

# L-PON DOCTOR

#### Introduction document





**1.** Purpose of system introduction

Collect viberation data of pumps

Visualize the vibration tendency of each pump

 Calculate the remaining life of the bearing based on the collected vibration data

Increase maintenance interval = cost saving

**2.** Function of vibration monitoring system

- Monitor vibration of active pumps
- Collect vibration data on a regular basis
- Collect the vibration data of the terget pump immediately when issuing an alarm
- Predict lifrespan based on stored vibration data

## 3-1. System configration



#### 3-2. System configration

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#### - Installation example of equipment



Although the standart product is 8 channels, it is possible to add more channels.



## 4. Diagnotic software - constitution



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## 4-1. Automatic mode - screen





#### 4-2. Automatic mode - During regular data collection

- ~エルポンドクター [自動モード] 監視中 EDBI 停止 再開 軽警報 重警報 LNG昇圧ポンプ 正常値 前回計測値 過去最大値 ⑦記録収集 - - - - X 加速度 [m/s2] Collecting process is running Pump group LNG Pump name 5-LNG pump 0.00 1111 - 起動中 X2 ΧЗ X4 X5 X7 停止中
- Collect data according to the record collection cycle.
- Data is saved on the HDD.



## TDE

#### 4-3. Automatic mode - alarm



• If abnormal vibration is detected, it will collect data immediately and help to identify the cause of trouble.



## 4-4. Manual mode - screen

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• You can manually analize the waveform at any time.

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#### 4-5. Spectrum - graph



- Display FFT analysis data (Spectrum).
- Identify the peak frequency by peak list and search bar.



## TDE

#### 4-6. Time waveform - graph



• Display the time waveform before analysis.

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#### 4-7. 3D data - graph





• By displaying spectrum data in choronological order, you can check the time change of them.





#### 4-8. Trend data - graph



 Based on the regular data collected in automatic mode, predict the proper timing of repair of pump.

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- Simple onfiguration and easy to use
- Possess only necessary functions

Can also be customized for details

