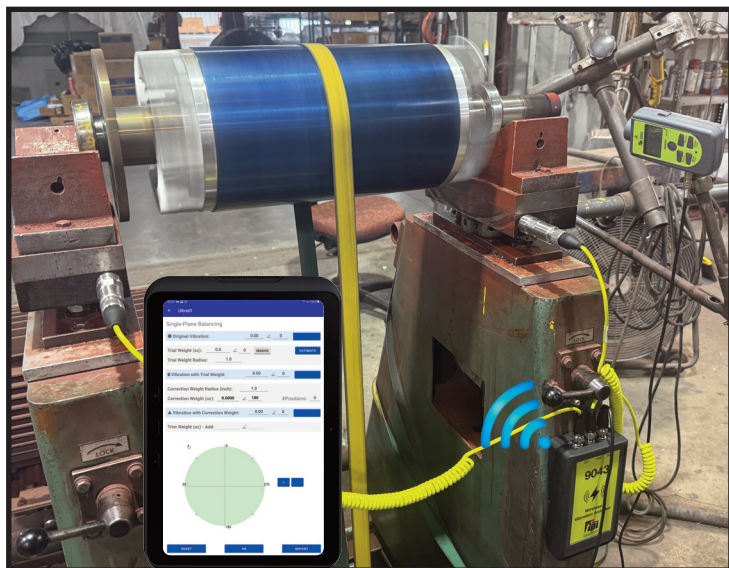




# Condition Based Monitoring

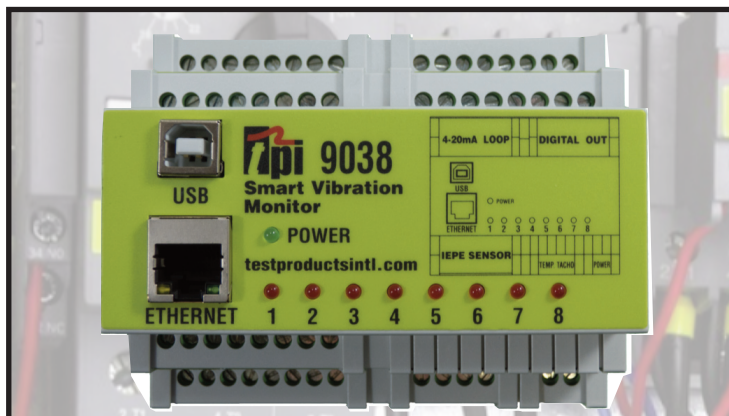
Intelligent tools to monitor, analyse & interpret vibration, bearing condition, temperature and overall machine health.



**Intelligent Vibration Analysers Analyse • Interpret • Save**

Condition based maintenance (CBM) is not just a technique for avoiding breakdowns. By identifying faults such as out of balance, misalignment, worn bearings etc. you can significantly reduce operating costs:

- Lower energy costs (out of balance and misaligned machines need a lot more unnecessary energy)
- Prolong component lifetimes (e.g. by reducing bearing wear)
- Lower repair costs (replacing worn bearings before they fail is a lot cheaper and much safer!)
- Reduce downtime (increase profitability)



## Smart Vibration Monitor 9034 & 9038 Online/Fixed Vibration Monitoring.

Multi-channel low-cost unit monitors plant with local alarms, connects to high functionality PC analysis software AND connects to cloud-based monitoring and analysis software.

Extremely cost effective: lowest "cost per channel" industrial vibration monitor/analyser.

**tpieurope.com**

**+44 (0) 1293 530196**

TPI Europe v05.25\_p

**MEASURE • MANAGE**

**Solutions for Pumps, Fans & Motors**

## Test Products International (TPI) Europe Ltd

part of **Test Products International Inc.** are manufacturers and suppliers of a vast range of quality hand-held test and measurement instruments for Domestic & Commercial/Industrial applications, with over 100 products in the range including Flue Gas Analysers, Gas Leak Detectors, Digital Manometers, Multi-Meters, Temperature Measurement, IAQ and Industrial Vibration Meters.

TPI are equipped to provide the right product at the right price with continuous on-going support for years to come.

Excellent prices, dedicated after sales support and low calibration costs set TPI apart from their competitors.

- In-House industry & legislative driven innovative design
- 100+ products covering a vast array of applications
- UK based life-long service & back-up support
- Robust & reliable products
- Minimum 1 year warranty - up to 12 years on the
- Excellent customer & distributor support
- Suppliers to large Blue Chip companies



trusted and relied upon, around the world, by class leading organisations.





## If you have Pumps, Fans and Motors you need TPI Vibration Analysers!

- Traditionally, vibration analysis has been a specialist field and typically performed by vibration consultants using very expensive equipment.
- Vibration analysers from TPI allow anyone to perform meaningful vibration analysis at an unexpectedly low cost.
- Easily and affordably detect worn bearings, faulty gearboxes, unbalance, misalignment and looseness.
- Identify the vibration problem: 2/10Hz to 1kHz for a clearer understanding of unbalance, misalignment or looseness
- 1kHz to 10kHz covers the Bearing Condition to identify bearing wear, damage, lubrication issues etc.
- Identify complex issues: 800-line spectrum with zoom and cursor.
- By detecting early signs of machine failure, machinery can be repaired or replaced before an expensive breakdown occurs.



### Pumps

This style pump can have bearing problems or balancing issues. The motor is bolted directly to the pump and does not normally have alignment issues.



### Motors

The motor and pump are bolted to the frame and attached with a coupling. This can present bearing problems in the motor and pump, balancing issues due to damaged impellers, and also shaft misalignment between the two.



### Fans

Fans can also have bearing and balancing problems. A fan can be out of balance due to damage, dirt, or thrown weight. A bent shaft will also create a balance issue.

### 9070 Vibration & Bearing Condition Analyser: analysis simply at the touch of a button!

TPI 9070 analyses & interprets readings:

- ISO machine alarms and Bearing Damage Units (BDU) reading indicate overall machine and bearing condition
- Clear picture of 1X, 2X & 3X machine problems detects imbalance, misalignment and looseness
- 800-line spectrum with zoom and cursor to identify complex issues



### 9071 Intelligent Vibration & Bearing Condition Analyser with BNC cabled accelerometer with magnet for consistent readings

TPI 9071 analyses, interprets, and stores readings.

#### Everything the 9070 can do plus:

- BNC cabled accelerometer with magnet for hard to reach test points and repeatable results
- Collect and store readings; 10 memory blocks with 20 readings per block for a total storage of 200 readings.
- Stored data is easily recalled and displayed.



### 9070 & 9071 Intelligent Vibration & Bearing Condition Analysers

Attach industry standard magnet (optional A9073 on the 9070) with 1/4"x28 thread. Provides faster, more reliable and repeatable readings.

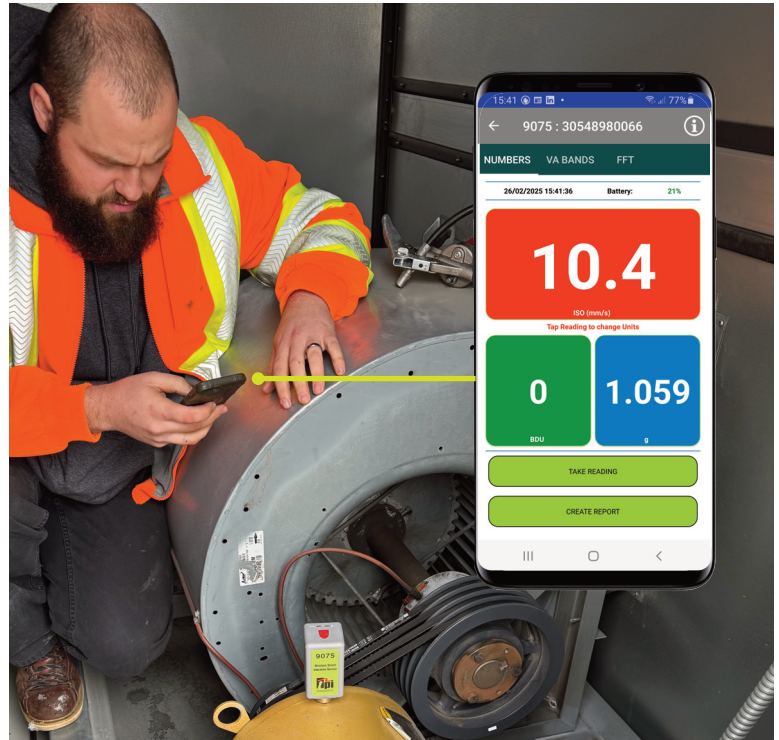
- Built to last: rugged, reliable, IP67 waterproof, long battery life.

