

# TMU TP – CONTROLLER-INDEPENDENT PROCESS MONITORING SYSTEM FOR METAL MACHINING

## SIMPLE MEASUREMENT OF TRUE POWER WITH HALL SENSORS

TMU TP is the system for simple monitoring tasks during metal machining. It detects tool failure and wear as well as missing tools while the process is under way. TMU TP



uses the true power of the spindle as a measured variable for process monitoring. To do this, two hall sensors are connected to the evaluation unit. TMU TP is suitable for all processes that can be evaluated by means of true power.

A compact I/O interface is available for the signal exchange. This direct wiring means the system is independent of the machine's control system. Particular emphasis was attached to ensuring easy installation and startup.

### Advantages

- >> Controller-independent thanks to direct wiring
- >> Clear visualization with intuitive operation
- >> "Comparison function" for simple process analysis
- >> Easy installation and startup

### Applications

- >> Drilling
- >> Tapping
- >> Milling

## PROCESS MONITORING WITH TRUE POWER MEASUREMENT

### TMU TP configurations



TMU TP combined with CT-100 hall sensors for small to midsize drives up to a max. current consumption of 100 A



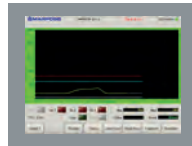
TMU TP combined with LA205S hall sensors for large drives with high machining performance with a max. current consumption of 200 A

Connection terminal (3-pin) for voltage measurement cables (U, V, W)

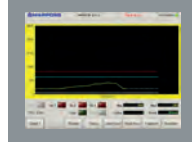


### Visualization

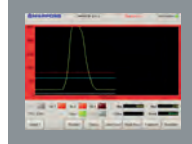
The TMVIEW visualization software displays the process statuses at a glance. A computer with a Windows operating system is required for visualization. This can be the machine's own control system or a separate device.



Green:  
Fault-free operation.



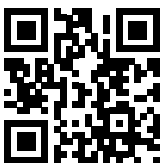
Yellow: The alarms are deactivated, e.g., during setup. Abnormalities in the process are displayed but no actions are triggered.



Red: The set boundaries are violated and the action intended to counter this in the NC program is triggered.

### Technical features

- Exportable process curves (3 ms resolution)
- 127 different parameter sets can be stored
- 3 monitoring strategies
- 9 input signals (activation)
- 4 output signals (alarms)
- Use without display possible (setup with Windows PC)
- 0–10 V analog output signal
- Retrofitting possible



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ODN6421EN04 – Edition 01/2017 – Specifications are subject to modifications.

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