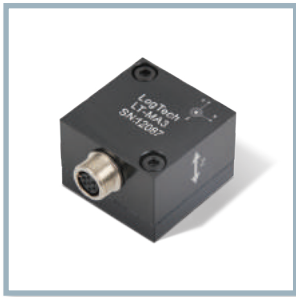
MD Mode key

Control key

Output Terminal Connection



Related Other Products



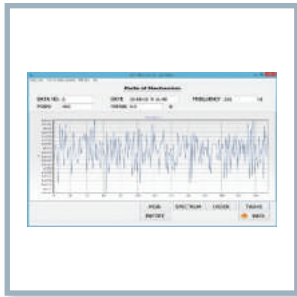
Acceleration Sensor



Velocity Sensor



Displacement Sensor



[ LT-MMDS ]  
Analysis software



[ LT-V4-3 ] Series  
Transducer



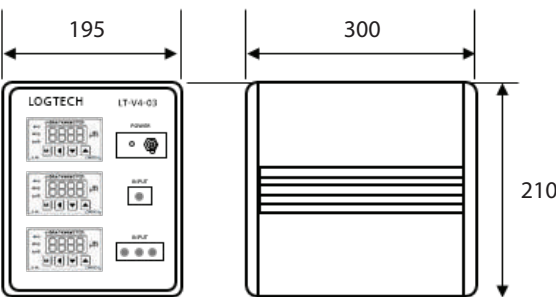
APPLICATION

It is designed to monitor vibration levels of auxiliary rotating machinery such as

- Motors & Generators
- Fans, pumps & Compressors
- Small hydro turbines
- Cooling towers
- Piping Vibration, etc.



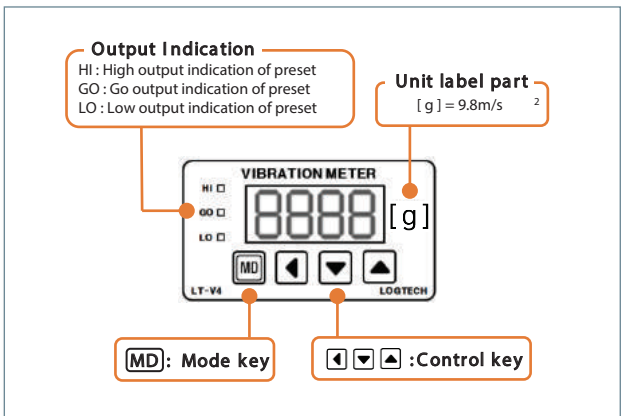
Outline Dimensions



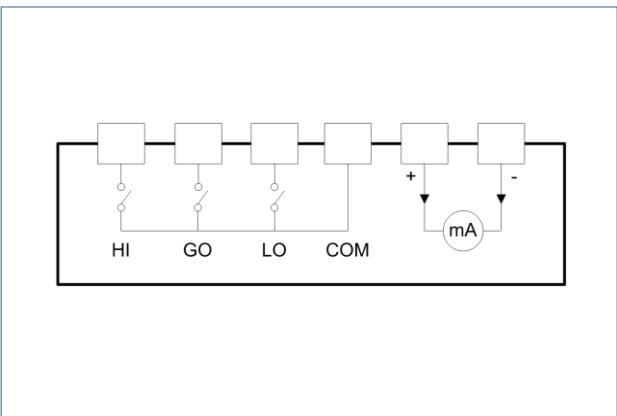
Specifications

Input power	220Vac 50/60Hz
Input signal	4-Input ports (Triaxial channel and 3each independent input channels)
Output display	7 segment x 4-digit or 3½ LED Display (RED)
Max. indication range	-999 to 9,999 with decimal point
Measurement Calibration	RMS* or PEAK selection ( * =Default setting )
Front pannel 3-states indicators	"HI", "GO" or "LO" relay status is user programmable ( When an alarm level is exceeded, the corresponding LED will show the alarm status )
Relay Output	"HI", "GO" or "LO" relay status is user programmable (Relay capacity : 250Vac 3A, 30.Vdc 3A)
Analog output	4-20mA retransmit for PLC, DCS or SCADA
Operating Temperature	0 to +60 °C
Storage Temperature	-20 to +80 °C
Relative Humidity	Max. 95% RH non-condensing
Case Dimensions	48(H)X96(W)X127(D) mm
Weight	Approx. 2.5kg

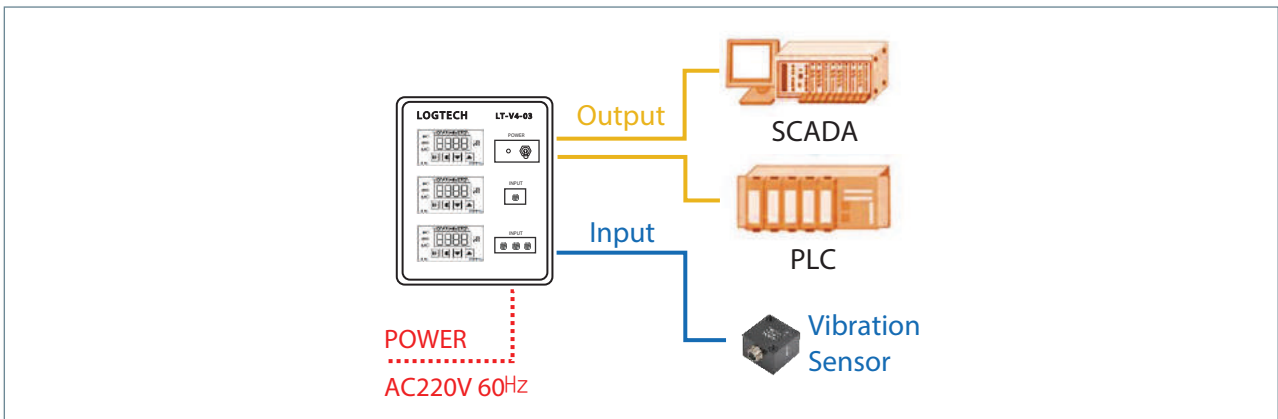
Wiring Diagrams



Front panel identification

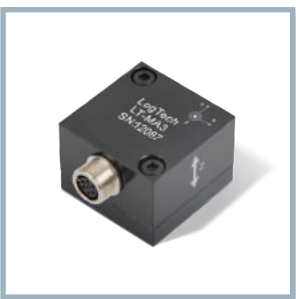


Output terminal connection



System organization

Related Other Products



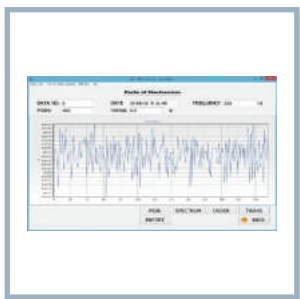
Acceleration Sensor



Velocity Sensor

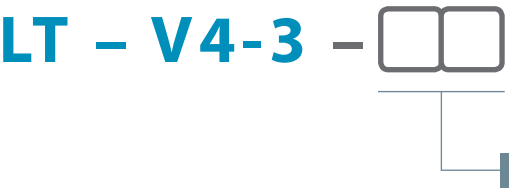


Displacement Sensor



[ LT-MMDS ]  
Analysis software

Ordering Information



01 : 1-channel  
02 : 2-channels  
03 : 3-channels



[ LT-V100 ] Series  
Transducer



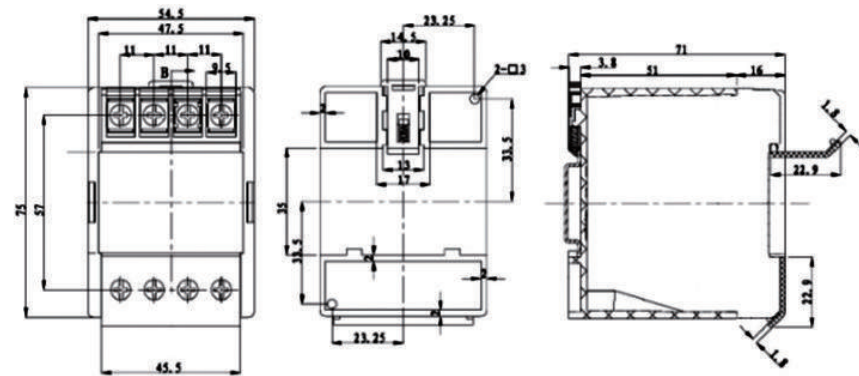
APPLICATION

- Remote vibration measurement
- RMS output for Trend Management
- Power supply and signal process of Vibration Sensor

FEATURES

- Acceleration/velocity, RMS/peak out
- 1~5 VDC, 4~20 mA output
- 1~50 G (20cm/s) measurement
- 1~10,000 Hz frequency response
- Power supply of Acceleration, velocity sensor
- Relay output
- Diagnosis signal out (signal processing)

