

# PROVIB

REMOTE CONDITION MONITORING - ANALYSIS - PROTECTION

CLOUD IoT

IoT PREDICTIVE  
MAINTENANCE

MQTT PROTOCOL  
FOR DATA SECURITY

MACHINE  
PROTECTION



**NEW**

- MAXIMIZE LIFETIME OF PLANTS
- REDUCE SERVICE TIME AND MONEY
- AVOID DOWNTIME
- PLAN THE MAINTENANCE
- IMPROVE THE ENERGY EFFICIENCY



**CEMB**

BALANCING MACHINES

# PROVIB: remote condition monitoring - analysis - protection

## PROVIB combines in a single system:

- PROTECTION OF ROTATING MACHINES
- IDENTIFICATION OF MALFUNCTIONS AND PREDICTIVE ANALYSIS
- REMOTE CONDITION MONITORING

PROVIB is easily installed and data is sent to the cloud with secure protocols.

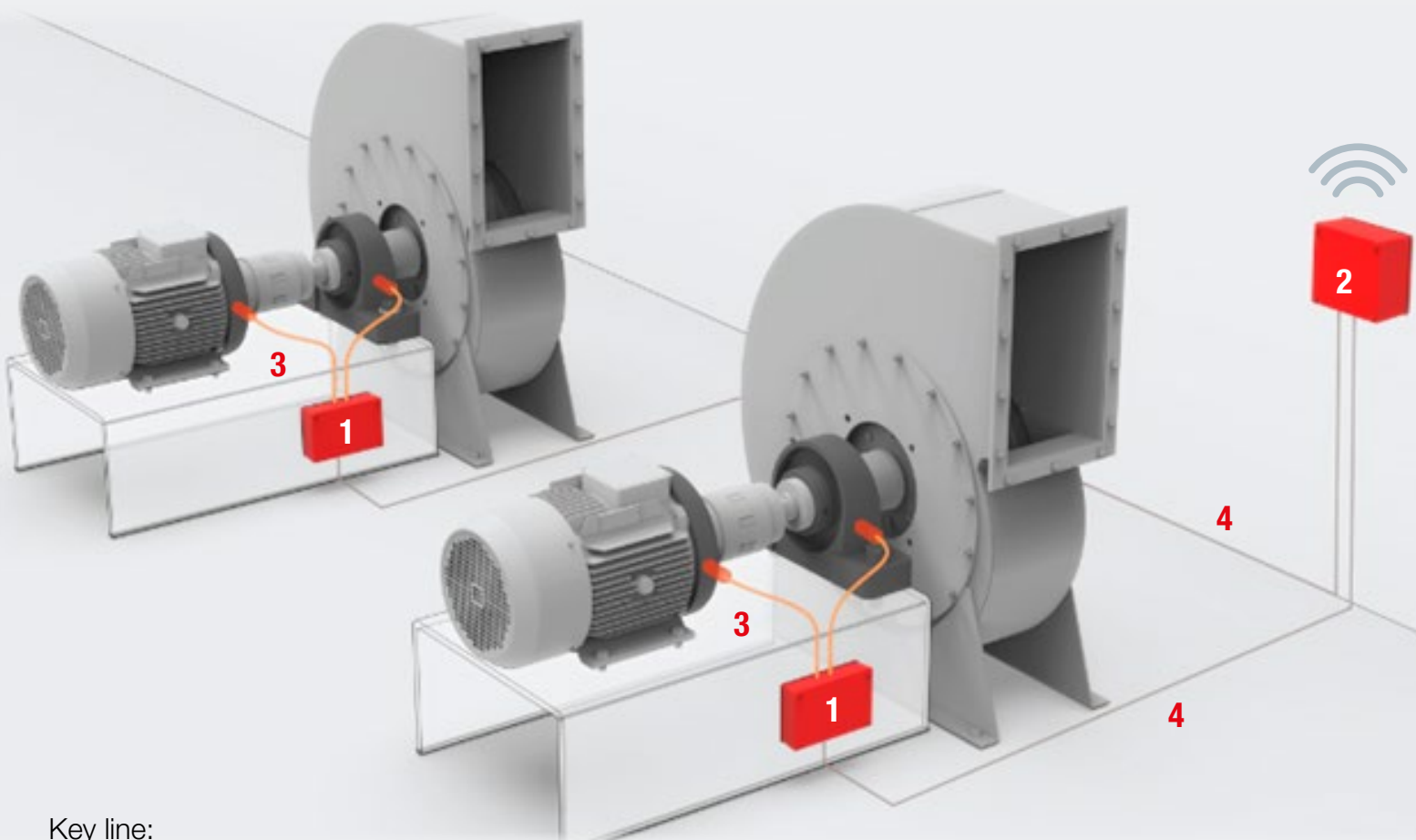
Authorized personnel view the data via WEB from PC, Tablet or Smartphone and receive notifications via e-mail and SMS.

PROVIB does not require the installation of dedicated software, nor licenses or updates, but is completely WEB based.

PROVIB complies with Industry 4.0 directives and allows you to take advantage of the related tax benefits.

## The installation of PROVIB is easy:

Typical installation example



Key line:

- 1 TD2-CLOUD control units (pre-installed in JB INOX AISI316 - IP68)\*
- 2 GTW-CLOUD gateway (panel or wall)
- 3 Accelerometers
- 4 RJ-45 Ethernet connection

(\*) includes up to 6 SPDT relays + 2 4-20mA outputs for the plant PLC.

