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Structure-Borne Noise System usc4000

To increase production and to monitor
grinding processes



Structure-borne noise system usc4000



The usc4000 is a structure-borne noise system to control grinding processes thus increasing production. Short production cycles and/or high accuracy requirements are areas where this unit is utilized. The usc4000 is highly sensitive and is able to recognize within a few micrometers infeed the contact between part and grinding wheel. This reduces the air grinding time considerably. During wheel dressing larger savings in time and grinding wheel material are obtained. The usc4000 assist further in the setup of parts and grinding wheels.

The unit accepts wire-bound or no-contact structure-borne sound sensors. The no-contact sensor is mounted directly on the rotating spindle. The structure-borne sound is transferred through an air gap of approximately 0.5mm to 2.5mm to the receiver and from there by cable to the control unit. Switches on the controller are used to adjust the unit to your machine. The sensitivity and the background noise are accurately adjustable by screw driver.

24V in and outputs are available to communicate with the machine controller. The structure-borne noise is available as an analog value between 0V and 5V. The small footprint of the usc4000 unit allows it to be mounted within electrical panels or the operator panel. To mount the unit into a 19" rack a special front plate is available.

Further advantages of the usc4000

- Continuous monitoring of the structural machine noise
- Two channels for different settings
- Select continuous or single signal monitoring
- Two large LED bars visualize the condition of the structural noise with two colors
- Simple and easy operation
- Simple and quick installation and initial operation
- Reliable and maintenance-free

Components for the usc4000

- Wire-bound ultra-sound sensors
- No-contact ultra-sound sensors
- Customer specific ultra-sound sensors
- 19" front plate
- 24VDC mains adapter

Technical data

- | | |
|---------------------|---------------|
| - Power supply | 24VDC |
| - Power consumption | maximum 5W |
| - Protection | IP 65 |
| - Controller weight | maximum 0.6kg |

Dimensions

- Built-in: W = 146mm/ D = 26mm / H = 92mm
- 19": W = 213mm/ D = 27.5mm / H = 128.7mm