Not only does the rugged design and waterproof case keep the 9070 & 9071 working in demanding environments, but advanced technology ensures a long battery life - with 1,500 measurements

#### 9070, 9071: 3 Year Limited Warranty



Clear picture of:  
1X, Unbalance  
2X, Misalignment  
3X, Looseness



**Small but Mighty Performance 🚀 - 3 Year Limited Warranty**

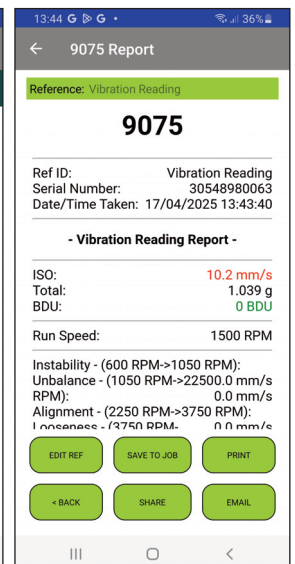
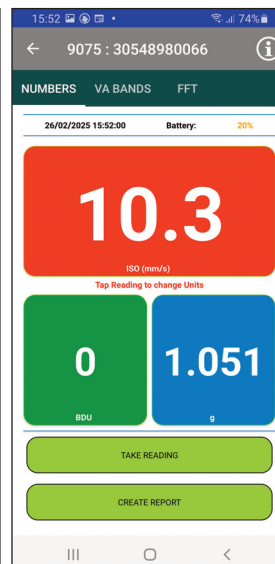
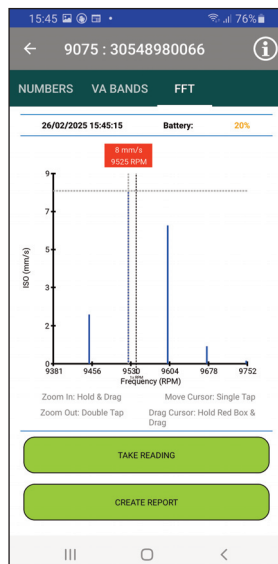
**The 9075 Wireless Accelerometer has Big Capabilities:**

- Remote Vibration Readings with the Free View App (see below)
- Identify the vibration problem: unbalance, misalignment or looseness; in addition to the bearing condition
- Place the sensor on the asset, potentially behind a safety gate, up a height or hard to reach areas, then stand back and see the readings in the palm of your hand.
- Overall machine and bearing conditions: vibration values are displayed with colour-coded alarm levels for ISO values and Bearing Damage (BDU).
- Identify complex issues: 800-line spectrum with zoom and cursor.
- View Readings as ISO, BDU, Displacement and Total (g)
- View the FFT, VA Bands, & Time Waveform
- Create reports & share them using e-mail, or file sharing such as OneDrive, Google Drive, Dropbox etc....
- Wireless Charging
- Upgrade Kits available to buy with Android Tablet running the TPI Ultra App or C-Trend Software Including Trending, Global Connectivity and much more!

## TPI View App



**Scan the code,  
get the FREE App**





## 9075 Wireless Accelerometer Specifications

Max Frequency & Resolution	10kHz Fmax and 51,200 lines
A/D Converter	24 bit A/D
Measurement Range	2/10Hz to 1kHz ISO standard for assessing Unbalance, Misalignment or Looseness 1kHz to 10kHz BDU range for identification of Bearing Condition
Sensor Connection	Bluetooth 5
Dynamic Range	108dB
Power Supply	Wireless Charging with Long Battery Life
IP Rating	IP 67
Frequency Range	2Hz to 10kHz
BDU - Bearing Noise - Frequency Range	1kHz to 10kHz
TPI View Resolution	100 to 800 lines with zoom
TPI View Screen Cursor	Single
TPI View VA Bands	Yes, Instability, Unbalance, Alignment, Looseness
TPI View FFT Display	Yes



A9073 Magnet included



Wireless Charger and Cable



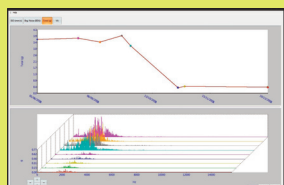
## 9080 Intelligent Trending Vibration & Bearing Condition Analyser.....with various kit options available (see Page 5)

Analyses, Interprets and TRENDS Machine Condition

- Identify the vibration problem: 2/10Hz to 1kHz for a clearer understanding of unbalance, misalignment or looseness
- Vibration values are displayed with color coded alarm levels for ISO values
- User settable Alarm Levels for easy identification of the bearing condition displayed as a BDU (Bearing Damage Unit) value
- 1kHz to 10kHz covers the Bearing Condition to identify bearing wear, damage, lubrication issues etc.
- Identify complex issues: 800-line spectrum with zoom and cursor.
- Load up routes for operatives to follow and trend lines show problems before they happen when using the accompanying VibTrend PC Software



**VibTrend PC Software** - Supplied as Standard with 9080 Kits  
with NO ongoing subscription fees  
See Pages 16 & 17 for more details



Store, analyse and report on all your vibration parameters in one place  
Create Routes for operatives to follow for easy vibration point & machine identification then send out e-mail notifications automatically once docked



## 9080-Standard Includes:

A9018 accelerometer, curly cable & magnet  
A9081A USB docking cradle in the  
A9087 carrying case  
with VibTrend Standard PC software (up to 10 assets with 10 measurement points per asset) WITHOUT any ongoing subscription fees

## 9080-Pro: As 9080-Standard PLUS

A9084 VibTrend Pro Unlimited PC software  
(up to 1,000 assets with 10 measurement points per asset)  
WITHOUT any ongoing subscription fees



## 9080-Plus: As 9080-Pro

### PLUS

A9086 protective boot,  
A9082 tachometer strobe, &  
A9072 100mm extended stinger  
includes:  
A9084 VibTrend Pro Unlimited PC software  
(up to 1,000 assets with 10 measurement points per asset)  
WITHOUT any ongoing subscription fees



## 9080K1: As 9080-Pro

### PLUS

A9086 protective boot,  
A9082 tachometer strobe,  
includes:  
A9084 VibTrend Pro Unlimited PC software  
(up to 1,000 assets with 10 measurement points per asset)  
WITHOUT any ongoing subscription fees



## 9080K2: As 9080K1

### PLUS

A9080 Industry approved Bluetooth Ear Defenders  
A9088 Carry Pouch for A9080 Bluetooth Ear Defenders  
includes:

A9084 VibTrend Pro Unlimited PC software  
(up to 1,000 assets with 10 measurement points per asset)  
WITHOUT any ongoing subscription fees





## 9080-Ex Intrinsically Safe Intelligent Trending Vibration & Bearing Condition Analyser.....

### Analyses, Interprets and TRENDS Machine Condition

#### BENEFITS

- Find machine faults before they stop your machine
- Increase productivity and lower maintenance costs

#### FEATURES

- Collect data
- Trend data using VibTrend software
- Intrinsically Safe cable mounted accelerometer with magnet
- Built-in Bluetooth communication capability
- USB docking station to download to a PC
- ISO built-in Alarms
- Easily identify bearing problems with BDU Reading
- Easily identify problems with built-in band filters:
  - 1X (unbalance)
  - 2X (misalignment)
  - 3X (looseness)
- 800 line FFT (spectrum)
- Ruggedized IP67 case
- 1-year Limited Warranty

#### PUT THE TPI 9080-Ex TO WORK:

Commercial & Industrial HVAC  
Food Processing  
Manufacturing  
Mining  
Packaging  
Petrochemical  
Pulp and Paper  
Power Plants  
Utilities  
Automotive

**VibTrend Pro PC Software Included as Standard**



**Intrinsically Safe**  
**IEC Ex/ATEX**  
**Ex ib IIC T4 Gb**  
**(-20°C ≤ Ta ≤ +40°C)**

**Identify the vibration problem: unbalance, misalignment or looseness; in addition to the bearing condition**

**Intrinsically Safe**

**Certificate Numbers: IECEx BAS 16. 0131X Baseefa 16ATEX0182X**



## 9084 Intelligent Trending Analyser..... Analyses, Interprets and TRENDS Machine Condition.....including Bearing Condition with **Wireless Charging**

### BENEFITS

- Find machine faults before they stop your machine
- Increase productivity and lower maintenance costs

### FEATURES

- Collect vibration data
- Trend data using VibTrend PC software
- Standard Cable mounted accelerometer with magnet
- USB docking station or Bluetooth download to a PC
- ISO built-in Alarms
- Easily identify bearing problems with BDU (Bearing Damage Unit) Reading
- Easily identify problems with built-in band filters:
  - 1X (unbalance)
  - 2X (misalignment)
  - 3X (looseness)
- 800 line FFT (spectrum)
- Wireless charging
- Ruggedized IP67 case
- 3-year Limited Warranty



## 9085 As 9084.....

### PLUS

## Instantaneous Temperature

### BENEFITS

- Find machine faults before they stop your machine
- Increase productivity and lower maintenance costs
- Measure temperature to determine if a bearing requires lubrication, preventing wear and failure.
- Use temperature measurement to confirm a high BDU reading (bearing noise) is caused by a worn bearing and not noise from pump cavitation, gearbox noise, or a nearby noisy bearing.
- Temperature measurement aids in diagnosing a tight or loose housing or shaft fit on a bearing.
- Measuring temperature assists with potential electrical issues on motors such as winding insulation deterioration, single phasing, broken rotor bars etc.
- Magnet built into accelerometer for better repeatability of Vibration & Temperature Readings.



**BOTH models supplied with VibTrend PC software giving you greater ease of use and flexibility.**

Store analyse and report on all your vibration & temperature parameters across all you assets in one place.

(See Pages 16 & 17 for further details)



## 9085-Ex Intelligent Trending Analyser.....

Analyses, Interprets and TRENDS Machine Condition.....including Bearing Condition & **Instantaneous Temperature** with **Wireless Charging**

### BENEFITS

- Find machine faults before they stop your machine
- Increase productivity and lower maintenance costs
- Measure temperature to determine if a bearing requires lubrication, preventing wear and failure.
- Use temperature measurement to confirm a high BDU reading (bearing noise) is caused by a worn bearing and not noise from pump cavitation, gearbox noise, or a nearby noisy bearing.
- Temperature measurement aids in diagnosing a tight or loose housing or shaft fit on a bearing.
- Measuring temperature assists with potential electrical issues on motors such as winding insulation deterioration, single phasing, broken rotor bars etc....
- Magnet built into accelerometer for better repeatability of Vibration & Temperature Readings.

