

### Product Overview

PTSenR PTSPS104 have ability to comprehensively monitor temperature & vibration data, such as transformer and motor. The growing factory automation leads to wide application of electronic and automatic equipment. With more and more transformers and electric motors are used. Long-term operation of transformers and electric motors results in greater vibration over time, which will trigger irrecoverable faults if not handled in time. Accidents may be prevented if timely measures are taken after timely accident prediction is made and advanced early warning is given, thereby minimizing the loss. In view of this, we developed a vibration sensor supporting AC 220V power supply, which gathers real-time vibration data and sends it wirelessly to the terminal, so that users can grasp real-time status of transformers and electric motors via the terminal and background system, thus eliminating the need for manual inspection and later maintenance.



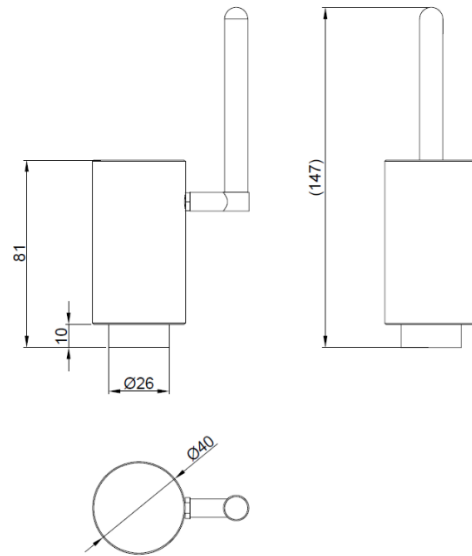
### Application

PTSPS104 provides 7 x 24 x 365 continuous temperature & vibration monitoring of electrical equipment including transformers, electric motors, and box transformer substation, and etc.

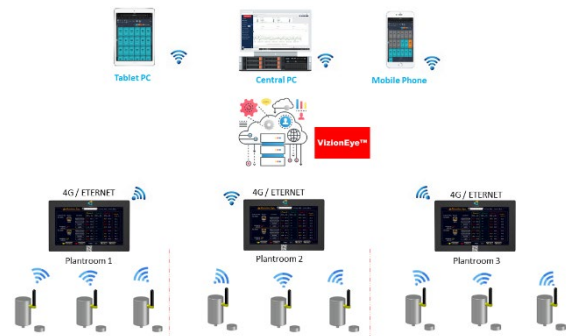
### Features

- Wireless data transmission
- No messy wiring
- No external power
- Continuous 24 x 7 temperature & vibration monitoring
- Accurate
- Fast + easy installation
- No require for human intervention & inspection
- Strong anti-interference
- Detects faults before fail
- Easy integration

### Dimensions (Unit: mm, tolerance: ±1%)



### The System Architecture



### Specification

|                              |                                                                                                                     |
|------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Power supply input           | DC 3.6 battery powered                                                                                              |
| Energy Harvesting            | <50µA                                                                                                               |
| Temperature measurement      | -40°C ~ 150°C                                                                                                       |
| Frequency                    | 10 ~ 1Kz                                                                                                            |
| Transmission interval        | One detection / 1 minutes (customizable), instant if vibration amplitude >0.5mm/s, 15minutes if no vibration occurs |
| Wireless operating bandwidth | LORA                                                                                                                |
| Speed scope                  | 0 ~ 50mm/s                                                                                                          |
| Transmission distance        | ≤300m (open air)                                                                                                    |
| Monitoring direction         | In three axis (X,Y,Z)                                                                                               |
| Battery life                 | 2 ~ 3 years                                                                                                         |
| Explosion-proof level        | ExialICT4Ga (application to zone 0,1,2)                                                                             |

#### Miscellaneous

|                             |                                                                                                                     |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------|
| Cable sensor host dimension | 39 x 85 mm (cylinder diameter x height)                                                                             |
| Weight                      | 250gram                                                                                                             |
| Operation Temperature       | -30°C ~ 80°C                                                                                                        |
| Relative Humidity (RH)      | ≤90%RH (non-condensing)                                                                                             |
| Storage Temperature         | -10°C ~ 75°C                                                                                                        |
| Mounting method             | Magnetic or bolt                                                                                                    |
| Certification               | CE – EN 61000-6-2:2005+AC;<br>2014/35/EU LOW VOLTAGE DIRECTIVE;<br>2014/30/EU ELECTROMAGNETIC COMPABILITY DIRECTIVE |
|                             | EN 61000-6-4:2007+A1:2011;<br>EN 62366-1:2014+A11:2017                                                              |

#### Ordering Information

| Part Number | Product Description          |
|-------------|------------------------------|
| PTSPS104    | PTSenR Temperature Vibration |