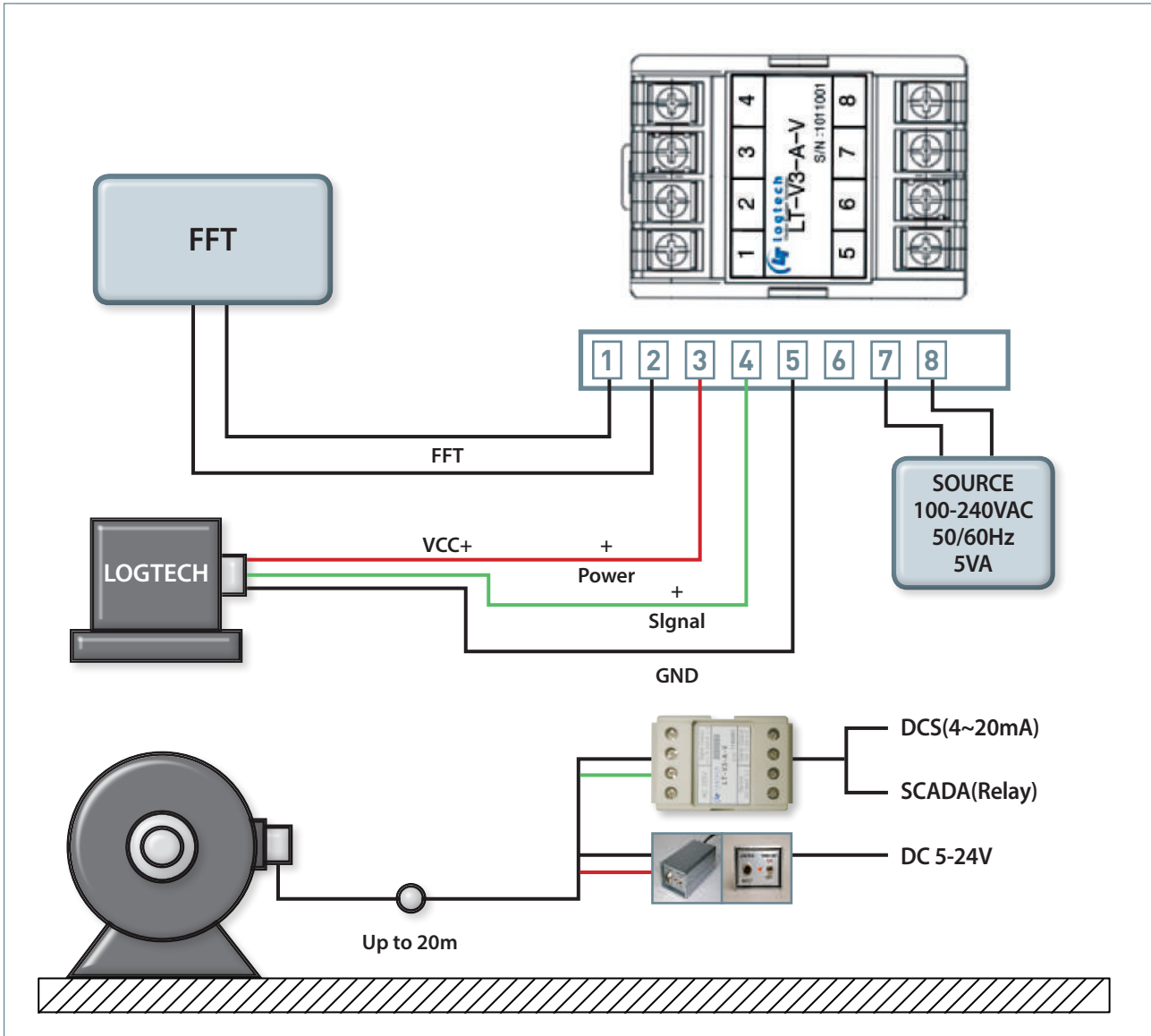
Outline Dimensions



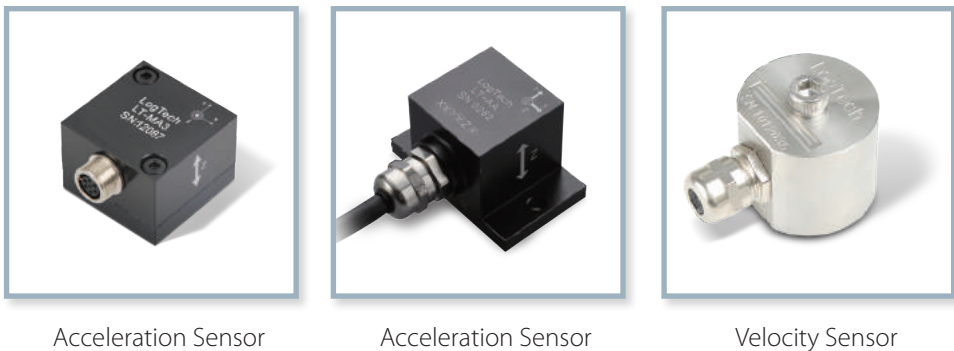
Specifications

Available sensor	Acceleration , Velocity sensor
Acceleration measurement Range	$\pm 50g$ (peak)
Velocity measurement Range	20cm/s (peak)
Frequency Range	1~10,000 Hz
Output Signal	4~20 mA, 1~5V DC
Power	AC 110~220V, DC 24V (option)
Case Material	PE
Case Size	95 * 45 * 93 mm
Weight	Approx. 400g
Shock Limit	1000G

Wiring Diagrams



Related Other Products



Acceleration Sensor

Acceleration Sensor

Velocity Sensor



[ LT-1000 ] Series  
Transducer



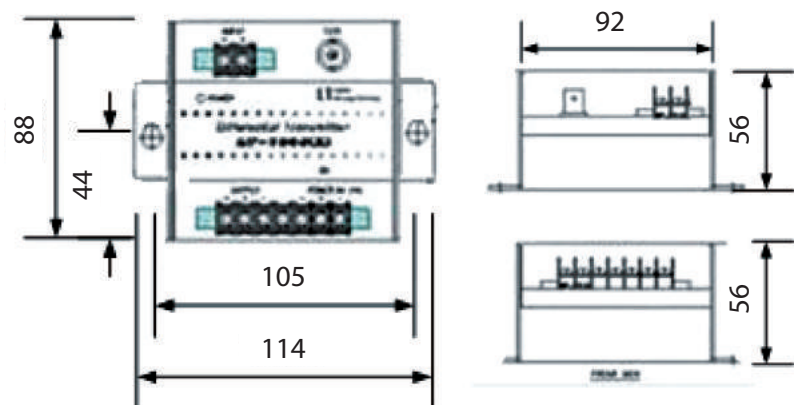
**APPLICATION**

- Long distance transmission device of Analog vibration signal for industrial and construct field

**FEATURES**

- Static electric charge sensor, ICP sensor
- Sensor driver for ICP
- Maximum 1km transmission
- Amplification rate modification possible

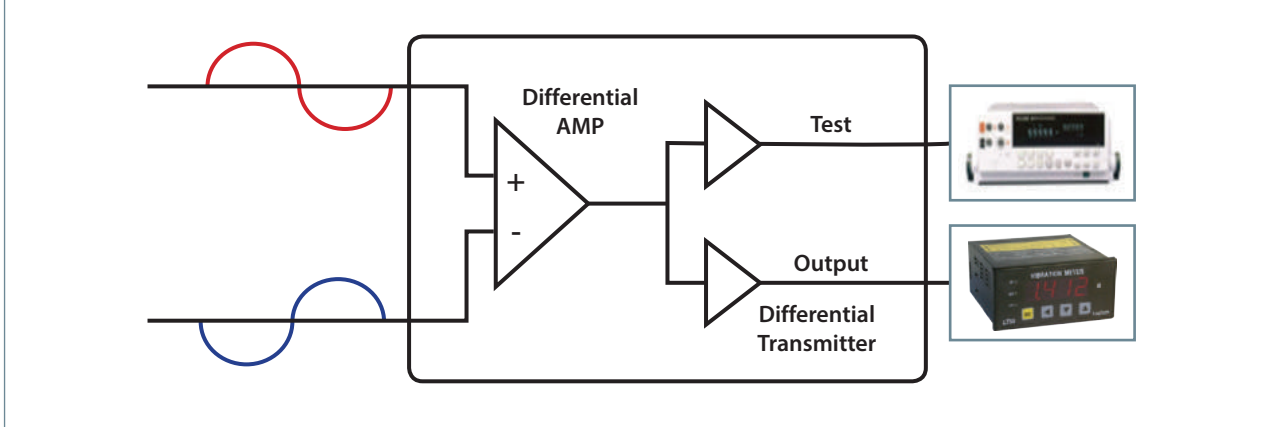
**Outline Dimensions**



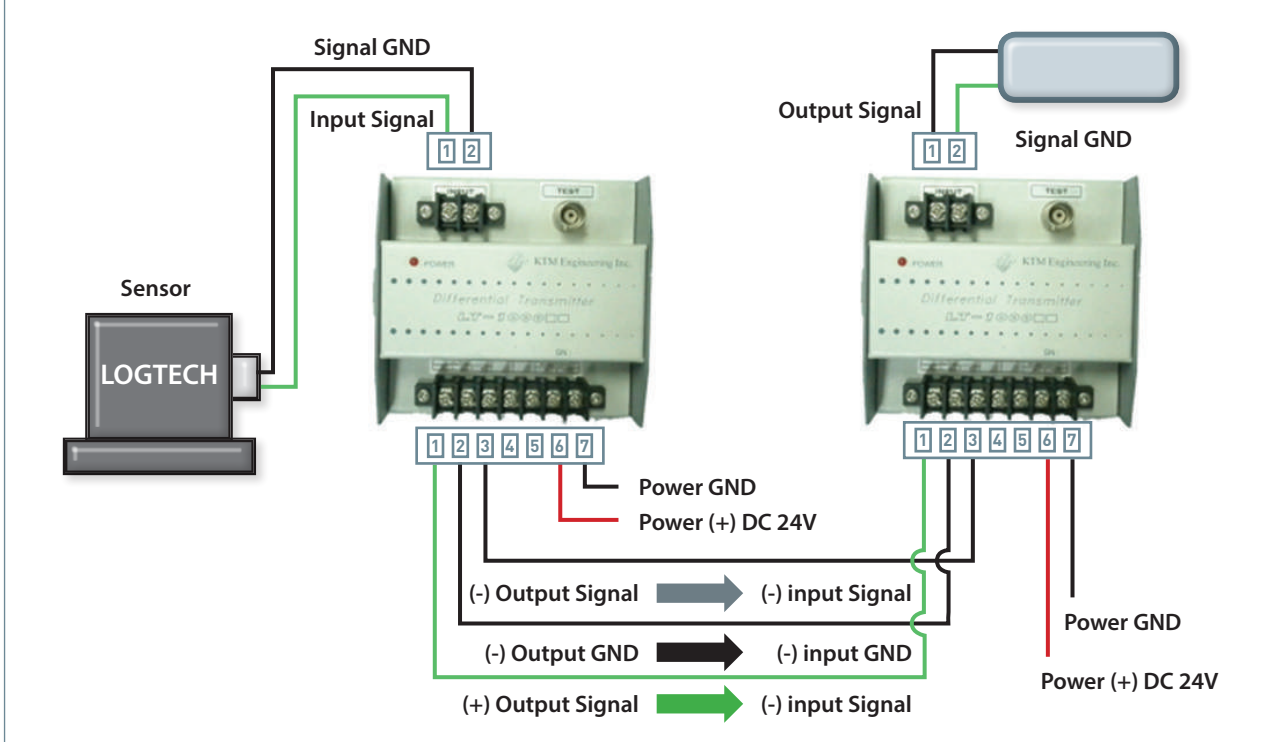
**Specifications**

Available sensor	Static electric charge sensor, ICP sensor
Transmission distance	Maximum 1km
Transmission voltage	10mV ~ 5,000mV
Amplification factor	X1, x2, x4, x8
power	DC 24V
Case material	SS41
Case dimension	92 * 88 * 56mm
Weight	Approx. 420g
Temperature	0°C ~ 50°C

**Wiring Diagrams**



**Wiring Diagrams**



**Related Other Products**



Acceleration Sensor      Acceleration Sensor      Acceleration Sensor



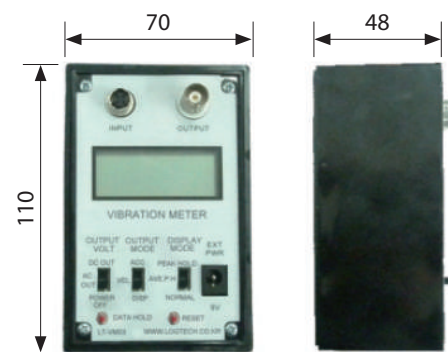
[ LT-VM03 ] Series  
General purpose vibration meter



APPLICATION

- CNC, Machine Vibration Check
- Machine Vibration Analysis
- Motors
- Pumps
- Fans
- Compressors
- Engines
- Gear Boxes

Outline Dimensions



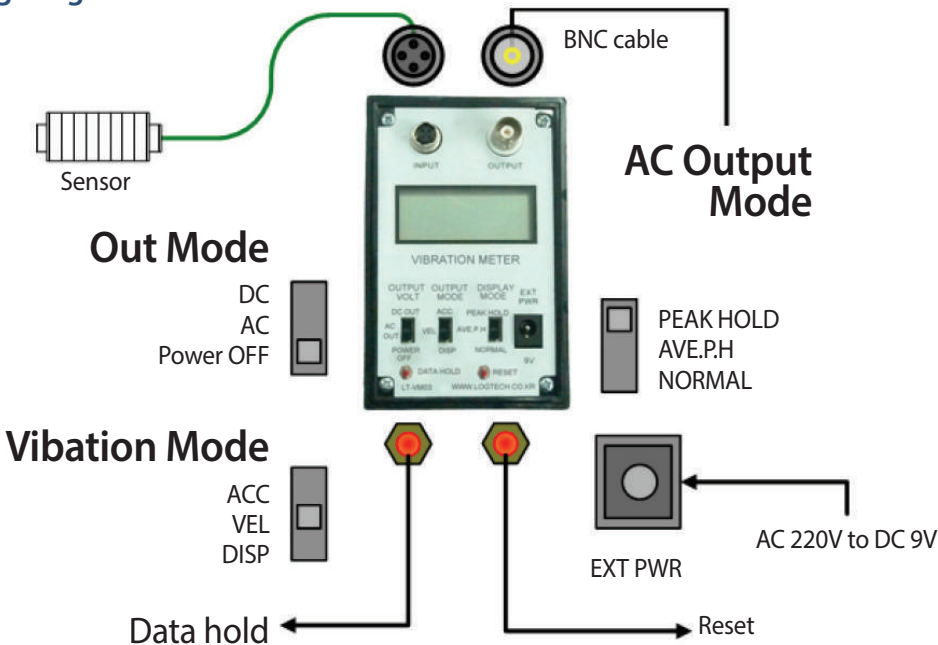
FEATURES

- 1 axis measurement
- Acceleration, velocity, displacement measurement
- Interworking of measurement data with Excel
- Battery or power cable(DC 9V) available