### FEATURES

- Collect vibration and temperature data
- Practically instantaneous readout of actual surface temperature
- Trend data using VibTrend PC software
- Standard Cable mounted accelerometer with Built in magnet and temperature sensor
- USB docking station or Bluetooth download to a PC
- ISO built-in Alarms
- Easily identify bearing problems with BDU (Bearing Damage Unit) Reading
- Easily identify problems with built-in band filters:
  - 1X (unbalance)
  - 2X (misalignment)
  - 3X (looseness)
- 800 line FFT (spectrum)
- Wireless charging
- Ruggedized IP67 case
- 1-year Limited Warranty



**Supplied with VibTrend PC software giving you greater ease of use and flexibility.**

Store analyse and report on all your vibration & temperature parameters across all you assets in one place.

(See Pages 16 & 17 for further details)



II 1G Ex ia IIC T4 Ga (-20°C≤Ta≤+40°C)  
Class 1, Zone 0, IIC T4 (-20°C≤Ta≤+40°C)  
AEx ia IIC T4 Ga (-20°C≤Ta≤+40°C)  
Class 1, Division 1, Groups A-D, T4 (-20°C≤Ta≤+40°C)

	9070	9071	9075	9080 Std	9080 Pro	9080 Plus	9080K1	9080K2	9084	9085
Display Type	OLED	OLED	Screenless & uses App	OLED	OLED	OLED	OLED	OLED	OLED	OLED
Storage Case Type Supplied	Nylon Belt Pouch	Nylon Belt Pouch	None	Padded Carrycase	Padded Carrycase	Padded Carrycase	Padded Carrycase	Padded Carrycase	Padded Carrycase	Padded Carrycase
IP Rating	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67	IP67
Embedded Accelerometer	Yes	No	Yes	No	No	No	No	No	No	No
Standard 100mV/g IPEE Accel with BNC connector	No	Yes	No	Yes	Yes	Yes	Yes	Yes	No	No
Low power 30mV/g Accel with 5 Pin MS connector	No	No	No	No	No	No	No	No	Yes	Yes
Instantaneous Temperature	No	No	No	No	No	No	No	No	No	Yes
800 - Line FFT	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ISO standard Colour coded Unbalance, Misalignment & Looseness	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bearing Damage Units (BDU) with user settable alarm levels	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Overall 'g' value	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
"AA" Battery powered	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	No
Wireless rechargeable battery with Charging Pad	No	No	Yes	No	No	No	No	No	Yes	Yes
Magnet attachment for accelerometer	Opt	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Magnet built into accelerometer	No	No	No	No	No	No	No	No	No	Yes
Extended 100mm Stinger attachment	Opt	Opt	Opt	Opt	Opt	Yes	Opt	Opt	Opt	No
1/4" Stud attachment capability	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Protective Rubber Boot	Opt	Opt	No	Opt	Opt	Inc	Inc	Inc	Inc	Inc
Strobe attachment capability	No	No	No	Opt	Opt	Inc	Inc	Inc	No	No
Bluetooth Audio Capability (using own headphones)	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bluetooth Ear Defenders Supplied	No	No	No	Opt	Opt	Opt	Opt	Inc	Opt	Opt
Local route based data transfer to & from VibTrend PC Software	No	No	Upg	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Unlimited Asset Trending on VibTrend PC Software	No	No	Upg	Upg	Yes	Yes	Yes	Yes	Yes	Yes
Remote Databases on VibTrend PC Software	No	No	Upg	Upg	Yes	Yes	Yes	Yes	Yes	Yes
Global route based data Transfer to & from C-Trend II PC Software	No	No	Upg	Upg	Upg	Upg	Upg	Upg	Upg	Upg

EX Intrinsically Safe version Available	No	No	No	No	YES	No	No	No	No	YES
EX version Part Number					9080-Ex					9085-EX

Opt = Optional
 Upg = Upgradeable
 Inc = Included



## 9075K1 - Wireless Accelerometer Kit c/w TPI Ultra app

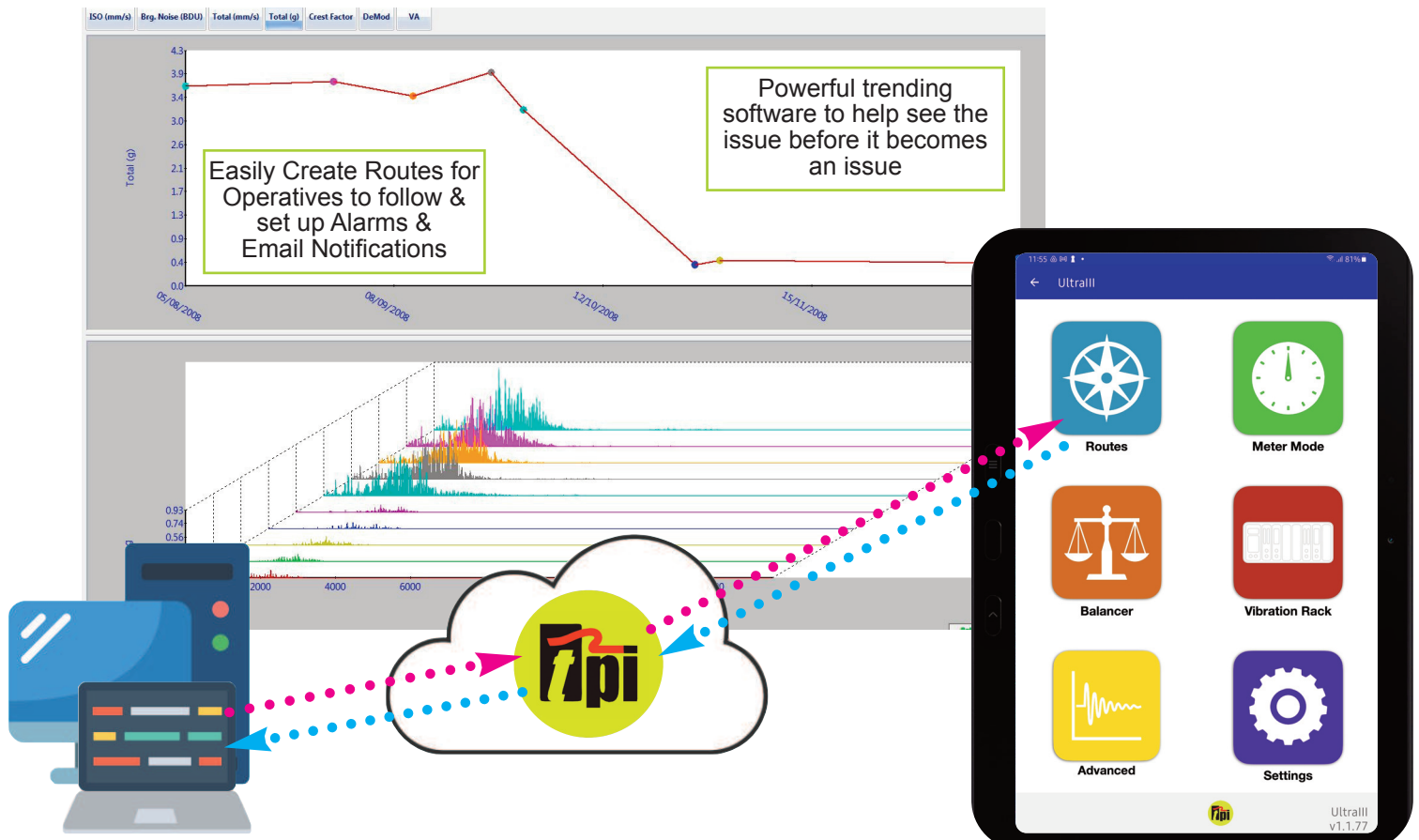
Comprising of:-

- 1 x 9075 Wireless Accelerometer & A9073 Magnet,
- 1 x Wireless Charging Puck & Cable
- 1 x Android Tablet running the TPI Ultra app, in an A905 CarryCase



- Take vibration readings, remotely from the Tablet
- View the readings as ISO, Bearing Noise (BDU), Displacement & Total (g)
- Colour coded for easy identification
- View the FFT, VA Bands, Time Waveform, DEMOD & Machine View
- Save, Store & Send the readings
- Create Reports with Notes & Images
- Single Plane - 4 Run Balancing

## 9075K2 - As 9075K1 plus C-Trend PC activation (see pages 16 & 18 for further details)



## 9075K1 - Wireless Accelerometer & TPI Ultra app Capabilities



Bottom

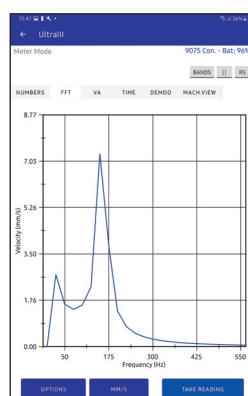
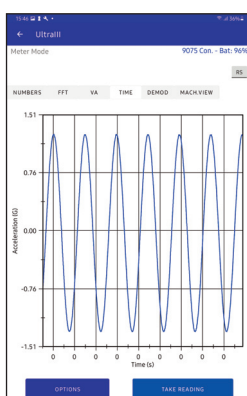
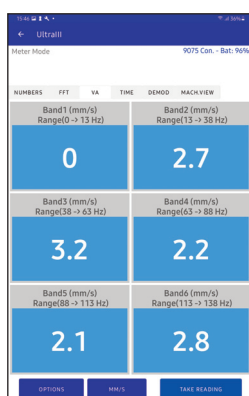
Back



