



- Simple and fully analogue (no programming, no online settings, no flip-flops, no memory)
- Based on four independent BPM signals and corresponding analogue processing channels
- Input circuitry provides necessary protection against large pick-up signals (some 100 V peak expected for full intensity) and filtering
- Low pass filters set the trade-off between the detection level and the speed (aim: 5 turns or better if required)
- Amplifier gain sets the sensitivity (aim: $3e9$ or better if required)
- For simplicity the threshold level and hysteresis are fixed (CMOS gates with Schmitt inputs), no need to adjust or monitor them
- Full knowledge about system behaviour by observing the amplifier outputs (slow signals)