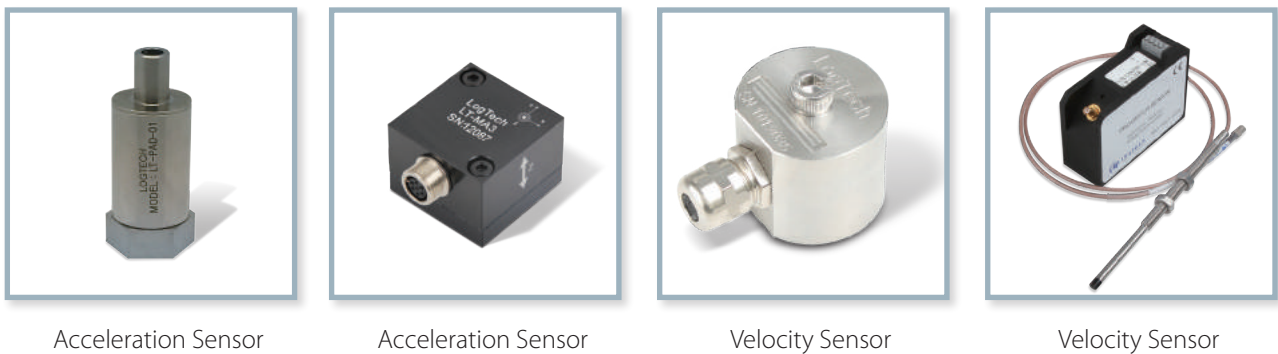
Specifications

Sensor	Acceleration sensor
Output Display	3½ LCD
Indication Range	-999 to 9,999 with decimal point
Acceleration	1.0 ~50 G (PEAK)
Velocity	5~50 mm/sec (PEAK)
Displacement	100~2,000 um (PEAK)
Power supply	9V Battery, EXT 12V DC
Analog output	DC 5V, AC ± 5V
Operating Temperature	0 to +60 °C
Storage Temperature	-20 to +80 °C
Relative Humidity	Max. 95% RH non-condensing
Case Dimensions	110X70X48 mm
Weight	Approx. 500g

Wiring Diagrams



Related Other Products



Ordering Information

LT - VM03 -

Frequency Range

- 01 : 1,000 Hz
- 02 : 5,000 Hz
- 03 : 10,000 Hz



## [ LT-MMDS ] Machine Monitoring diagnosis system

Portable device



### FEATURES

- Continuous monitoring of machine health
- Simple, user-friendly interface
- Time series and frequency spectrum analysis
- Powerful alarm and notification capabilities
- Valuable features for both expert and novice users

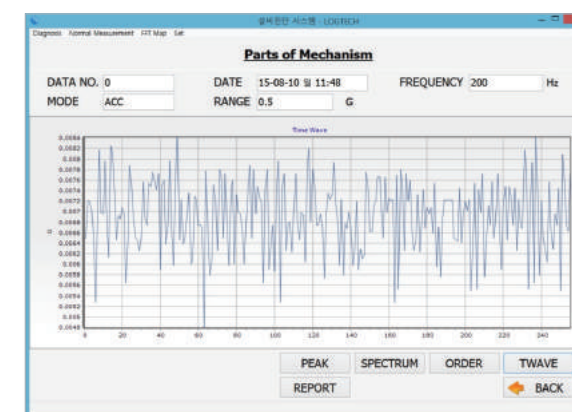
### Vibration data Analysis

- ▶ Waveform Analysis - Visual identification of periodic and transient events in the sensor input signal
- ▶ Spectrum Analysis (FFT). Data in frequency domain helps to identify fault frequencies and relate them to the corresponding machine component conditions
- ▶ Analysis in acceleration, velocity, or displacement units. Multiple graphs can be compared for analysis. Interactive cursors and scaling, zoom, and other features
- ▶ Bearing Signal Enveloping helps in early identification of developing bearing faults

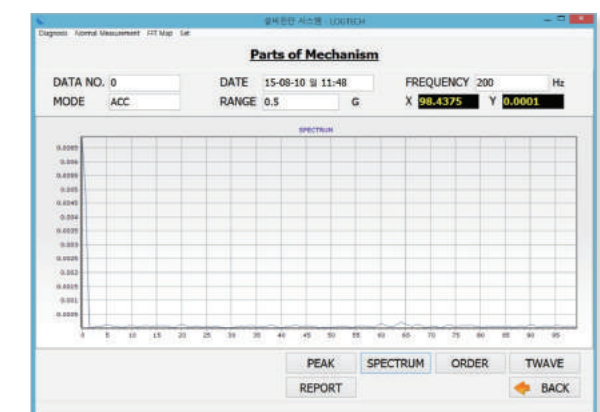
### Historical Data and Trend Analysis

- ▶ Dedicated History tab for analyzing trends
- ▶ Interactive graph for data search by date and value
- ▶ Shows average, min and max values on a graph for selected period of time
- ▶ Various aggregate parameters for trending: Peak, Average and RMS
- ▶ Drill down to individual data sets to select them for vibration analysis

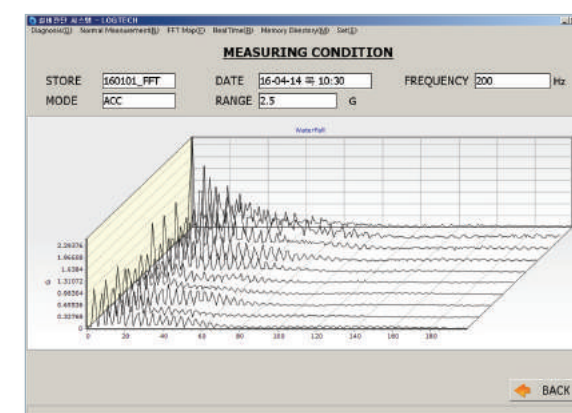
### Real time-domain waveform



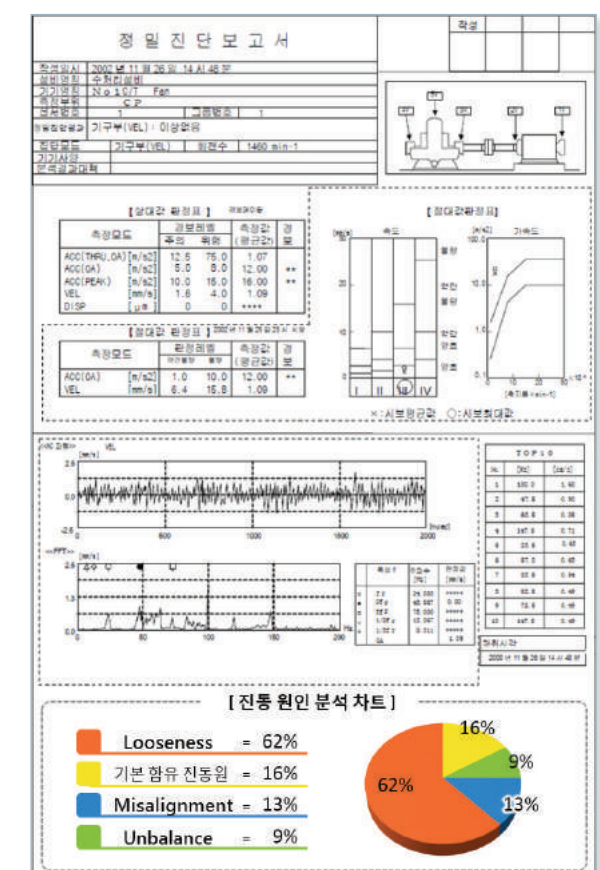
### FFT spectrum analysis



### 3D FFT spectrum analysis



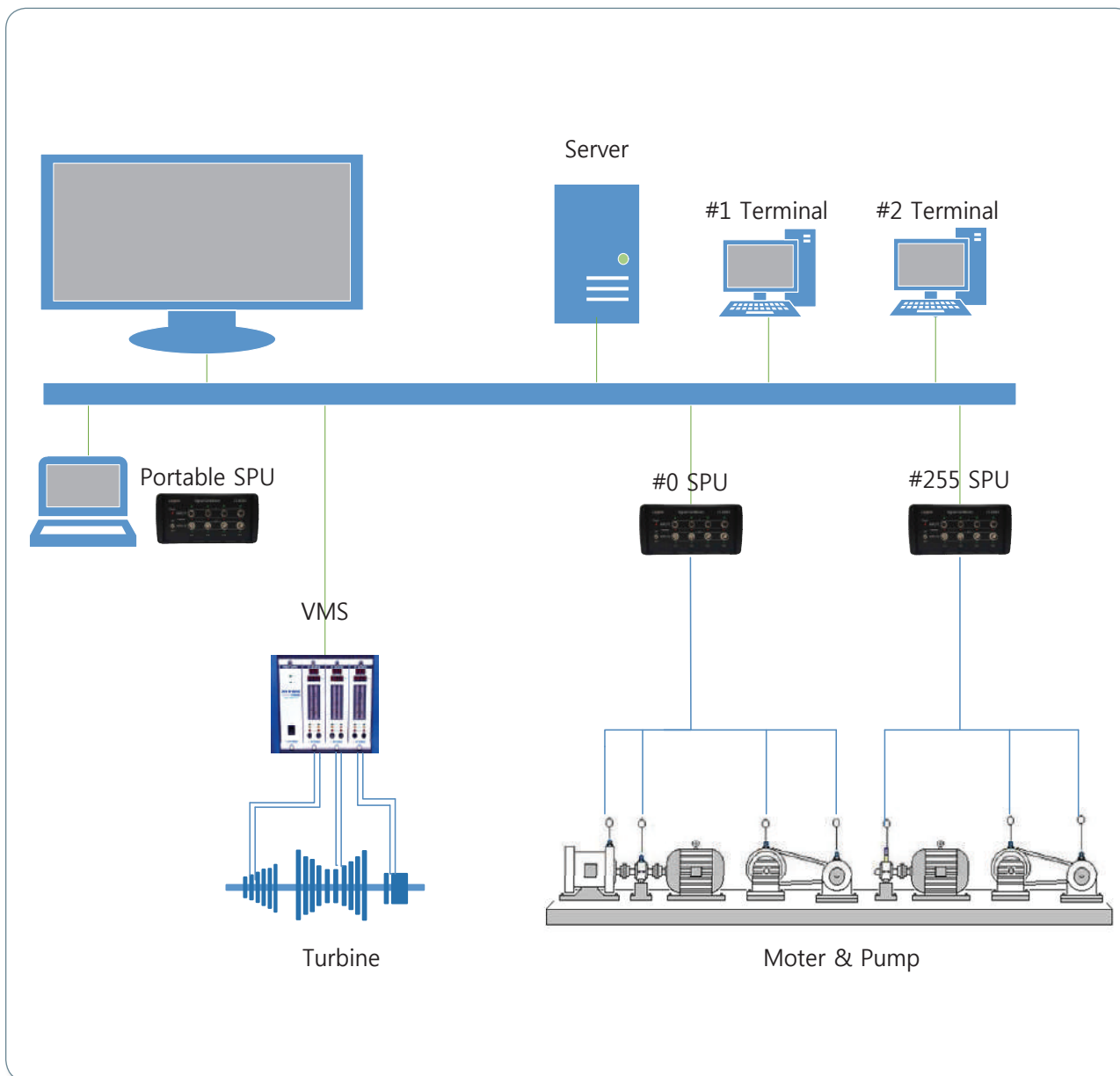
### Report generation for documentation of analysis results





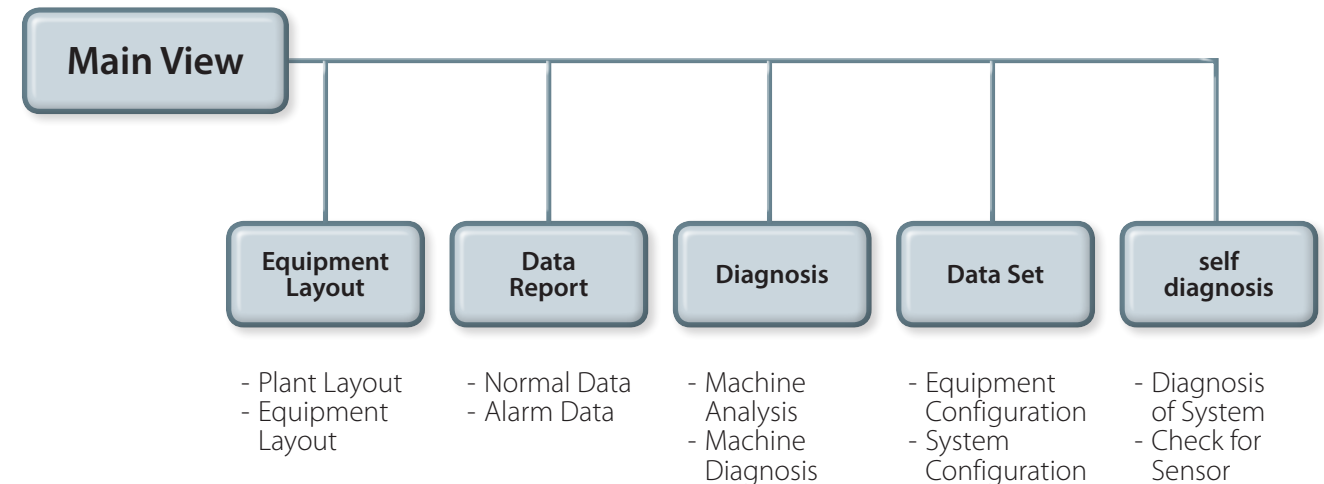
## [ LT-CMS ] Machine Monitoring & Diagnosis System

MMDS can help you make a decision about the condition of machine for the future. After monitoring the status of machine, for example the stress, performance, deterioration and various trouble, you can find and evaluate the kinds of cause, location of trouble, the severity of danger. So Machine Diagnosis System lets your machinery keep "Good Condition".