A9073 Magnet included

Wireless Charger and Cable

Sampling Frequency	up to 10kHz Fmax and 51,200 lines
A/D Converter	24 bit A/D
Measurement Range	2/10Hz to 1kHz ISO standard for assessing Unbalance, Misalignment or Looseness 1kHz to 10kHz BDU range for identification of Bearing Condition
Sensor Connection	Bluetooth 5
Dynamic Range	108dB
Power Supply	Wireless Charging with Long Battery Life
IP Rating	IP67
Frequency Range	2Hz to 10kHz
BDU - Bearing Noise - Frequency Range	1kHz to 10kHz
Resolution	100 to 51,200 lines
ULTRA III Screen Cursors	Single, Harmonic, Moving Harmonic, Sideband, and Time/Frequency for waveform
ULTRA III Band Alarms	Yes
Peak to Peak Displacement	Yes
No Phase Single Plane Balancing	Yes
Balancing RPM (Range) Low Limit	120 RPM
Software to store, analyse and report vibration and inspection parameters	C-Trend PC Software:- Optional with 9075K1 Standard with 9075K2





## 9043 - Smart Wireless THREE channel Vibration & Bearing Wear Analyser & Data Collector



- Wireless or USB-C Charging
- Wireless communication to Android Tablet allowing readings to be viewed from a safe distance with analyser behind safety barrier
- True simultaneous 3 channel capture used for 2 Plane Balancing and Phase & Orbit features
- Standard BNC connectors
- Rugged design - IP67 rating
- Compatible with Triaxial Accelerometer
- Compatible with Proximity Probes
- Data transfer by USB-C where Bluetooth is not permitted
- Supplied in protective, magnetic, rubber boot for hands free use.
- 24 bit A/D Converter
- DC to 30kHz Frequency Range
- 100 to 51,200 Line Resolution
- 108dB Dynamic Range

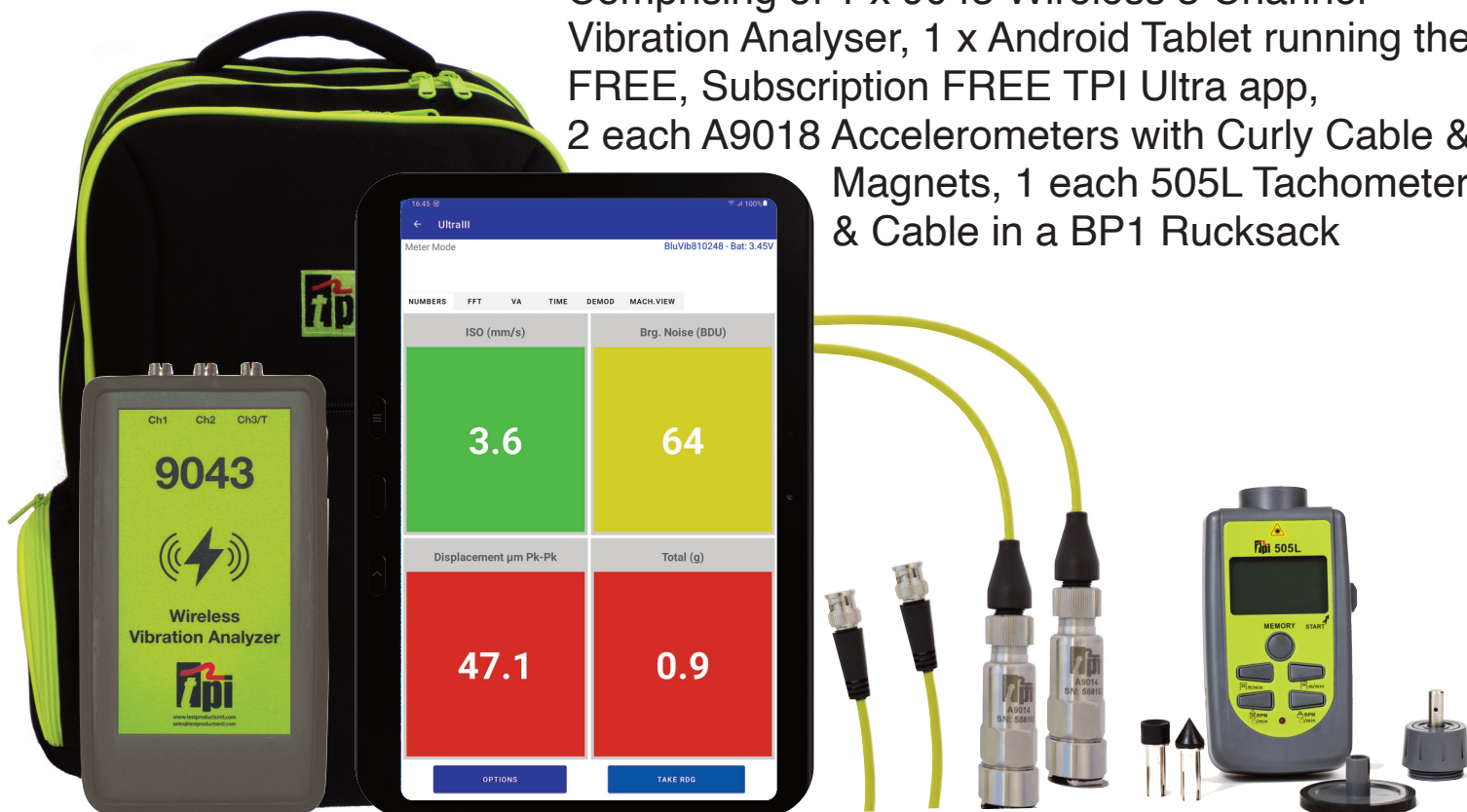
### Works with the FREE, subscription FREE TPI Ultra Android Tablet app

- 2/10Hz to 1kHz ISO standard for assessing Unbalance, Misalignment or Looseness
- 1kHz to 10kHz BDU range for identification of Bearing Condition
- High resolution (0.2 Hz) frequency spectra from 2 Hz to 10 kHz
- Single & Dual Plane Balancing
- No tachometer (4-run) Balancing
- Screen Cursors - Single, Harmonic, Moving Harmonic, Sideband, and Time/Frequency for waveform
- DEMOD & Coast Down
- Phase & Orbit Plots
- Gap Voltage Display
- Download Routes with Inspection points
- Clear, easy-to-read and navigate touchscreen

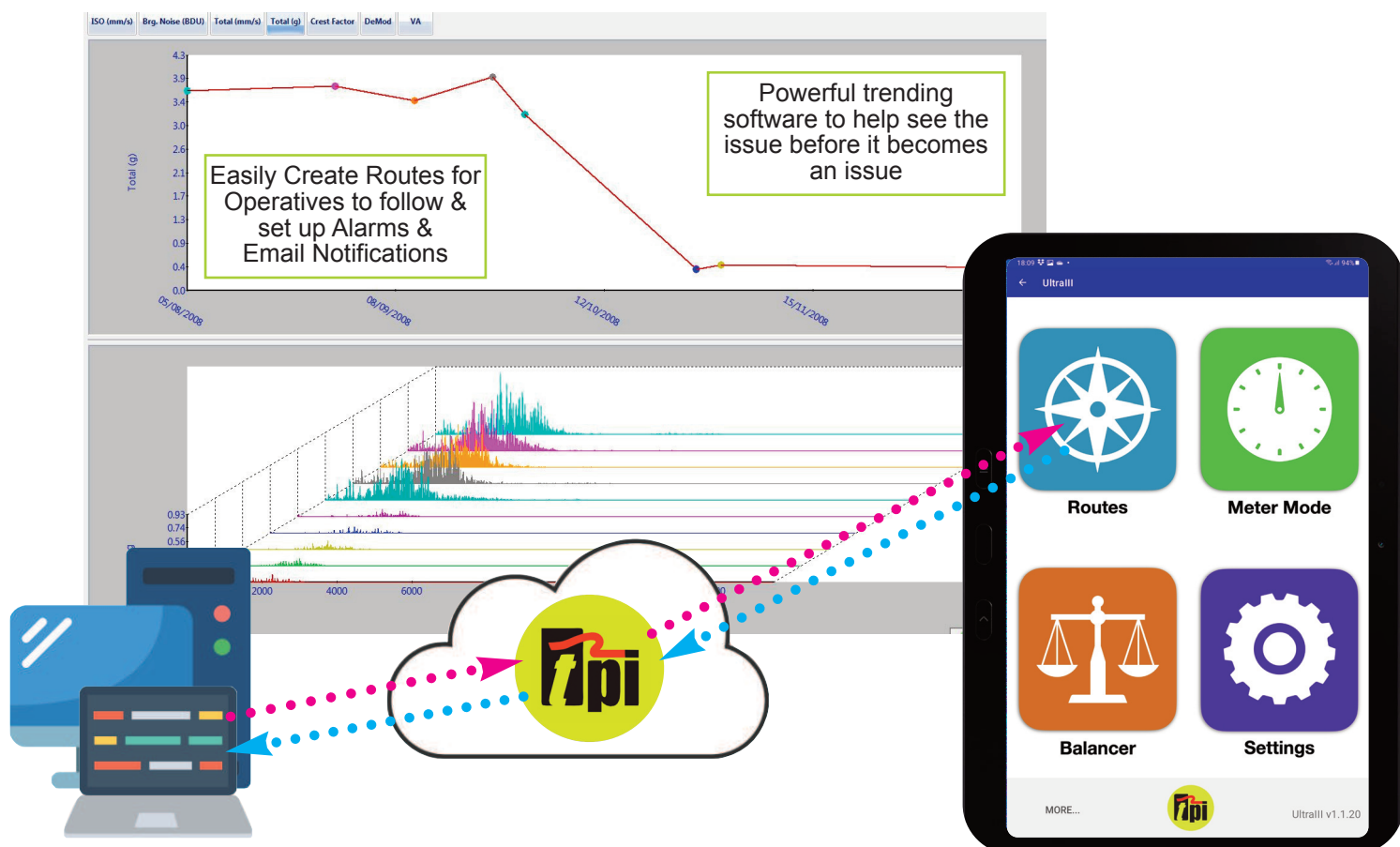


## 9043K1 - Smart Wireless THREE channel Vibration Analyser Kit

Comprising of 1 x 9043 Wireless 3 Channel Vibration Analyser, 1 x Android Tablet running the FREE, Subscription FREE TPI Ultra app, 2 each A9018 Accelerometers with Curly Cable & Magnets, 1 each 505L Tachometer & Cable in a BP1 Rucksack