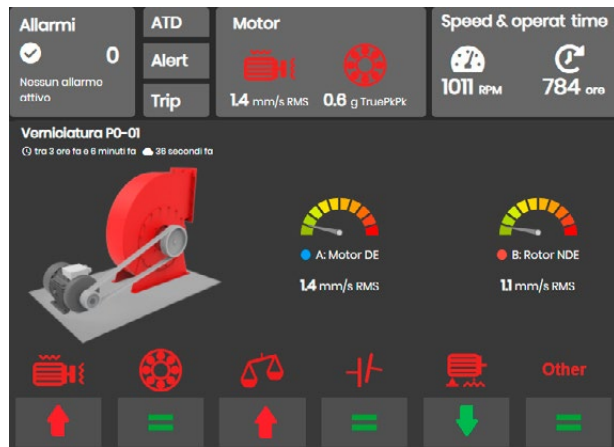
## With PROVIB you can:

- be informed when the trend begins to deteriorate, long before the alarm occurs
- view the progress of fault situations over time
- plan the intervention knowing in advance which type of malfunction to correct in the field
- optimize the thresholds according to the specific monitored machine
- protect the machine with 6 SPDT relays and two 4-20mA outputs for the plant PLC

# PROVIB: easy and powerful Condition Monitoring via web

## MACHINE DASHBOARD

with predictive analysis of the causes of failure.



## GEOLOCALIZATION

of the installations and synoptic view of the plant.



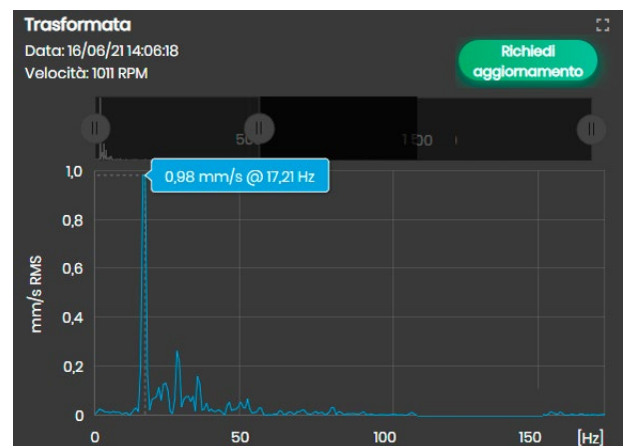
## EVOLUTION and TREND

of fault indicators.



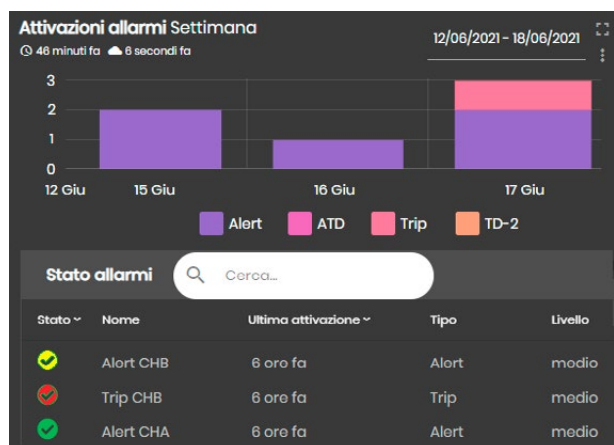
## FFT and WATERFALL

for advanced analysis by expert personnel.



## ALARM SYNOPTIC

customization of alarms by sending SMS & email. Alarm management on 3 levels of configurable access.



## REPORTING MANAGEMENT

The content of each page can be exported to .xlsx format for report management and analysis.



# CEMB

## TD2-CLOUD CONTROL UNITS

TD2-CLOUD have to be installed near the machine from monitor inside an AISI 316 stainless steel JB with IP68 protection and they are supplied complete of cable glands. For machines already equipped with control cabinet it is possible to have the version Din-Rail mount. Each control unit can accept up to 2 accelerometers and a speed detector.

TD2-CLOUD integrates also the protection functions of the machine: up to 6 SPDT relays + two 4-20mA outputs for the plant PLC - if present.

Ordering code: **TD2-CLOUD/A/B/C/D/E**

### A: Power supply

0: 110-230 Vac (default)  
1: 24Vdc

### B: Case box

0: box INOX AISI316 IP68  
1: DIN-RAIL control unit (only for 24 Vdc version)

### C: Speed measurement

0: none  
1: fixed preset speed  
2: PNP speed sensor

### D: Number of accelerometers

1: 1 accelerometer  
2: 2 accelerometers

### E: Vibration measure

0: accelerometer 100mV/g (TA-18/S)

**Note:** accelerometers and connection cables must be ordered separately

## GATEWAY CLOUD

The GATEWAY is installed in the control cabinet (on in separate JB on request). It connects via ethernet to the control units TD2-CLOUD. In standard version, it is supplied with Din-Rail connection, 24Vdc power supply and antenna Wi-Fi / 4G.

Ordering code: **GTW-CLOUD/A/B/C**

### A: Type

0: standard - up to 14 IP address  
S: for future use

### B: Connection to the cloud

0: Ethernet RJ  
1: Wi-Fi  
2: 4G modem

### C: Connection to the field

0: Modbus TCP/IP

**Note:** the data SIM for 4G and the network infrastructure for Gateway connection is not included in the supply and it is in charge of the customer.

## SUBSCRIPTION TO THE SERVICES OF CONDITION MONITORING

PROVIB is cloud-based and it is accessible via web: does not require the purchase and installation of Software dedicated, licenses and hardware upgrades and software, eliminating all the complications. The subscription allows you to access the services of condition monitoring via WEB, which are calculated based on consumption, and on the number of sensors and gateways installed. Along with the subscription the domain is assigned with the login credentials to WEB services. This is all it takes.

Ordering code: **PROVIB-CLOUD/AAA/BB**

AAA: total number of accelerometers installed: (1-999)  
BB: total number of gateways installed: (1-99)



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