### The Benefits of Machine Analysis

The Success of a company often depends on the continued, safe and productive operation of rotating machinery. An effective maintenance is vital to this kind of success. The quality of maintenance determines how long the machines will run, how safe they are for the people working around them, and how productive the machine will be. According to this, we are going to introduce the benefits of our system, "MMDS".



### Measuring

- ▶ Plant Layout : Display the condition about all equipments in the plant.
- ▶ Equipment Layout : Display the condition about selected equipment in the plant (run or not, loaded or not, normal ,caution, damage etc)

### Trend

- ▶ Trend graph : Display the trends of vibration or temperature about the selected equipment (hourly, daily, weekly, monthly)
- ▶ Trend Prediction : predict the trend of vibration based on the past data.

### Measuring

Quantify the signal transformed from the vibration gathered during rotation. those are acceleration, velocity and displacement.

- ▶ **Mode** Acc' O/A RMS, Acc' PEAK, Acc' RMS. Velocity RMS. Displacement RMS, PEAK.
- ▶ **Sensor** Acceleration, Velocity, Displacement, Temperature, Pressure, Rotation, etc.
- ▶ **Equipment** Motor, Fan, Compressor, Pump, Gear Box, etc.
- ▶ **Period** All the time, Random Measuring.

### Vibration data Analysis

- ▶ Waveform Analysis - Visual identification of periodic and transient events in the sensor input signal
- ▶ Spectrum Analysis (FFT). Data in frequency domain helps to identify fault frequencies and relate them to the corresponding machine component conditions
- ▶ Analysis in acceleration, velocity, or displacement units. Multiple graphs can be compared for analysis. Interactive cursors and scaling, zoom, and other features
- ▶ Bearing Signal Enveloping helps in early identification of developing bearing faults



[ LT-7000 ] Series

Vibration measurement & Data acquisition system



APPLICATION

- Strain displacement measurement of construction site
- Equipment vibration and temperature of industrial site monitoring
- Long distance wireless measurement of civil engineering site

Outline Dimensions



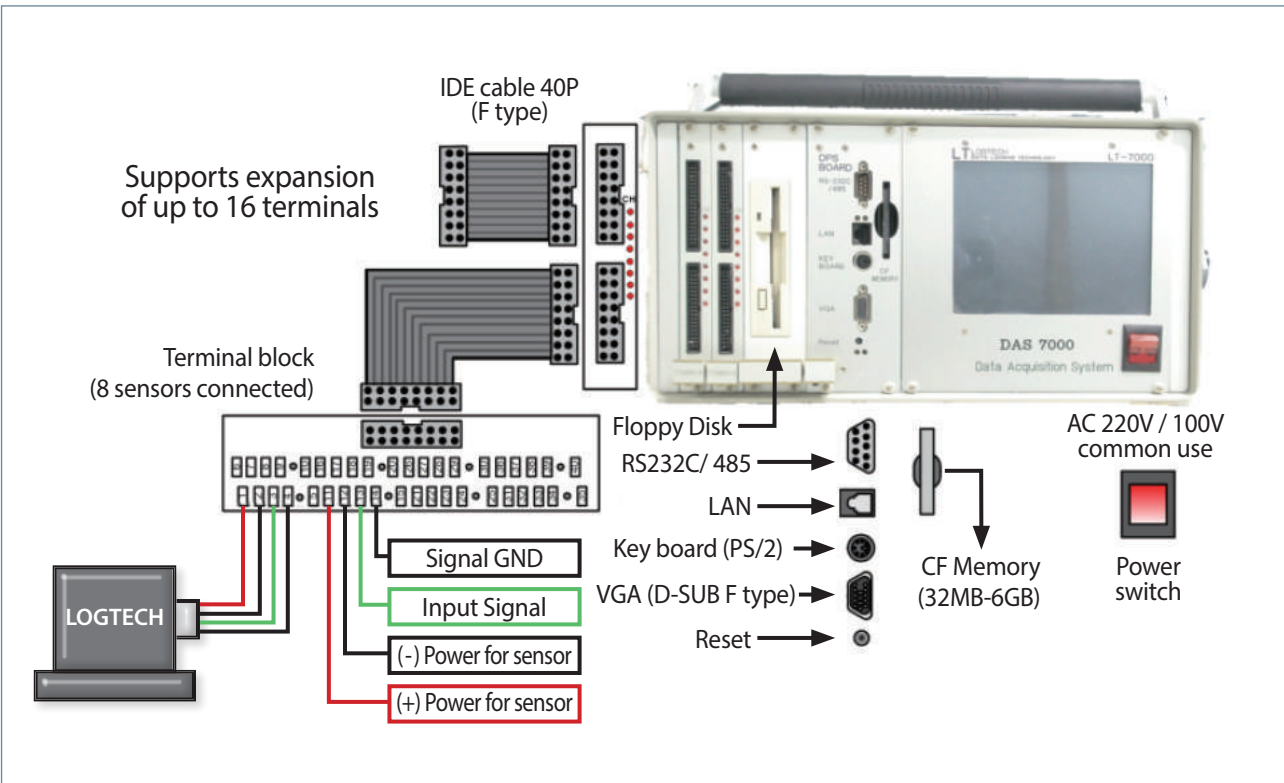
FEATURES

- Data acquisition, transmission, storage and operation
- 12 bit ADC Resolution
- Available portable CF memory (32 MB ~ 6 GB)
- Mountable various converters inside
- total 128 sensors available
- Interworking of measurement data with Excel

Specifications

Number of Input channels	Max 128 channels
Available sensor	Acceleration sensor (DC 5V supply) Strain gauge (DC 5V supply) Pt 100 (2mA supply)
Measurement range	±5,000mV
Accuracy	1mV scale
Resolution	0.1V
PGA	X1, x10, x100, x500
Measurement cycle	1min, 10min, 60min
Communication type	TCP/IP
Power	AC 110V / 220V
Case size	195*365*365mm
Weight	Approx. 10kg

Wiring Diagrams



Related Other Products



Acceleration Sensor



Acceleration Sensor



Velocity Sensor

Ordering Information

LT - 7000 - [ ] - [ ] - [ ]

**Data acquisition**  
D : Dynamic  
S : Static

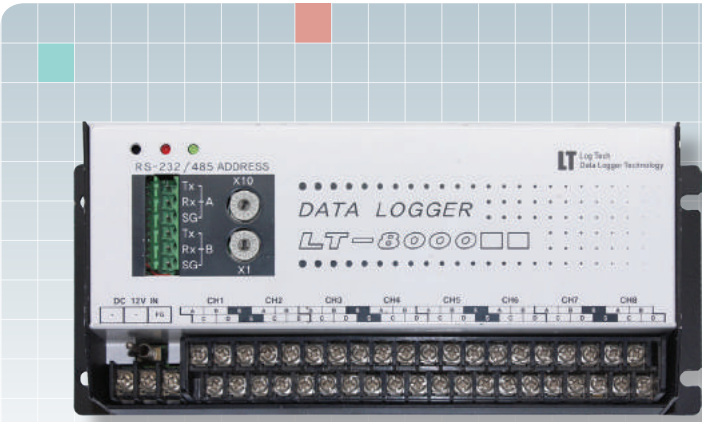
**Communication type**  
02 : 232C  
04 : 485  
L : LAN  
RF : RF (wireless)

**Power**  
A : AC220V  
D : DC 9V~12V  
S : Power supply option



[ LT-8000 ] Series

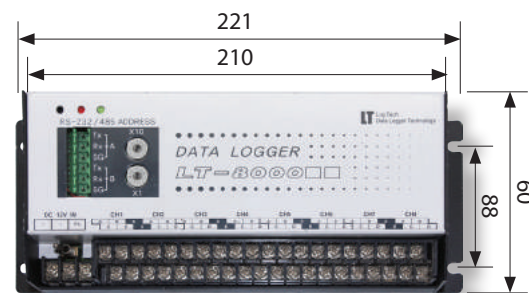
Vibration measurement & Data acquisition system



APPLICATION

- Strain displacement measurement of construction site
- Equipment vibration and temperature of industrial site monitoring
- Long distance wireless measurement of civil engineering site

Outline Dimensions



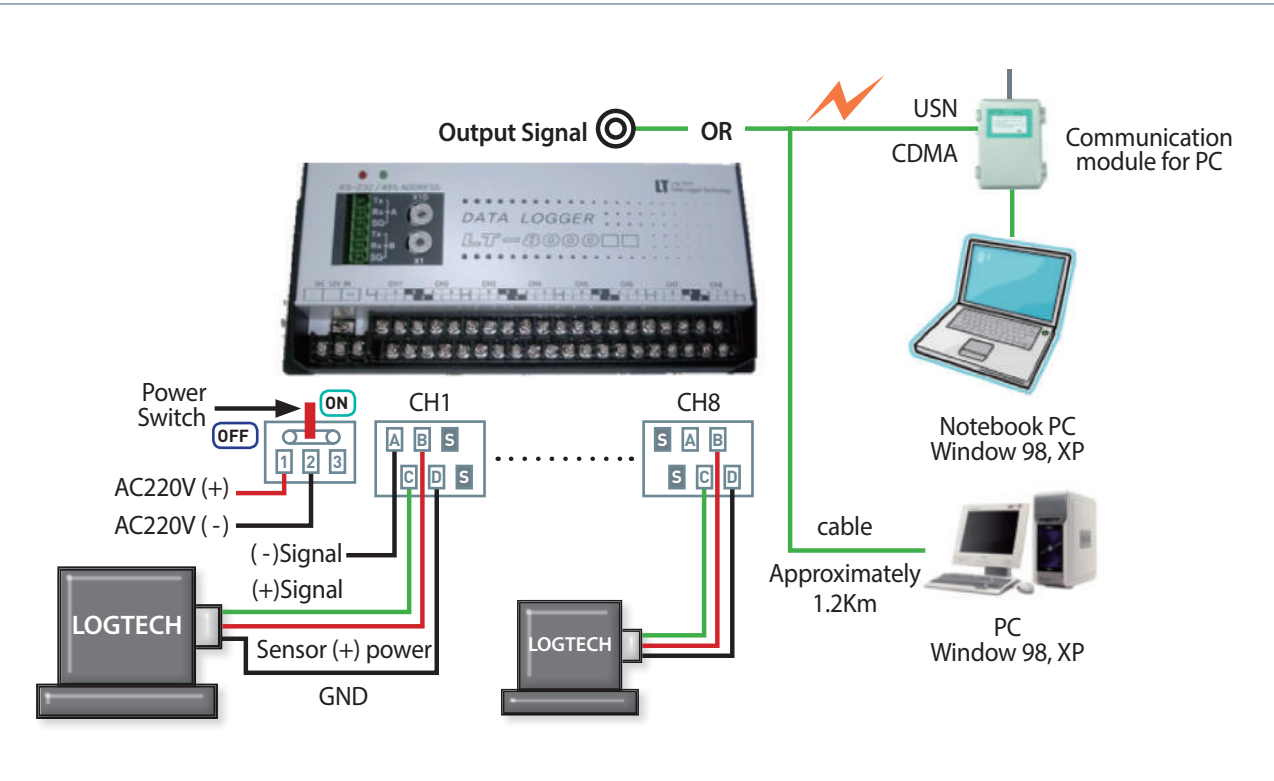
FEATURES

- Data acquisition, transmission, storage and operation
- 24 bit ADC Resolution
- Mountable various converters inside
- 8 channel temperature measurement
- RS-485, wireless or modem
- Interworking of measurement data with Excel