## 9043K2 - As 9043K1 plus C-Trend PC activation (see pages 16 & 18 for further details)





9043 Signal Parameters	
Simultaneous Channel Capture	3 Channels
Input	<ul style="list-style-type: none"> <li>● IEPE (Powered and Unpowered)</li> <li>● DC or AC voltage</li> </ul>
Amplitude	+/-0.5V, +/-5V, +/-30V
Frequency Range / Resolution	1-Channel Mode <ul style="list-style-type: none"> <li>● DC to 30kHz</li> <li>● 100 to 51,200 Lines</li> </ul> 3-Channel Simultaneous <ul style="list-style-type: none"> <li>● DC to 10kHz</li> <li>● 100 to 12,800 Lines</li> </ul>
BDU - Bearing Noise - Frequency Range	1kHz - 10kHz
Dynamic Range	108dB
A/D Converter	24 bit
9043 Sensor Inputs	
Sensor Connection	3-Standard BNC Connectors
Sensor Types	millivolt sensors (e.g. accelerometer, velocity, displacement, temperature, tacho etc.)
Triaxial Accelerometer Compatible	Yes
Proximity Probe Compatible	Yes
Tachometer Input	Yes
9043 Information	
Connection	Bluetooth or USB-C
Battery Life (Continuous Use)	Up to 15 hours
IP Rating	IP 67
9043 Headphone Compatible	
Bluetooth (A2DP)	Yes
TPI ULTRA App	
Screen Cursors	Single, Harmonic, Moving Harmonic, Sideband, and Time/Frequency for waveform
Band Alarms	Yes
Peak to Peak Displacement	Yes
No tachometer (4-run) Balancing	Yes
Single & Dual Plane Balancing	Yes
Balancing RPM (Range) Low Limit	120 RPM
Diagnostic Features	DEMOM, Coast Down, Phase & Orbit Plots, Gap Voltage
TPI Ultra Route Transfer	
USB-C	Yes
Bluetooth	Yes
Cloud	Yes

	9075K1	9075K2	9043K1	9043K2
Android Tablet in protective case loaded with TPI Ultra app	Yes	Yes	Yes	Yes
9075 Screenless Wireless Accelerometer inc. driver activation key for TPI Ultra app	Yes	Yes	No	No
9043 Screenless 3 Channel Data Collector inc. driver activation key for TPI Ultra app	No	No	Yes	Yes
A905 Small Carry Case	Yes	Yes	No	No
BP1 Backpack	No	No	Yes	Yes
Hard Peli 1500 Case with Foam Inserts	Optional	Optional	Optional	Optional
2 each A9018 Wired accelerometers and magnet	No	No	Yes	Yes
505L Tachometer and cable	No	No	Yes	Yes
C-Trend PC software licence	No	YES	No	Yes

## TPI Ultra Features

### Meter Mode for taking Vibration Measurements

Displays ISO, Bearing Damage Units (BDU), Displacement and Total (g) as colour coded numbers	Yes	Yes	Yes	Yes
Displays FFT with pinch & zoom capabilities as well as highlighted VA bands and adjustable Run Speed	Yes	Yes	Yes	Yes
Displays user settable VA Bands	Yes	Yes	Yes	Yes
Displays Time Waveform with pinch & zoom capability	Yes	Yes	Yes	Yes
Displays DEMOD with pinch & zoom capability	Yes	Yes	Yes	Yes
Displays MACH VIEW	Yes	Yes	Yes	Yes
Save Readings to Android Tablet Memory for future recall	Yes	Yes	Yes	Yes
Generate PDF Report to Android Tablet Memory for future recall or sharing over e-mail	Yes	Yes	Yes	Yes

### Route Mode allowing operatives to follow a specified sequence of Vibration and Inspection Points

Receive Vibration Points, either locally or Globally using the Cloud, from C-Trend PC Software, then return the readings to C-Trend PC Software for further analysis	Upgradeable	Yes	Upgradeable	Yes
Receive Inspection Questions, either locally or Globally using the Cloud, from C-Trend PC Software, then return the answers to C-Trend PC Software for further analysis	Upgradeable	Yes	Upgradeable	Yes
Combine Vibration Points & Inspection Questions into the same route, allowing you to capture data and trend process variables (e.g. temperature, pressure, cleanliness etc.) using simple wizards whilst on the same asset that the vibration readings are being taken.	Upgradeable	Yes	Upgradeable	Yes

### Balancing Mode

Single Plane Balancing	No	No	Yes	Yes
2 Plane (Dual) Inboard Balancing	No	No	Yes	Yes
4 Run Balancing	Yes	Yes	Yes	Yes

### Vibration Rack Mode

Displacement Probes	No	No	Yes	Yes
Velocity Probes	No	No	Yes	Yes
Acceleration Probes	No	No	Yes	Yes
Integrated Acceleration Probes	No	No	Yes	Yes
Proximity Gap Probes	No	No	Yes	Yes

