

LW1 – Power consumption sensor

Technical data

- ⊕ Power Supply ± 15 V DC ± 5 %, Ripple: max 100 mVss, ± 100 mA
- ⊕ Output ± 10 V DC lin, 0 – 10 V log
- ⊕ Dissolution > 60 dB
- ⊕ Temperature Range 0 to 50 °C
- ⊕ Amplifier Protection Type IP 20, suitable for installation in switch cabinet
- ⊕ Dimensions (L x W x H) 73,2 x 75 x 78,2 (mm)



Typical applications

- ⊕ Tool wear, breakage in drilling and milling applications



LW-1 Applications and limitations

Strengths:

- ⊕ Simple installation, stay away from machining chamber
- ⊕ Can detect tool wear better than any other technology

Weaknesses:

- ⊕ Can't measure all applications. Dependent on ratio of motor strength and cutting tool size and material. I.e. with standard 3.5 bhp motor, can't measure below 0.5 mm drill. Power consumption does not change enough.



General take-away; Good for detecting tool breakage / wear in turning and milling, not suitable for stamping and punching applications