Specifications

Number of Input channels	8 channels
Available sensor	Acceleration sensor (DC 5V supply) Strain gauge (DC 5V supply) Pt 100 (400uA supply)
Sampling rate	100~1500ea/s
Measurement cycle	Manual or Automatic
Communication display way	Reception : Red LED Transmission : Green LED
Transmission distance	cable : 1,200m wireless : 200m modem : unlimited
Transmission type	RS-232C, LAN, CDMA, USN
Power	DC 9 ~ 12V, 200mA
Case size	221*88*43mm
Weight	Approx. 500g

Wiring Diagrams



Related Other Products



Acceleration Sensor



Acceleration Sensor



Velocity Sensor

Ordering Information

LT - 8000 - [ ] - [ ] - [ ]

**Data acquisition**  
D : Dynamic  
S : Static

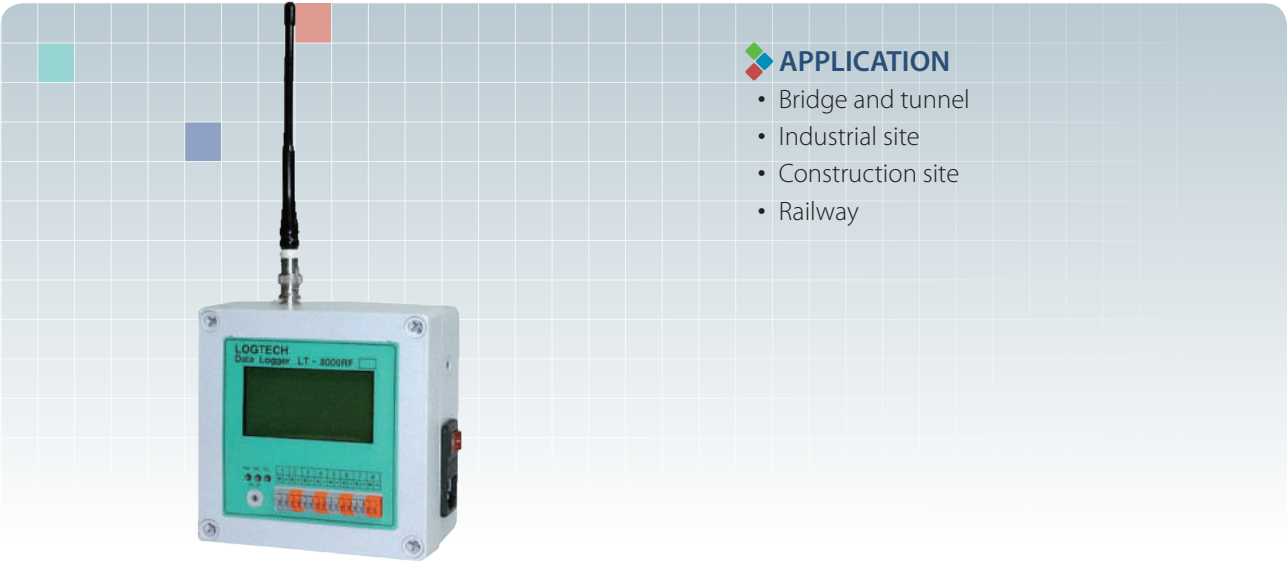
**Communication type**  
02 : 232C  
04 : 485  
L : LAN  
RF : RF (wireless)

**Power**  
A : AC220V  
D : DC 9V~12V  
S : Power supply option



[ LT-8500 ] Series

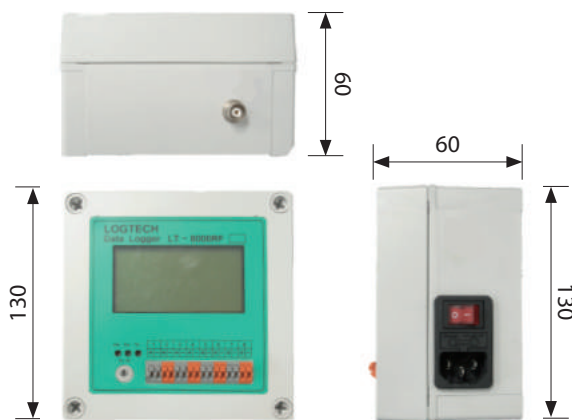
Wireless Vibration monitoring & Data acquisition system



APPLICATION

- Bridge and tunnel
- Industrial site
- Construction site
- Railway

Outline Dimensions



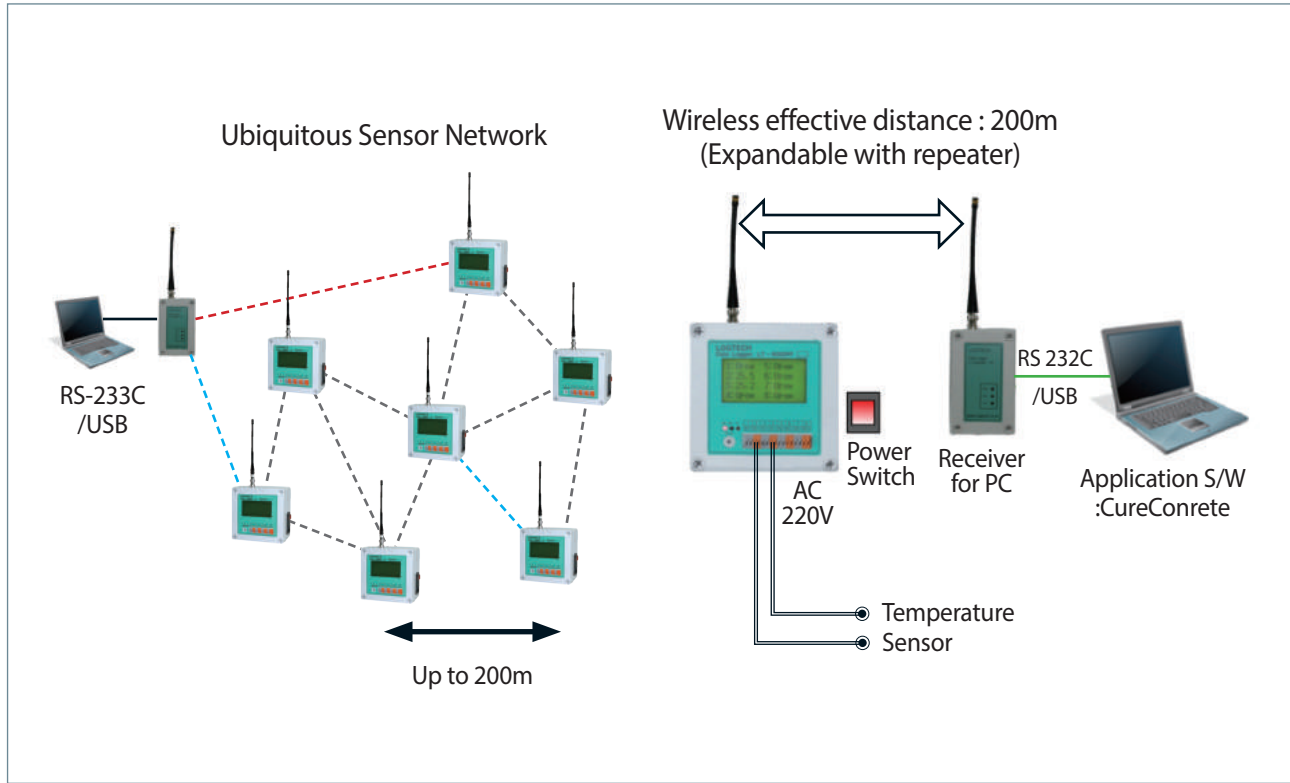
FEATURES

- Wireless data acquisition, transmission, store
- Maximum 200m distance
- Available 8 wireless measuring instruments
- AC 220V or DC 12V Portable battery

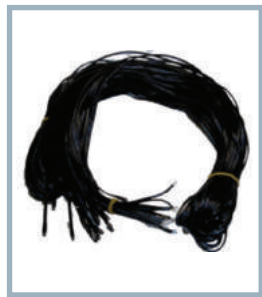
Specifications

Measurement range	±2G
Available sensor type	Acceleration sensor
Wireless communication frequency	424MHz
Notification cycle	1s
Transmission distance	Within 200m
Data transfer rate	2,400bps
Power	AC 220V or DC 12V Battery
Alarm type	Alarm and Lamp flickering
Case Size	130 * 130 * 60 mm (except antenna)
Case material	ABS
weight	1kg
Temperature range	-40°C ~ 85°C

System organization



Related Other Products



Temperaturre Sensor

Sensor Type	Thermistor
Measurement Range	-30°C~100°C
Precision	±1°C
Resolution	0.5°C
Case material	Plastic
length	3m
weight	500g (20ea)



Humidity Sensor

Type	4 wires type
Precision	±3%RH or ±5%RH
Case material	ABS
length	3m
weight	110g (without case)
Operating temperature range	-30°C~100°C
weight	500g (20ea)

Ordering Information

LT – 8500 – [ ] – [ ] – [ ]

Data acquisition

D : Dynamic  
S : Static

Communication type

02 : 232C  
04 : 485  
L : LAN  
RF : RF (wireless)

Power

A : AC220V  
D : DC 9V~12V  
S : Power supply option



[ LT-9000 ] Series

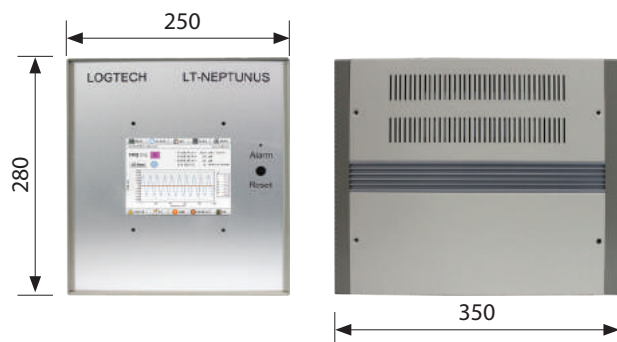
Earthquake monitoring & Data acquisition system



APPLICATION

- Earthquake Data logging
- Low frequency vibration monitoring for building
- Vibration monitoring of construction
- Data logging for Earthquake Lab.