### Advanced Menu

Motor Test	Yes	Yes	Yes	Yes
X-Y Plot	No	No	Yes	Yes
Triaxial Sensor	No	No	Yes	Yes



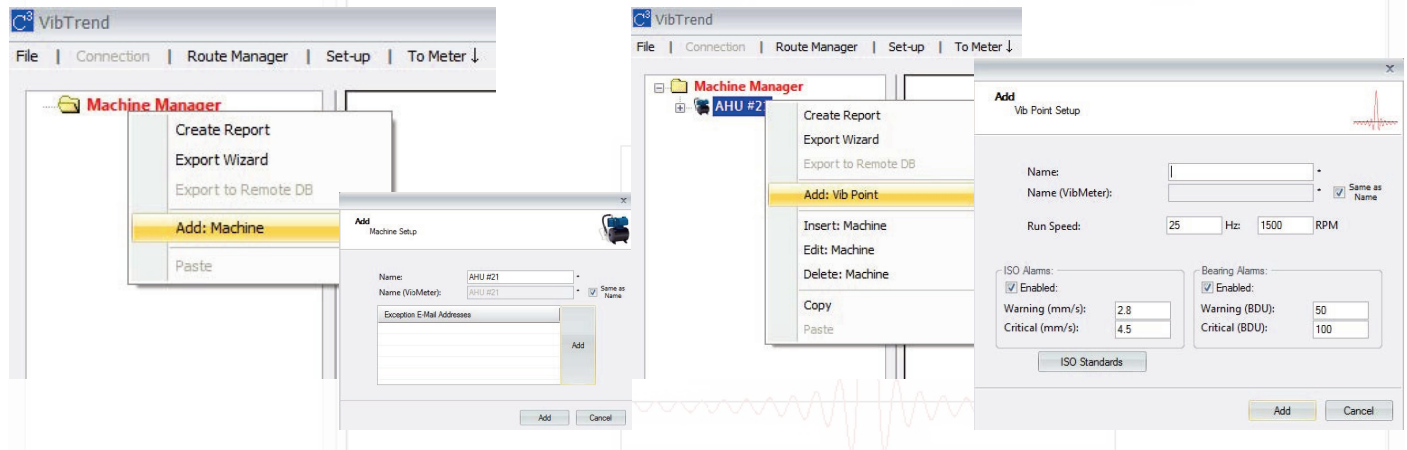
## SOFTWARE

	VIBTREND	CTREND
Integrates with the 9075 (using TPI Vib app), 9080, 9084 & 9085 Vibration Meters	✓	✓
Asset tracking by Machine Name and Vibration Points	✓	✓
Use pre-defined ISO and/or user defined Alarm Levels	✓	✓
Plot and Trend ISO, Bearing Damage Units (BDU), Total (g) & Displacement	✓	✓
Create "Routes", for operatives to follow, from the list of Machines & Vibration Points	✓	✓
Local data transfer "To" and "From" the Vibration Meter for sending "Routes" and receiving "Readings" back for further analysis either by USB or Bluetooth	✓	✓
See colour coded status warnings of machines overall as well as on each measured Vibration Point	✓	✓
View trend plots of each Vibration Point on each Machine/Asset	✓	✓
View waterfall graphs of each Vibration Point on each Machine/Asset	✓	✓
View VA Bands (Unbalance, Misalignment and Looseness) of each Vibration Point on each Machine/Asset	✓	✓
Adjust the run speed to see the effect on the VA Bands	✓	✓
Set up e-mail notifications based on user defined alarm levels	✓	✓
Back Up and Restore Data feature	✓	✓
Export/Import data/database feature	✓	✓
Create Reports ready for sharing or e-mailing	✓	✓
Copy & Paste feature for easy duplication of your machines	✓	✓
View Temperature alongside Vibration Point measurements if using the TPI 9085	✓	✓
Assign "off-route" readings to a Vibration Point after transfer from the Meter	✓	✓
Remote Databases	✓	✓
Microsoft Access Database	✓	
Microsoft SQL Server Database		✓
Integrates with the 9034/9038, 9043 & 9075 (using TPI Ultra app), 9080, 9084 & 9085 Vibration Meters & Monitors		✓
Global data transfer "To" and "From" the Vibration Meter for sending "Routes" and receiving "Readings" back for further analysis using TPI Ultra and/or TPI Bridge apps		✓
Enhanced asset management with 5 level hierarchy allowing for creation of Plants, Areas, Sub-Areas, Machine Trains and Vibration Points		✓
Demodulation (DEMOD) analysis with displayed Vibration Point Fault Frequency Cursors from Bearing Database*		✓
Inspection Points/Questions for visual checks while operative takes Vibration Point measurements*		✓
See colour coded Bar Graphs and Pie Charts for easy visual status of each Machine and/or Vibration/Measuring Point		✓
Wizard to Import VibTrend Data into C-Trend		✓

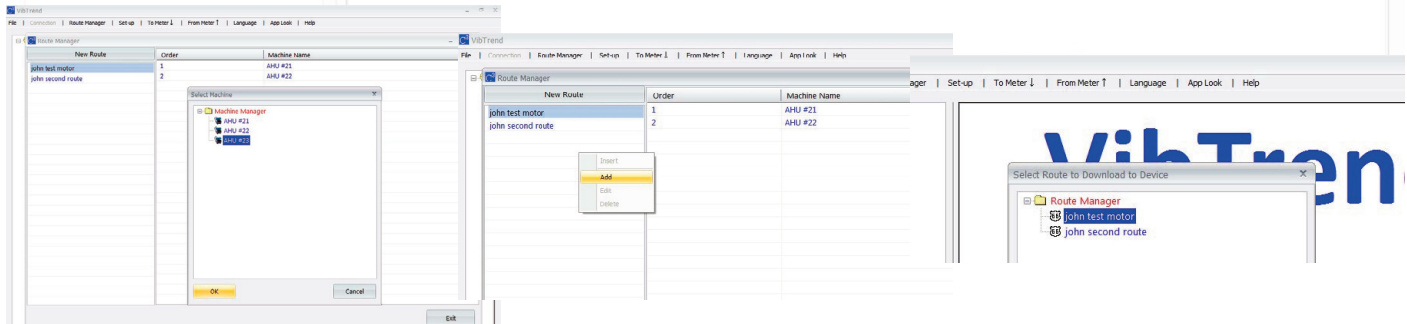
\* Needs TPI Ultra app to utilise this feature

Powerful but incredibly easy-to-use for asset management and fault diagnosis.

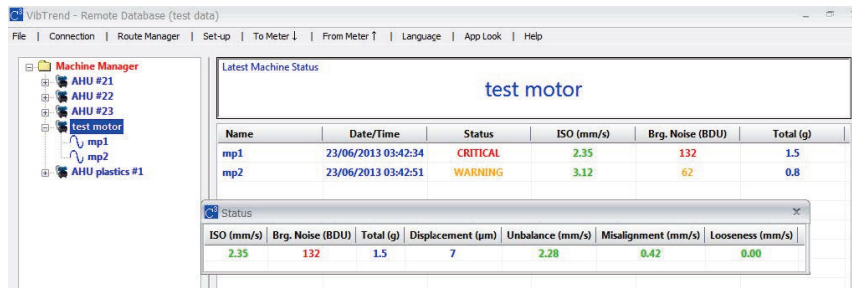
Add Machines & Vibration Points and using choice of pre-defined ISO and/or user-defined Alarm Levels for e-mail notifications



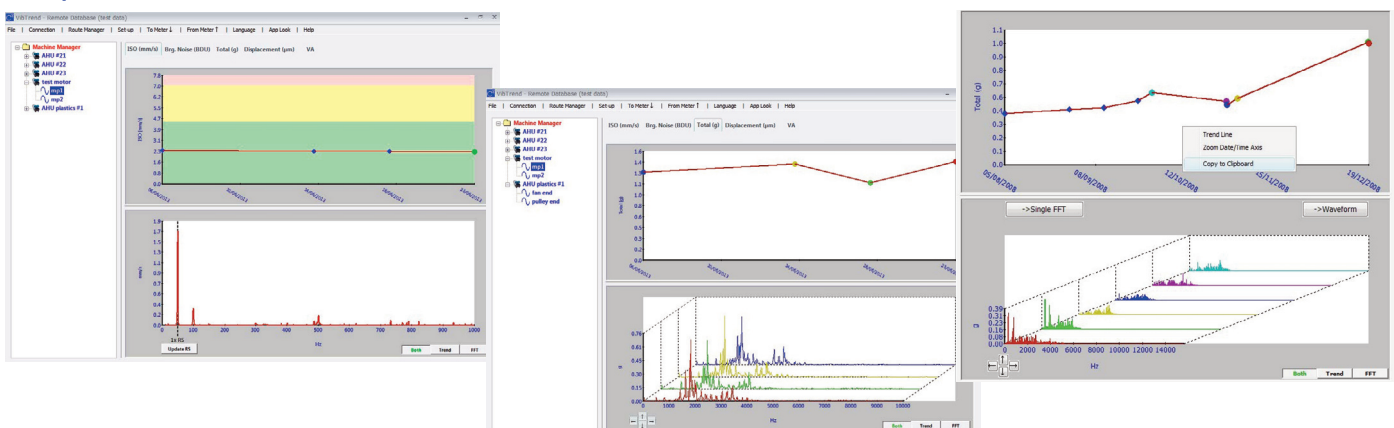
Create routes for operatives to follow and send these "To" and "From" the Meter to easily identify the measuring point and record the Vibration & Bearing Condition of the Machine



View Colour-Coded Status Warnings of Machines on measured points



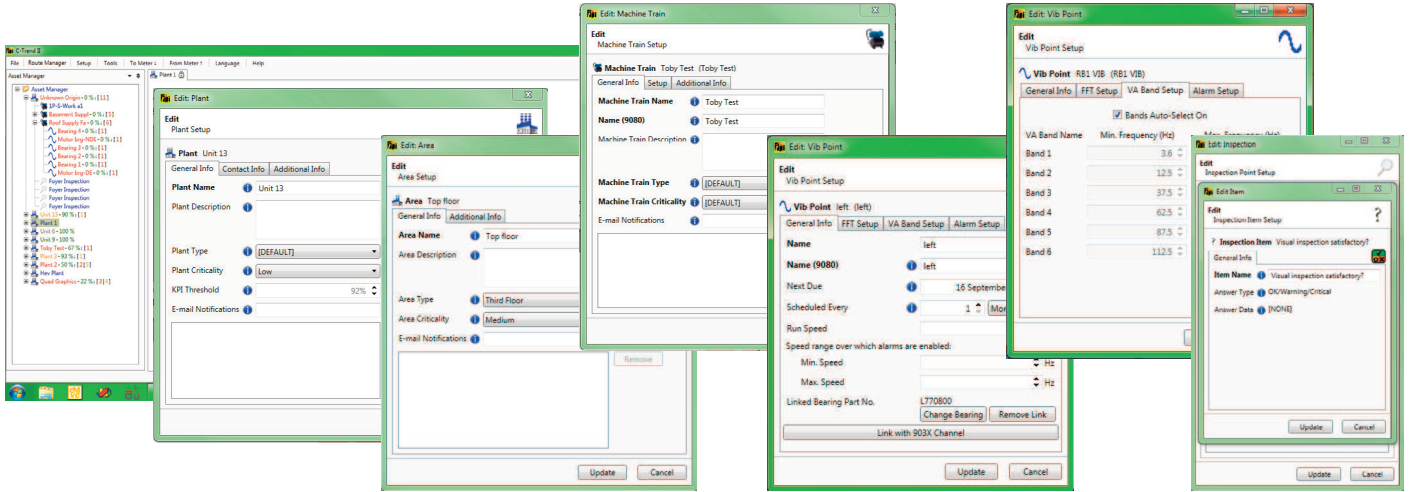
Perform further diagnosis of Machine Measuring points using Trend Plots & Waterfall Graphs



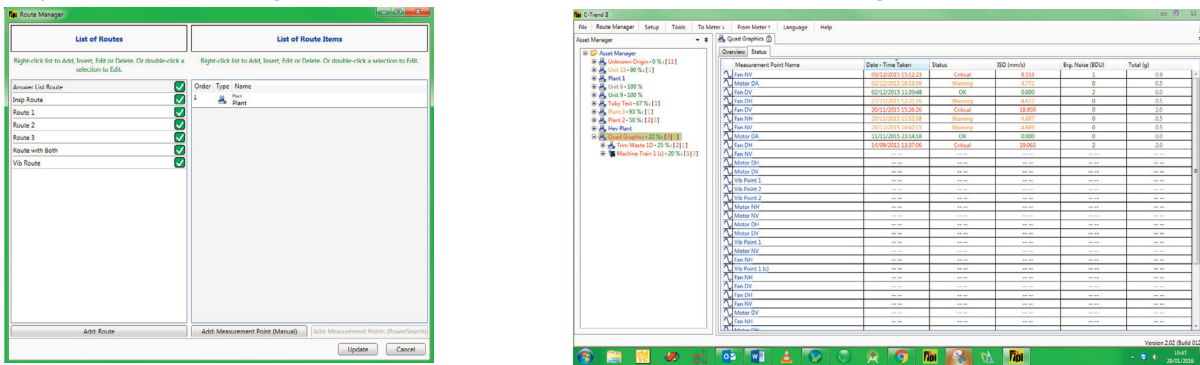


Powerful but incredibly easy-to-use for enhanced asset management and high level fault diagnosis including DEMOD, Shaft Orbit & Inspections.

