



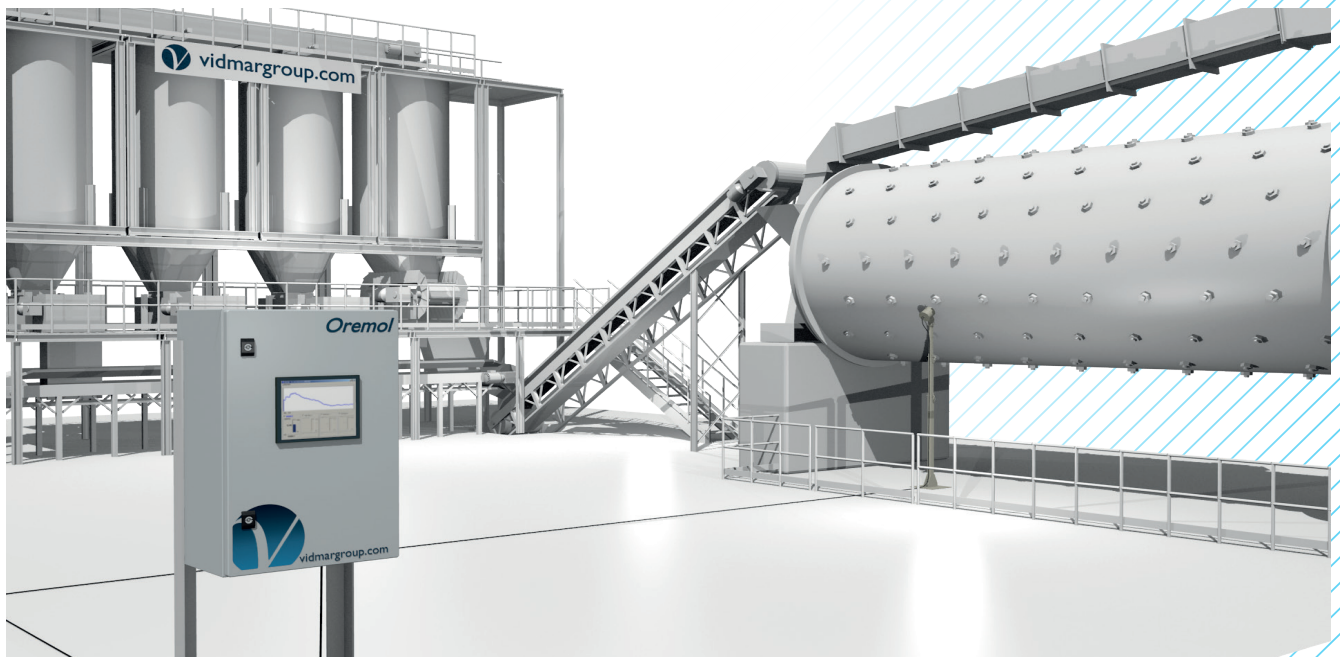
OREMOL5

Improve productivity & quality

BALL MILLS ACOUSTIC LOADMETER

With the electronic ear OREMOL5, you can measure real time information of the load inside the mill. With this data, you can make instant decisions and improve your process, both in quality and quantity, as in energy consumption and maintenance costs.

- Software application, running on commercial hardware with an industrial computer and market peripherals.
- Controls up to 2 audio inputs simultaneously in the same main board.
- Using Industrial Computer gives the system benefits and advantages.
- Rugged design for industrial environment.



LOAD LEVELS IN REAL TIME

The electronic ear OREMOL5 from VIDMAR is used as a measuring device for the hitting ball noise inside the mill. This noise is read by a high sensibility microphone who transmit the signal to OREMOL5, using an standard audio input and an industrial computer.

OREMOL5 transforms the signal from domain time to frequency time to be analyzed, and give a configurable analog output (0-20mA, / 4-20mA / 0-10V) proportional to mill load / noise level.

Analog outputs given by OREMOL5 may be read by an expert system, in order to optimize process and production.

Signals may be read thru the integrated communication port, using SERIAL MODBUS or ETHERNET MODBUS TCP.

Every sound measurement set includes two microphones to be installed near the mill tube in the ball impact area. OREMOL5 permit up to 2 simultaneous microphones connection to control 2 ball mills.

APPLICATIONS

This equipment is normally used in production systems with ball mills involved, to prevent under or overload who can interrupt normal process. It may also be used to increment fresh feeding product flow and so maximizing performance, as well as a stop feeding alarm.

MICROPHONE

Installed in a 150 mm diameter - Ø150 mm length tube. Inside the tube microphone is wrapped by an isolation chamber and, in the front area it has one dust protection cover. Rear side with XLRM connector type, to make microphone change easy.

Cable is a two shielded wires type.

Microphone support orientable to look for the best orientation.

MAIN FEATURES

- Load trending and frequency signal treatment for every mill.
- Tactile human interface for easy configuration.
- Serial ModBus or Ethernet ModBus TCP communications.
- Programmable analog output levels incorporating simulation for easy signal checking.
- Audio data acquisition and analog outputs with software adjusted filters.
- Change calibration parameters without necessity of a empty mill / full mill process.
- Configuration parameters backup for easy reloading in case of data lost.

SUPPLIED ACCESORIES

- 25 meters of special microphone cable.
- Noise isolated microphone support to avoid lateral noise reading.

OPTIONAL ACCESORIES

- Telescopic support to adjust microphone height.
- Galvanic isolators for analog signals.
- Special cables.

Power supply	88...264 VAC 50/60Hz
Microphone inputs	Standard: 1 Optionals: 3 Impedance: 250 W
Frequency bands	50..... 5.000Hz
Analog outputs	Standard: 1 Optionals: 3 Span: Software selectable: 4...20 mA / 20... 4 mA 0...20 mA / 20... 0 mA 0...10 V / 10... 0 V Load impedance: 0.. 500 W Voltage isolation: 3000 VDC
Operational screen	TFT 6,4" Resolution 640 x 460 Brillo 300 cd/m2
Industrial computer	No fan VIA 667 MHz, 128 MB RAM, 1GB Compact Flash
Total current consumed	2 A
Max distance between microphone and equipment	Standard cable: 50 metros Special cable: 150 metros
Power supply	Thermomagnetic protected
Temperature	Operation: 0°C +45°C Storage: -20°C +70°C
Measures	600 x 380 x 210 mm
Protection	IP54
Wall anchor	According to measures drawing
Weight	15 kg