Outline Dimensions



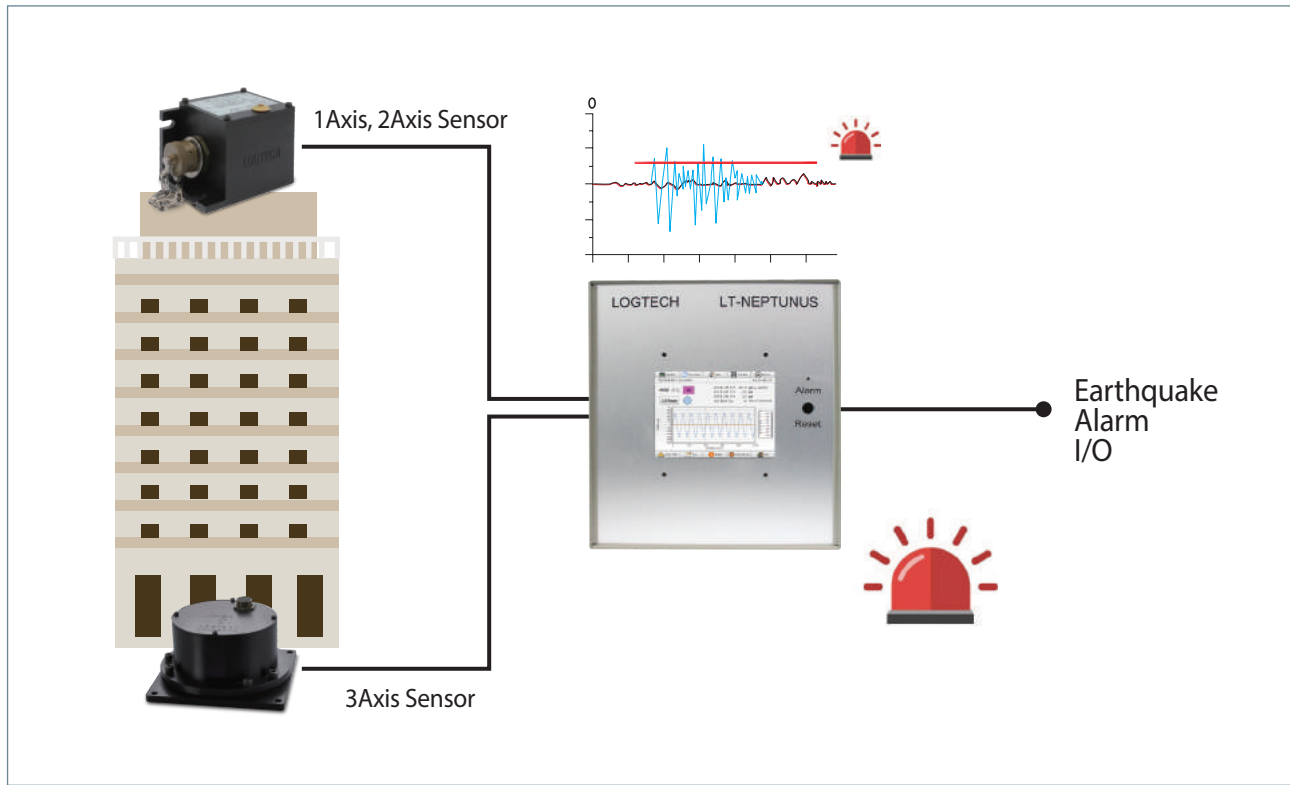
FEATURES

- Earthquake data logging, transmission
- 24 Bit ADC
- Comfortable CF memory(32MB ~ 6GB)
- Standard 6-channels input available
- Easily transfer to Excel format

Specifications

Number of Input channels	Max 128 channels
Available sensor	Acceleration sensor (DC 5V supply) Strain gauge (DC 5V supply) Pt 100 (2mA supply)
Measurement range	±5,000mV
Accuracy	1mV scale
Resolution	0.1V
PGA	X1, x10, x100, x500
Measurement cycle	1min, 10min, 60min
Communication type	TCP/IP
Power	AC 110V / 220V
Case size	195*365*365mm
Weight	Approx. 10kg

System organization



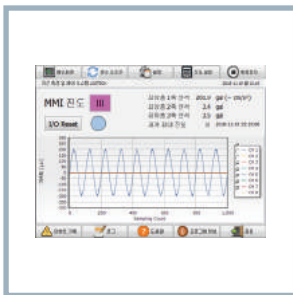
Related Other Products



[LT-SA-01]  
Servo type  
Acceleration



[LT-SA-03]  
Servo type  
Acceleration



[LT-DAQ]  
Analysis software

Ordering Information

LT – 9000 – ☐ – ☐ – ☐

**Data acquisition**  
D : Dynamic  
S : Static

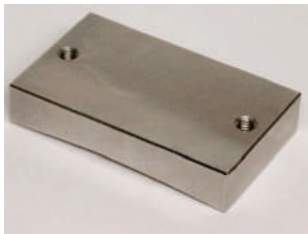
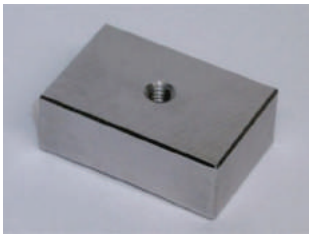

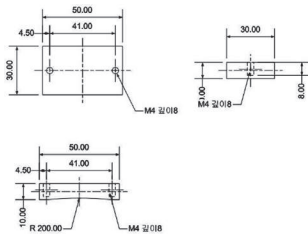
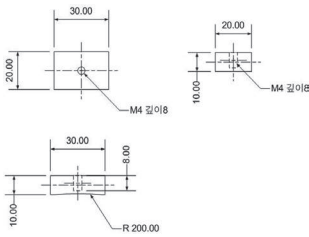
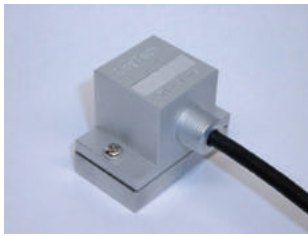
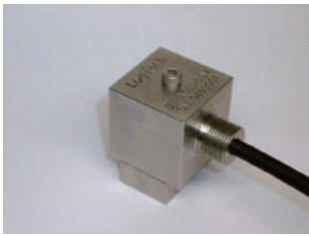
**Communication type**  
02 : 232C  
04 : 485  
L : LAN  
RF : RF (wireless)




**Power**  
A : AC220V  
D : DC 9V~12V  
S : Power supply option







[ Accessories ]

Acceleration sensor

	Sensor base	Sensor base	Sensor base
			
Model	LT-AB-LF	LT-AB-HF	LT-AB-M
Material	Steel(SS41)	Steel(SS41)	Magnetic
Size	50*30*10mm	30*20*10mm	25*10*4mm
Weight	105g	45g	10g
Magnetism	-	-	5000 gauss
			
Feature	Rounded bottom side for attaching motor and rotary machine.	Rounded bottom side for attaching motor and rotary machine.	Easy to attach and move with magnetic base
Application	 Low frequency acceleration sensor + base	 High frequency acceleration sensor + base	

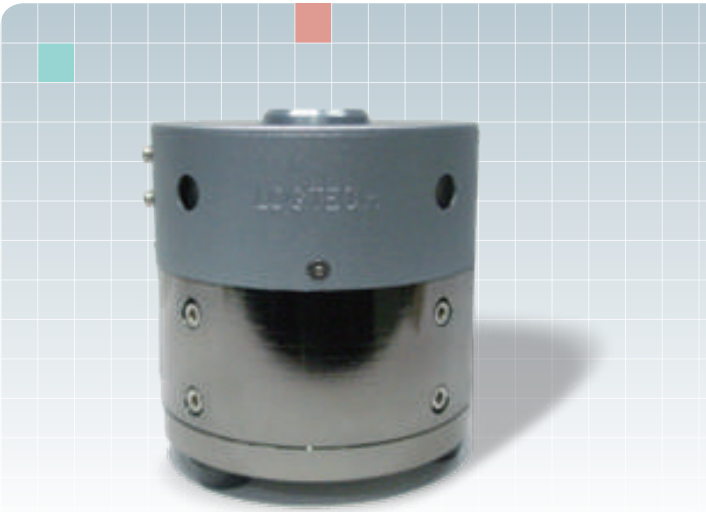
	Flexible tube	Junction box	Sensor protection box
			
Model	LT-AP-LF	LT-AB-HF	LT-AB-M
Material	Plastic	Steel	Steel
Size	External Φ10, internal Φ8	Φ90 * 42 mm	160*160*110mm
Weight	300g	405g	2kg
length	3m	-	-
Feature	Acceleration sensor cable protection and insulation	Connecting the sensor cable with another cable	Sensor protection
Application	 Connecting to acceleration sensor	Connecting to acceleration sensor	 Acceleration sensor in Sensor protection box

	Temperature sensor	Humidity sensor	RS-232C cable
			
Model	LT-T01-001	LT-8000RF3	LT-8000-RS2-C3
Precision	±1℃	±3%RH or ±5%RH	-
Case material	Plastic	ABS	-
length	3m	3m	3m
weight	500g (20ea)	110g (without case)	160g
Feature	Temperature sensor for Wireless Data Logger LT-8500	Humidity sensor for Wireless Data Logger LT-8500	-For Data Logger LT-8000 -Connectable to PC
Related Product			



[ 01 LT-EX01 ] Series

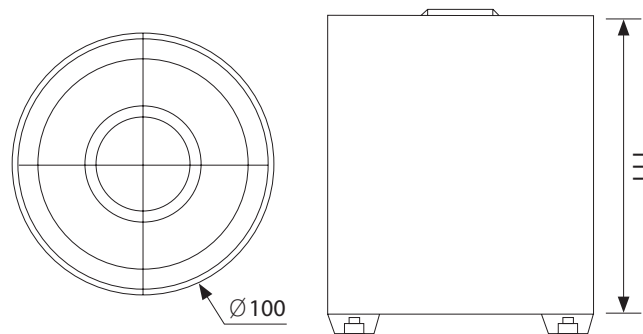
Vibration Excitor



APPLICATION

- Accelerometer calibration
- Vibration testing of small objects
- Mechanical impedance and mobility measurements
- Experimental modal analysis

Outline Dimensions



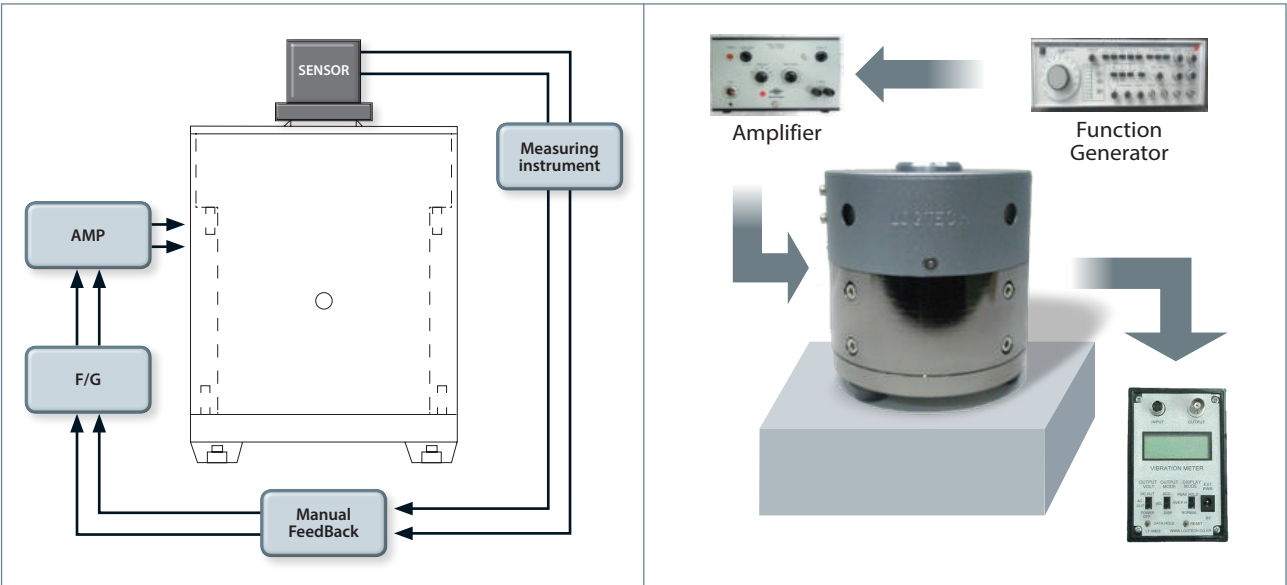
FEATURES

- Electro Magnetic type
- Force rating 20G sine peak
- Frequency range : 20 Hz ~ 5 kHz
- Robust rectilinear guidance system
- Low cross motion and low distortion