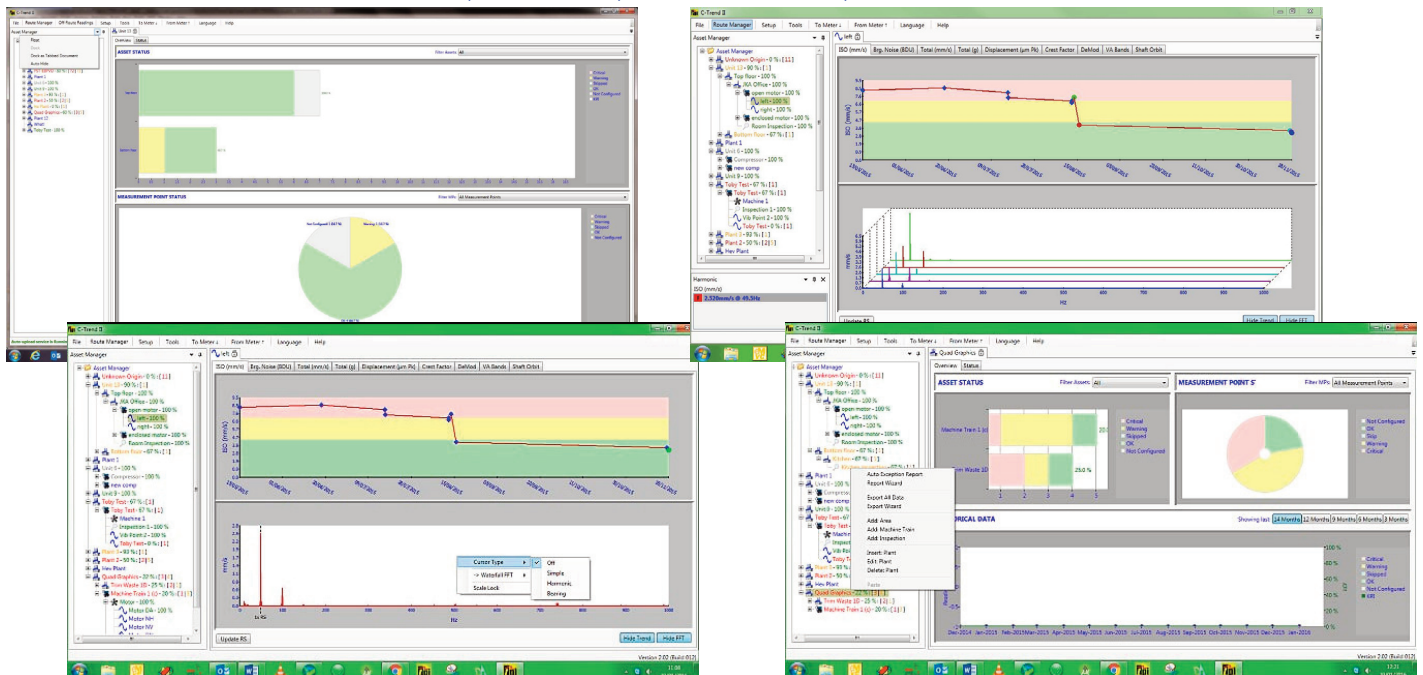
Create Plants, Areas, Machine Trains & Vibration Points and using choice of pre-defined ISO and/or user-defined Alarm Levels, Vibration Point Fault Frequencies from Bearing Database including Inspection Alerts for e-mail notifications

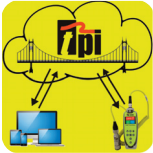


Create routes for operatives to follow and send these “To” and “From” the Meter to easily identify the measuring point and view the Vibration & Bearing Condition of the Machine

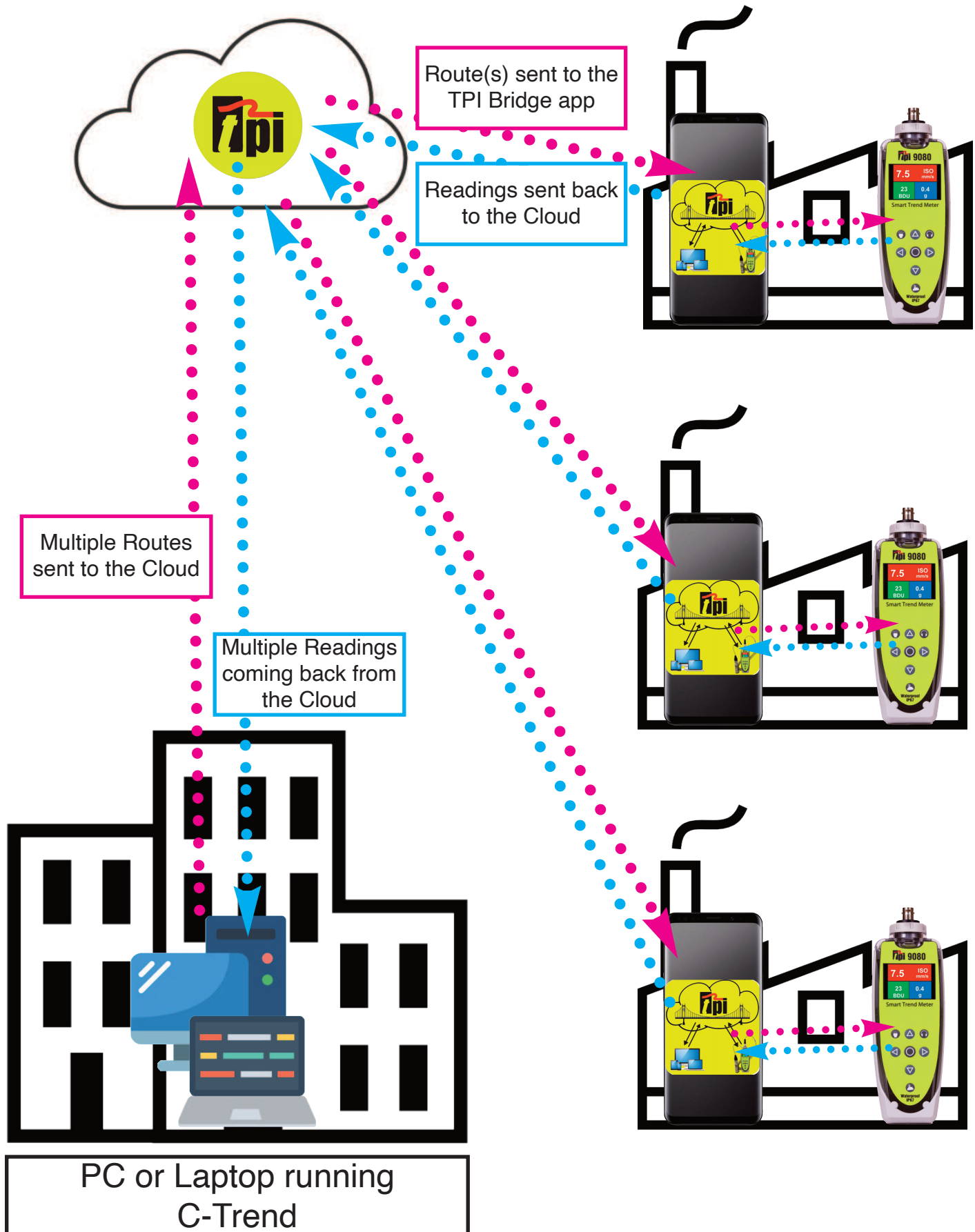


Perform further diagnosis of Machine Measuring points using a wide variety of additional features such as Crest Factor, DEMOD, Waterfall FFT, VA Bands etc...



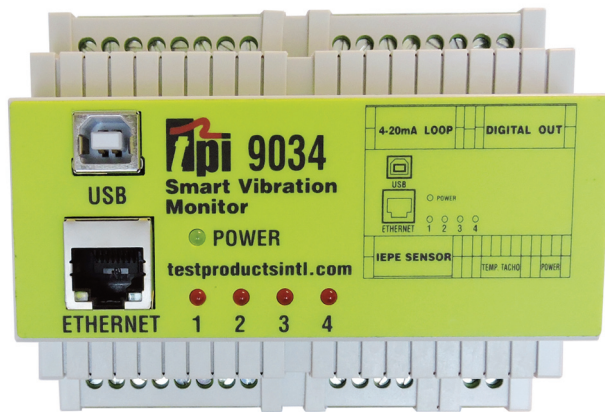


The FREE, subscription FREE, TPI Bridge app works in conjunction with the subscription FREE, C-Trend PC Software, to easily allow multiple routes to be sent to multiple, remote, 9080, 9084 or 9085 users, anywhere in the world, and receive the readings back for detailed analysis.





