

XL2 Analyzer for Occupational Health



XL2 Audio and Acoustic Analyzer with M2210 measurement microphone with class 1 frequency response

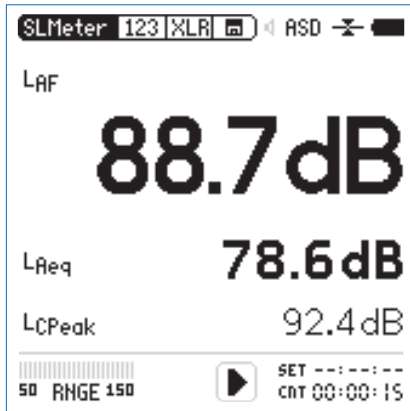


Applications

- Measure noise exposure at work according directive 2003/10/EC
- Confirm compliance with health standards ISO 1999:1990
- Prevent hearing loss at work

Advantages

- Handheld and compact design for field applications
- Calibrated acoustic measurement system
- Improved efficiency with dedicated measurements profiles and appending test results to previous data records
- Automated sound level documentation and high resolution wav-file recording in 24 bit / 48 kHz format to SD Card



XL2 Screenshot Sound Level Meter

XL2 Analyzer Functions

- Sound pressure level SPL for industrial sound pollution monitoring
 L_{Aeq} (= averaged sound level with A-weighting)
 L_{Cpeak} (= peak sound level with C-weighting)
- Stack Light
 Alarms at exceeding sound levels, thus employees near the test station are notified immediately.
- Noise exposure level $L_{EX,8h}$

The Noise at Work Directive 2003/10/EC reduces the risk of hearing damage for employees. The action limits are

	$L_{EX, 8h}$	L_{Cpeak}	Action
Lower limit value	80 dB(A)	135 dB	recommend wearing hearing protectors
Upper limit value	85 dB(A)	137 dB	hearing protectors must be worn and noise level reduced as possible
Exposure limit	87 dB(A)	140 dB	employee with hearing protectors shall never exceed this limits



Stack Light alarms at exceeding sound levels

Determination of Noise Exposure Level $L_{EX,8h}$

- At steady noise (applies for L_{AS} deviation < 5 dB): Measure the L_{Aeq} over a few minutes, the resulting L_{Aeq} represents the noise exposure level of the complete 8 hours period $L_{EX,8h} = L_{Aeq}$.

The following formula applies for a daily exposure time \neq 8 hours: $L_{EX,8h} = L_{Aeq} + 10 \times \log (T / 8 \text{ hours})$

- At steady noise with stepwise level variations (applies for steady noise at clearly distinguishable levels): Measure the L_{Aeq} at the different levels and note the corresponding exposure time. Enter all data in the NTi Audio noise exposure level post processing form; the $L_{EX,8h}$ will be calculated and displayed.
- At varying noise levels $L_{EX,8h} = L_{Aeq}$ measured for 8 hours.

Order Information

	NTi Audio #
XL2 + M4260, Class 2	600 000 340
XL2 + M2210, Class 1 frequency response	600 000 350
Stack Light	600 000 381/382



Exel Occupational Health Set

For more information please visit www.nti-audio.com/exel.