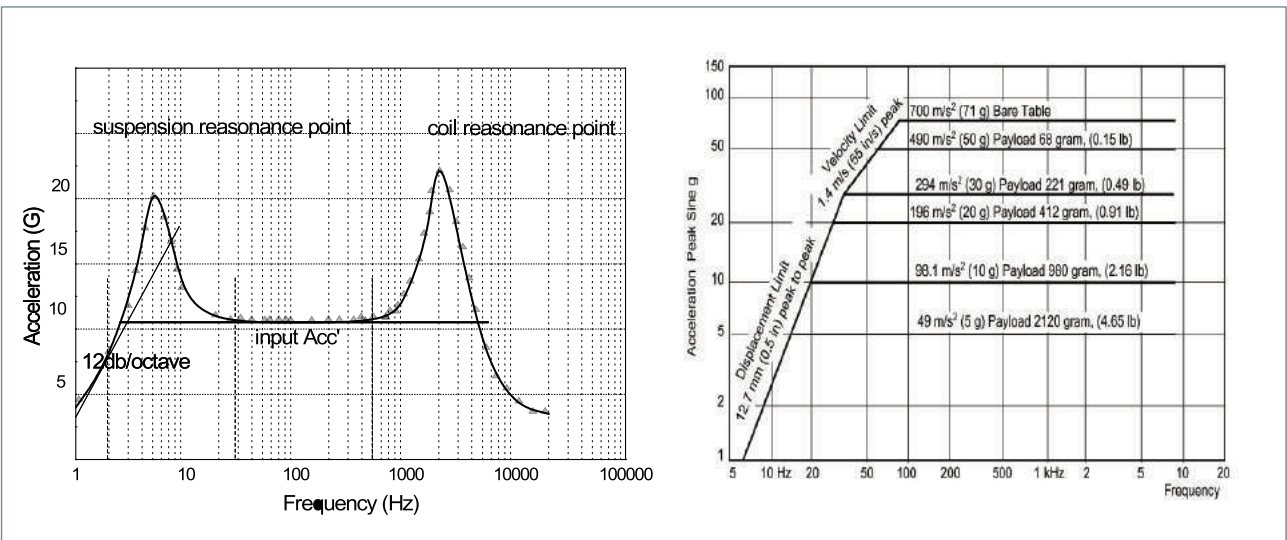
Specifications

Measurement Range	20G (peak)
Frequency Range	20 to 5 kHz
Linearity	< 0.2 % FS
Excitation Voltage	DC 9~ 24V, 5A
Input type	Connecting type
Case Size	Φ100 * 117 mm
Weight	Approx. 3 kg
Shock Limit	1000G
Environmental Temperature Range	- 40 ~ + 80 °C

System organization



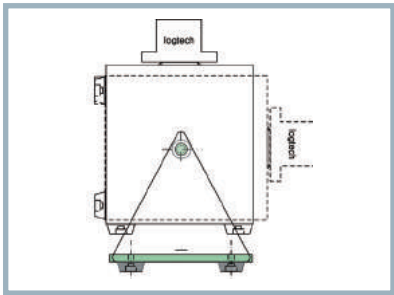
Characteristics



Related Other Products



[LT-VC01]  
Exciter Controller  
Function generator & amp

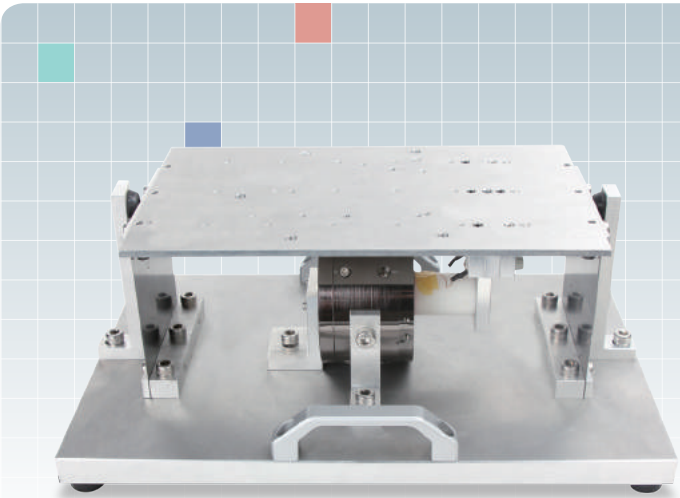


Support Fixture



[ 01 LT-EX02 ] Series

Vibration Excitor



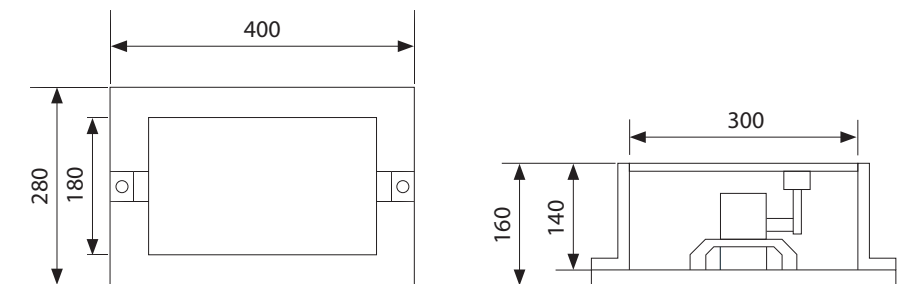
APPLICATION

- Accelerometer calibration
- Vibration testing of small objects
- Mechanical impedance and mobility measurements
- Experimental modal analysis

FEATURES

- Horizontal type Exciter
- Electro Magnetic type
- Force rating 0.5G sine peak
- Frequency range : 0 ~ 50Hz
- Robust rectilinear guidance system
- Low cross motion and low distortion

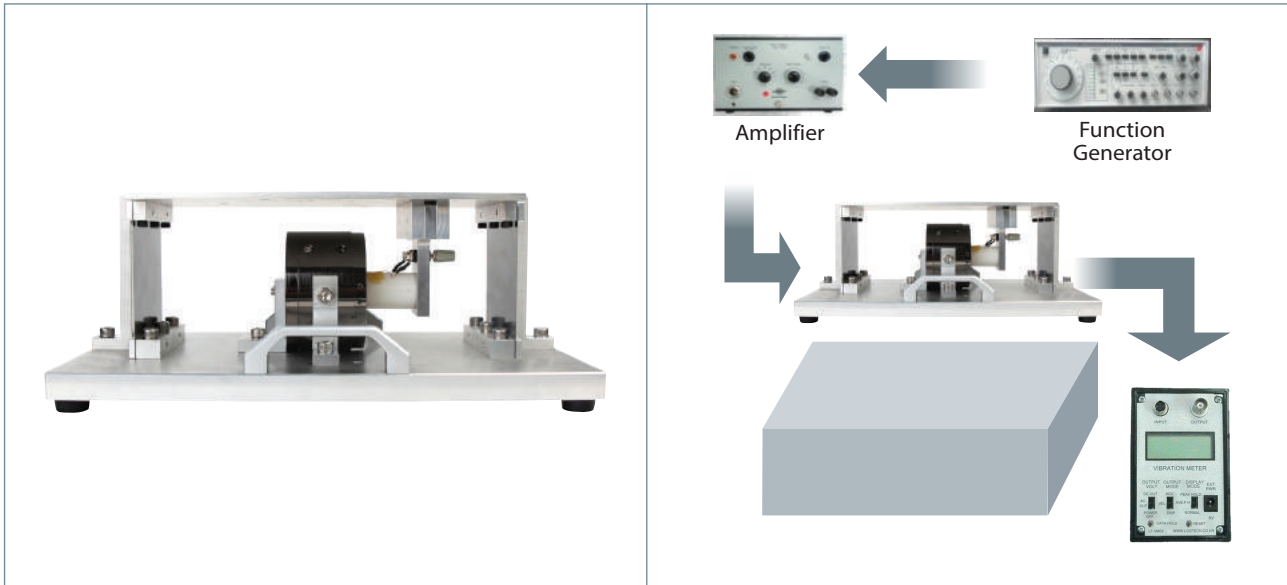
Outline Dimensions



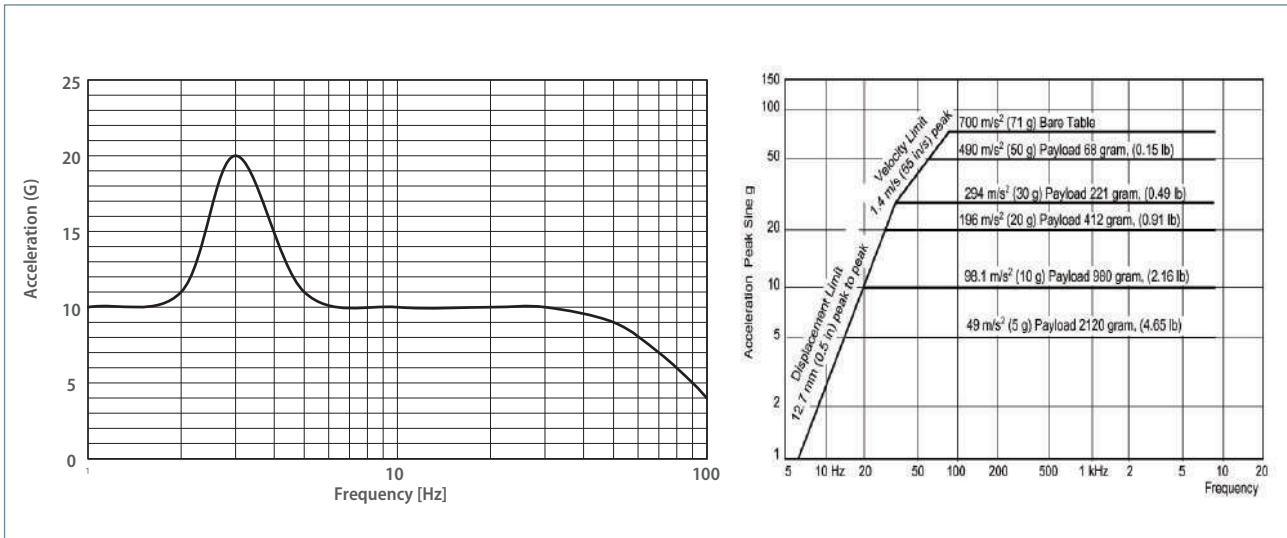
Specifications

Measurement Range	0.5G (peak)
Frequency Range	1 to 50Hz
Linearity	< 0.2 % FS
Excitation Voltage	DC 9~ 24V, 5A
Input type	Connecting type
Case Material	SS41
Case Size	400* 260 mm
Weight	Approx. 3 kg
Shock Limit	1000G
Environmental Temperature Range	- 40 ~ + 80 °C

System organization



Characteristics



Related Other Products



[LT-VC01]  
Exciter Controller  
Function generator & amp



[ LT-EVS01 ] Series

Vibration Simulator for Professional Maintenance Training

- ▶ Innovative tool to study the signatures of common machinery faults without compromising production schedule or profits.
- ▶ Components is machined to high tolerances so it can be operated without conflicting vibration.
- ▶ Various faults can be introduced either individually or jointly in a totally controlled environment, making the LT-EVS the best tool available for learning machinery diagnosis.
- ▶ Gain an in-depth understanding of different vibration signatures, controlled experiments on a device that emulates real world machinery are needed.



APPLICATION

- Balance training
- Shaft alignment training
- Alignment system assessment
- Coupling studies
- Bearing faults and load effects
- “Cocked” rotor
- Eccentric rotor
- Resonance studies
- Sleeve bearing studies
- Mechanical rub
- Foundation studies
- Signal processing techniques
- Bent shaft
- Variable speed / load effects
- Rotor dynamics
- Operating deflection shape
- Operating vibration training
- Analyst certification

FEATURES

- Simple methods for introducing controlled and calibrated faults.
- Study the vibration spectra of common faults, learn fault signatures and validate rules provided in training courses.
- Bench top machine for hands-on training and skill sharpening.
- Learn machine condition monitoring and predictive maintenance.
- Manual with exercises for individually paced study.
- Learn resonance and variable speed diagnostics.
- Learn to determine vibration transmission path and perform root cause analysis.
- Validate balancing procedures above and below the first critical resonance.