## 9034 or 9038 Smart Vibration 4 and 8 Channels



### 4 Channel



### 8 Channel

TPI Intelligent Vibration Monitor modules are perfect for extremely cost-effective monitoring of critical plants operations and when used in conjunction with the TPI 9070, 9071, 9075, 9080, 9084, 9085 or 9043, vibration analysers, provides the complete CBM solution.

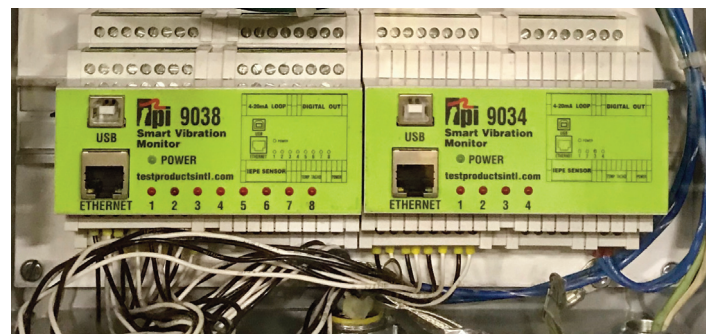
#### Online/Fixed Vibration Monitoring

##### Features:

- 4 accelerometer channel & 8 accelerometer channel versions
- 24VDC (relay drive) switched output for each channel (warning/critical, g or velocity)
- 4 to 20mA output for each channel (g or velocity)
- Temperature input
- Tacho Input
- USB or Ethernet connection to Smart Vibration Monitor PC software and optional Vibration Analysis software

##### Advantages:

- Extremely cost effective – lowest cost/channel industrial vibration monitor/analyser
- Very easy to set up using included Smart Vibration Monitor PC software (C-Trend II Software available as optional purchase)
- 24/7 monitoring of critical plant operations

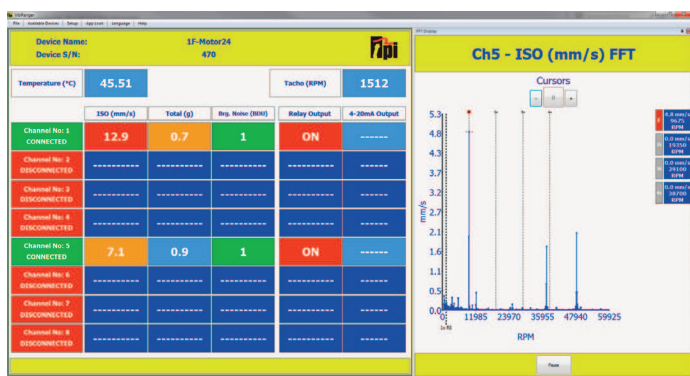


#### TPI 9034, 9038 Benefits:

Multi-Channel low-cost unit monitors plant with local alarms and connects to optional C-Trend high functionality PC analysis software.

The 9034 and 9038 Smart Vibration Monitors are the new generation of low price-high performance installed vibration analysers from TPI. With up to 8 accelerometer inputs, 8 digital outputs, 8 analogue outputs, temperature and tacho inputs as well as USB and Ethernet connectivity the 9034 and 9038 offer unrivalled price per channel performance. The analysers can be used in several different ways:

- **Standalone Operation** – Connect up to 8 accelerometers and up to 8 relays and instantaneously monitor and alarm on-key vibration points. Using the included Smart Vibration Monitor PC software the alarms can each independently be set to trigger on/either a velocity level or a g level. If a tacho is connected, a speed range can be set so as not to activate during machine start-up or shut-down.
- **Legacy Systems Operation** – for each connected accelerometer, the Smart Vibration Monitor units can also output levels of vibration (g or velocity) as 4 to 20mA signals for connection to existing monitoring systems such as PLCs, etc.
- **PC Operation** – If a laptop/PC is connected via a USB or Ethernet, up to 64 modules can be monitored and the vibration levels displayed on screen. With the PC connected more detailed vibration analysis can be carried out with optional C-Trend PC software.
- **C-Trend** – By purchasing optional C-Trend PC software it's possible to view and analyse the long term trend of all readings as well as being able to see FFTs of all logged data.



## Selection Guide: 4 Channel or 8 Channel Fixed Vibration Monitoring

	9034 Smart Vibration 4 channel		9038 Smart Vibration 8 channel
<b>Measurement</b>			
IEPE Accelerometer Input Channels	4		8
Accelerometer Sampling Frequency		25.6kHz	
4-20mA Output Channels	4		8
24VDC Digital Outputs	4		8
24VDC Dig. Output Current Max		100mA	
Digital Output Alarm		Acceleration or Velocity (Channel Selectable)	
Tachometer Input		1 (0V to any voltage up to +24VDC)	
Frequency Dependent Alarms		Yes (using Tachometer)	
Temperature Input		1 (Typically 10mV/°C)	
PC Connection		USB	
Internet Connection		Ethernet	
<b>PC Software</b>			
Vibration Alarms	4	Vibration	8
Temperature Alarm	1	Temperature	1
Alarm Choice		Acceleration AND/OR Velocity (channel selectable)	
FFT		Up to 12,800 lines	
Time Waveform		Yes, with optional C-Trend II Software	
<b>Electrical</b>			
Supply Voltage		USB or 24VDC	
Supply Current		500mA	
<b>Mechanical</b>			
Environmental		IP50	
Operating Temperature °C		0-55°C (32-151°F)	
Storage Temperature °C		0-55°C (32-151°F)	
Mounting		DIN Rail	
Part Number	9034		9038

### A9031 Grub screw

1/4"-28 UNF 1/2" Male to  
1/4"-28 UNF 1/2" Male



### A9032 Grub screw

1/4"-28 UNF Male to M6 Male



### A9033 Glue face stud

1/4"-28 UNF Male



**A9034 Spot Facing  
Installation Kit**  
1/4"-28 UNF thread



**A9035 Spot Facing  
Installation Kit**  
M6 thread

**A9014 Accelerometer  
with 2-pin connector**



### Straight 2 Pin MS Connector and Flying Leads

**A9019:** 5m (16ft) with straight 2 Pin MS connector  
and flying leads

**A9028:** 10m (32ft) with straight 2 Pin MS connector  
and flying leads

**A9029:** 15m (49ft) with straight 2 Pin MS connector  
and flying leads

**A9036:** 5m (16ft) with angled 2 Pin MS connector  
and flying leads

**A9037:** 10m (32ft) with angled 2 Pin MS connector  
and flying leads

**A9038:** 15m (49ft) with angled 2 Pin MS connector  
and flying leads





## 9043PELI - Upgrade to Peli Case with foam inserts



## 9043TRI - Tri-axial sensor & cable for 9043



## A9080 Bluetooth® Headset

Industry approved ear defenders with built-in-Bluetooth headphones allow you to listen to the bearing noise. Also use with your smart phone. Sold separately to work with 9080-Standard, Pro, Plus or K1 kits.as well as the 9084 or 9085



For use with 9080, 9084 & 9085 only

## A9082 Strobe

Stroboscope/flashlight attachment used to determine the speed of rotating equipment. Included with 9080 Plus, 9080K1 & 9080K2 kits. Also sold separately.



For use with 9080 only

## 377BT Infrared Thermometer

- Bluetooth Communication
- Laser Sighting to confirm target.
- Adjustable emissivity for maximum accuracy on all surfaces.
- °F or °C Selectable
- 11.5:1 Distance to Spot Ratio
- 3 Year Limited Warranty
- Temperature Range: -50 to 1,000°C
- K-Type thermocouple input for optional K-Type probe measurement.
- 0.1 Degree Resolution provides increased accuracy of reading.



## 505L Digital Handheld Tachometer

Combination photo and contact tachometer that also measures surface speeds of belts and wheels. Up to 25 feet in photo target mode.

- Measure motor input and output shaft speed
- Determine conveyor belt speed
- Confirm fan, motor, and gear RPM
- Measure RPM of flywheels and pumps
- Monitor pulley rotation RPM and turbine speeds

### Features

- Target (photo mode) is 25 feet
- Multifunctions: Photo Tach & Contact Tach & Surface Speed
- Wide Measuring Range: 6 to 30,000 RPM
- Last Value, Max Value, Min Value: automatically saved and recalled
- 3 Year Limited Warranty



## Optional, Additional or Replacement Accelerometers & Cables

### A9013 BNC to 2 Pin Cable



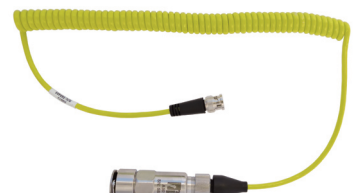
### A9014 2 Pin Accelerometer



### A9017 BNC to 2 Pin Cable & Accelerometer



### A9018 BNC to 2 Pin Cable & Accelerometer inc. Magnet





TPI is able to offer a very comprehensive level of customer support. From help with product selection through to training, after sales service and instrument calibration we are proud of the service we offer.

Additionally, if you have a quantity requirement, a customisation requirement (including private labelling) or even a complete instrument design please contact us. TPI is somewhat unusual in that the vast majority of our instrumentation design is carried out in the UK by our own R&D team prior to being manufactured in a partner company's high tech factory in South Korea. This ensures that any questions you ask can be answered by the designers themselves.

**Remember... with TPI you get a lifetime of support.**

## 2025 CBM Instrument Catalogue

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