Specifications

Electrical	
Motor	3 Phase, 1/2 HP motor, pre-wired self-aligning mounting system for easy installation / removal
Drive	1/2 HP variable frequency AC drive with multi-featured front panel programmable controller
RPM range	0 to 6,000 rpm (short duration) variable speed
Current Measurement	Power leads accessible for current measurements
Tachometer	Built-in tachometer with LED display and one pulse per revolution analog TTL output for DAQ Purposes
Voltage	115/230 VAC, Single phase, 60/50Hz
Mechanical	
Shaft Diameter	5/8" diameter, Turned, Ground & Polished (TGP) steel
Bearing	Two sealed rolling element in aluminum horizontally split bracket housing for easy changes, tapped for transducer mount Bearing mounts can be mounted in five different position for variable rotor span
Rotor Base	15" long, completely movable using jack bolts for easy horizontal misalignment and standard shims for vertical misalignment
Rotors	Two 6" aluminum with 36 threaded holes at 10 degree intervals for introducing unbalance
Safety Cover	Lockable clear, impact resistant hinged plastic cover with motor interlock switch to shut down motor is raised
Voltage	1/2" (12.7mm) die cast aluminum base, base stiffener and six rubber isolators
Physical	
Weight	Approximately 100lb (45kg)
Diamensions	L=32" (83cm), W=16" (42cm), H=40" (102cm)

Option Kits

LT-EVS offers a complete array of option kits enabling detailed investigations of particular and more advance vibration phenomena or machinery faults.

- |   |  |
|---|--|
| <ul style="list-style-type: none"><li>• Training curriculum manual</li><li>• Eccentric rotor</li><li>• Cocked rotor</li><li>• Coupling type set</li><li>• Centrally bent rotor shaft for balance studies</li><li>• Coupling-end bent rotor shaft for alignment studies</li><li>• Rolling bearing resonance / critical study kit</li><li>• Sleeve bearing resonance study kit</li><li>• 5/8" shaft bearing fault kit</li><li>• 5/8" shaft bearing loader</li><li>• 1" shaft bearing study kit</li><li>• 1" shaft bearing fault kit</li></ul> | <ul style="list-style-type: none"><li>• 1" shaft bearing loader</li><li>• Cocked bearing housing</li><li>• 5/8" shaft sleeve bearing (grease lubricated) kit</li><li>• Mechanical rub kit</li><li>• Damped bearing housing kit</li><li>• Crack shaft study kit</li><li>• Fan vibration kit</li><li>• PC motor control kit</li><li>• Shaft alignment kit</li><li>• Vertical and horizontal bearing force transducer for 1/2" to 1" shafts</li></ul> |
|---|--|

Ordering Information

LT – EVS – 

OP				
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Optional kit model no.



[ LT-EVS02 ] Series

Vibration Simulator for Customer orders

- ▶ We provides the system to simulate the abnormal condition of the equipment.
- ▶ Components is machined to high tolerances so it can be operated without conflicting vibration.
- ▶ Various faults can be introduced either individually or jointly in a totally controlled environment, making the LT-EVS the best tool available for learning machinery diagnosis.
- ▶ Gain an in-depth understanding of different vibration signatures, controlled experiments on a device that emulates real world machinery are needed.



APPLICATION

- Balance training
- Shaft alignment training
- Alignment system assessment
- Coupling studies
- Bearing faults and load effects
- “Cocked” rotor
- Eccentric rotor
- Resonance studies
- Sleeve bearing studies
- Mechanical rub
- Foundation studies
- Signal processing techniques
- Bent shaft
- Variable speed / load effects
- Rotor dynamics
- Operating deflection shape
- Operating vibration training
- Analyst certification

FEATURES

- Providing the three steps of safety measures, vacuum condition and convenient carrying and fixing.
- Study the vibration spectra of common faults, learn fault signatures and validate rules provided in training courses.
- Bench top machine for hands-on training and skill sharpening.
- Learn machine condition monitoring and predictive maintenance.
- Manual with exercises for individually paced study.
- Learn resonance and variable speed diagnostics.
- Learn to determine vibration transmission path and perform root cause analysis.
- Validate balancing procedures above and below the first critical resonance.
- Belt simulation
- Piston simulation
- Available decelerator

Specifications

Electrical	
Motor	3 Phase, 1/2 HP motor, pre-wired self-aligning mounting system for easy installation / removal
Drive	1/2 HP variable frequency AC drive with multi-featured front panel programmable controller
RPM range	0 to 6,000 rpm (short duration) variable speed
Current Measurement	Power leads accessible for current measurements
Tachometer	Built-in tachometer with LED display and one pulse per revolution analog TTL output for DAQ Purposes
Voltage	115/230 VAC, Single phase, 60/50Hz
Mechanical	
Shaft Diameter	5/8" diameter, Turned, Ground & Polished (TGP) steel
Bearing	Two sealed rolling element in aluminum horizontally split bracket housing for easy changes, tapped for transducer mount Bearing mounts can be mounted in five different position for variable rotor span
Rotor Base	15" long, completely movable using jack bolts for easy horizontal misalignment and standard shims for vertical misalignment
Rotors	Two 6" aluminum with 36 threaded holes at 10 degree intervals for introducing unbalance
Safety Cover	Lockable clear, impact resistant hinged plastic cover with motor interlock switch to shut down motor is raised
Voltage	1/2" (12.7mm) die cast aluminum base, base stiffener and six rubber isolators
Physical	
Weight	Approximately 100lb (45kg)
Diamensions	L=32" (83cm), W=16" (42cm), H=40" (102cm)

Option Kits

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- |   |  |
|---|--|
| <ul style="list-style-type: none"><li>• Training curriculum manual</li><li>• Eccentric rotor</li><li>• Cocked rotor</li><li>• Coupling type set</li><li>• Centrally bent rotor shaft for balance studies</li><li>• Coupling-end bent rotor shaft for alignment studies</li><li>• Rolling bearing resonance / critical study kit</li><li>• Sleeve bearing resonance study kit</li><li>• 5/8" shaft bearing fault kit</li><li>• 5/8" shaft bearing loader</li><li>• 1" shaft bearing study kit</li><li>• 1" shaft bearing fault kit</li></ul> | <ul style="list-style-type: none"><li>• 1" shaft bearing loader</li><li>• Cocked bearing housing</li><li>• 5/8" shaft sleeve bearing (grease lubricated) kit</li><li>• Mechanical rub kit</li><li>• Damped bearing housing kit</li><li>• Crack shaft study kit</li><li>• Fan vibration kit</li><li>• PC motor control kit</li><li>• Shaft alignment kit</li><li>• Vertical and horizontal bearing force transducer for 1/2" to 1" shafts</li></ul> |
|---|--|

Ordering Information

LT – EVS – OP –  –

Optional kit model no.



[ LT-HIME ]

Wireless Head Impact Measure Equipment

- ▶ Events Direct-write to PC using Bluetooth and the cable is not necessary.
- ▶ The LT- HIME (Head Impact Measure Equipment) is a portable headform with a built-in acceleration data logger designed specifically for field-testing of playground and recreational surfaces.
- ▶ LT-HIME is easy to use and captures all impact data in a detailed time history that can be viewed and compiled into custom surface reports..
- ▶ Intuitive, easy-to-use and post-processing options including ASTM/EN-compliant filters, GMax values and Head Injury Criterion (HIC)
- ▶ EN 1177 for Impact Attenuating Playground Surfacing: Determination of Critical Fall Height



- The LT-HIME features a built-in shock data logger with XYZ accelerometers.
- Easy set-up and no wires or cables make testing reliable and repeatable every time.
- Designed for field testing playground surfaces, HIC date and time stamps each event, and instantly synchronized with the PC

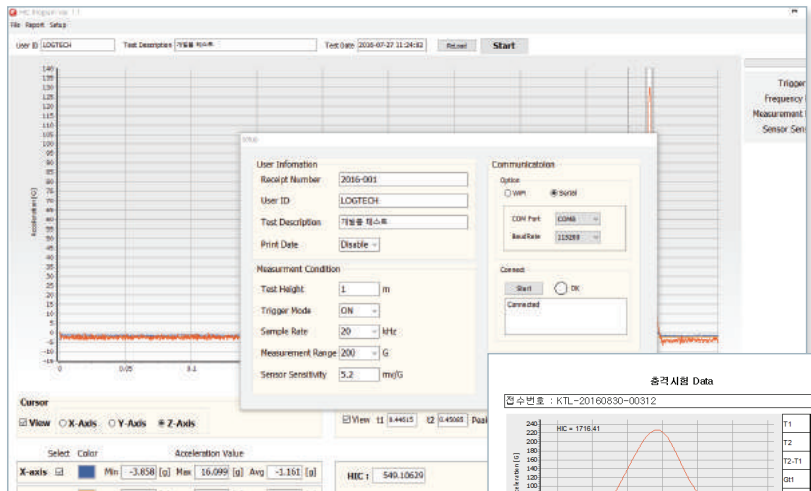
APPLICATION

- Biomechanics
- Impact testing
- Playground testing
- Sports & safety equipment
- Surface testing

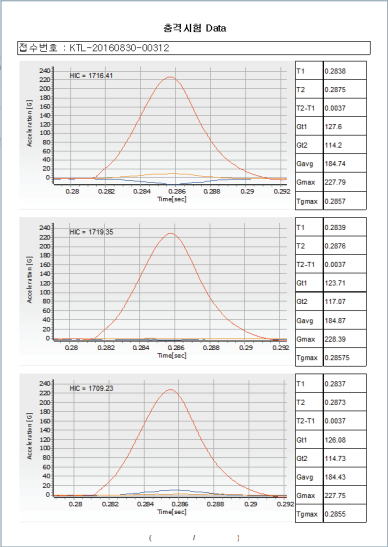
FEATURES

- Events Direct-write to PC using Bluetooth and the cable is not necessary.
- USB rechargeable
- Simple, easy-to-use
- No cables or wires, portable rugged design
- Sensor range:  $\pm 250$  g,  $\pm 500$  g, 2500 g survivable
- Logs date and time for each event

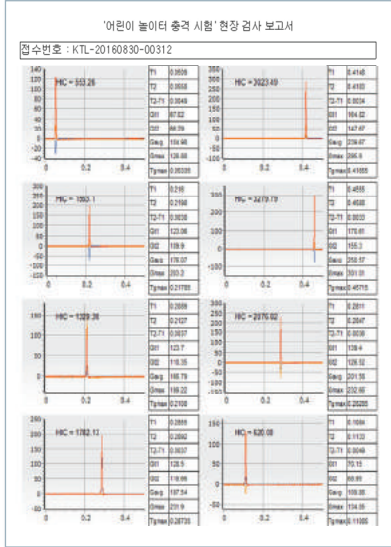
Software



LT-HIME S/W



Preview



Reports

Specifications

LT - HIME	
Rated Voltage	DC 3.7V/1,600mAh * 2 (Li-Po Battery, The inner parts of Dummy Header) 5V (Charging Rated Voltage)
Current Consumption	Stand by : 10~20mA In communication : 100~300mA Max, About 50~100mA
Charger Specification	Out power: 5V 100mA USB charging Type
Usage Time	Stand by: 80hour In use: 16hour Max
Operating Temperature	0 to 60 C°
Wireless Transmit Power	18dBm Max
Wireless Transmit Sensitivity	-90 dBm(0.1% BER)
Wireless Transmit Length	About 100m

Measuring Range	250g Max, 500g Max,
Material	Aluminum, Plastic
Size	207(H) x 160(D) mm
Weight	4.6kg( $\pm 0.05$ )

LT-HIME SW operating pc specification	
CPU	2.0 GHz or faster processor
Memory	2 GB or more of RAM
Hard Drive	100 GB or more of space
Wireless	Bluetooth
Operating System	Windows compatible