



The Evron Centre, John Street, Filey,  
North Yorkshire, YO14 9DQ  
Tel: +44 (0) 1723 518011  
Fax: +44 (0) 1723 518043  
Email: sales@pulsarinstruments.com  
Web: www.pulsarinstruments.com

## **Pulsar 5/7 Series for Noise at Work**

- Simple and user friendly
- Compact with robust construction
- Compliance to all the appropriate standards

Industrial and environmental sound monitoring situations have exacting requirements of sound level meters. That is why Pulsar Instruments produce the Series 5 & 7 digital sound level meters that are designed to meet the needs of the professional whilst being simple and user friendly enough for the new user. The use of simple switches for most functions means that making initial measurements and flicking between different settings is child's play, there are no complex menus to learn and switching between different frequency and time weightings is as easy as turning on a light.

Pulsar sound level meters are housed in durable die-cast metal cases, this minimises the effects of electro-magnetic radiation and makes them robust enough to withstand industrial and factory environments. Pulsar sound level meters are either Type 1 or Type 2 dependant upon the microphone used. Type 1 instruments have a removable pre-amplifier and so have the added convenience of being able to use them with an extension cable. This is recommended as an extension cable prevents interference of sound waves that are reflected off the user and the casing of the sound level meter, thus increasing accuracy.

Pulsar sound level meters conform to all the appropriate British, European and International standards. The Type 1 instruments conform to the precision grade whilst the Type 2 to the general-purpose grade of IEC 60651 or IEC 60804. Filters used in the octave analyser also conform to the relevant standards.

Pulsar Instruments have been at the forefront of sound level meter design and construction for over 30 years, making them one of the oldest manufacturers in the world. Whatever your needs may be, there is an instrument in the series to suit them, from a reputable and respected company.



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## Pulsar 5/7 Series for Noise at Work

### Pulsar 51 & 52

These instruments are ideal for measuring general noise levels to identify whether a site is in need of further investigation as well as for monitoring problematic areas.

These instruments are available in both Type 1 (precision grade) Pulsar 51 and Type 2 (general purpose) Pulsar 52.



### Pulsar 71 & 72

These instruments were designed with National “Noise at Work” regulations in mind; they have the capability to measure the Equivalent Continuous Level or  $L_{eq}$  as well as Peak sound level. These instruments can also measure the three action levels simultaneously, making them one of the best tools for ensuring that you are not breaking the noise at work regulations, thus helping to prevent your employee’s hearing from being damaged and the company from expensive liability claims.

These instruments can be used to allocate hearing defenders, using the HML method. The Pulsar 71 conforms to Type 1 whilst the Pulsar 72 conforms to Type 2.



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## **Pulsar 5/7 Series for Noise at Work**

### **Pulsar 73 & 74**

These instruments have been developed with not only Noise at Work regulations in mind, but also hearing defender selection. These instruments can measure all three action levels simultaneously and with an octave filter set built in, it allows the user to measure the noise level in each of the frequency bands. This can then give the user the momentary, average and maximum level in each octave, enabling them to decide which is the best type of hearing defender needed.

The Pulsar 73 meets the precision instrument standard while the Pulsar 74 is classed as general purpose.

### **Noise at Work**

These regulations require the work place to be surveyed regularly to identify harmful noise levels and then to determine the exposure of each individual employee. This has to be done in terms of  $L_{eq}$ ,  $L_{EP,d}$  and Peak levels. If a hazardous situation is identified it is then necessary to take immediate action to protect any employees who might be exposed. The best short term action is to supply hearing defenders; it can be very easy to choose the wrong hearing defenders, ones that over protect the employee allowing the comfort and utilisation factors to decline or worse, ones that under protect. Noise is made up of different frequencies and it follows that there are different hearing protectors available that work better at some frequencies and not so well at others. If the employer wants to make accurate and effective decisions to protect both the employee's hearing and to prevent compensatory claims, then here at Pulsar we have the resources and the equipment available to provide the right answers!





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## **Pulsar 5/7 Series for Noise at Work**

### **Ordering and Accessories**

We usually supply all of the sound level meters as complete kits and these contain the sound level meter, acoustic calibrator, manuals and windshield in an attaché case; to order kits simply put 'kit' in front of the Pulsar number, for instance the Pulsar 74 becomes Kit 74.

The sound level meters can be ordered individually, in which case the protective carrying case (C2) is recommended. To obtain the full benefit of the Type 1 sound level meters a 2m extension cable (CB2) is recommended.

An acoustic calibrator (Pulsar 100 or 101) should always be used before and after any measurement, not because sound level meters drift, but simply there is no other way of being sure that the meter is accurate during the measurement.



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## Specification

Common To All Instruments		Pulsar 71 & 72	
Standardisation	IEC 60651 (BS EN 60651) Type 1 or Type 2. IEC 60804 Type 1 or Type 2 (Pulsar 71 – 74). IEC 61672 (2001 draft) Class 1&2	Functions	*As Pulsar 51 & 52 plus Equivalent Sound Level, $L_{eq}$ Equivalent Personal Daily Noise Exposure, $L_{EP,d}$ True Peak (C weighted) SPL or $L_{max}$ , $L_{eq}$ and Peak (C) all measured concurrently
Weightings	Frequency: A & C Time: F (Fast), S (Slow) & I (Impulse)	Range	<b>P71</b> 27-140dB(A), 36-140dB(C) and 60-143dB(C) Peak <b>P72</b> 32-140dB(A), 60-140dB(C) and 60-140dB(C) Peak
Display	3½ digit LCD with overload, under range, over range, low battery, display hold	Physical	<b>P71</b> 325x75x26mm 515g <b>P72</b> 230x75x26mm 460g
Outputs	AC 2.2 volts fro FSD and log DC at 25mV/dB with continuous range from 25 to 140dB	* No back light or battery level indicator	
Environmental	Temperature from –10°C to +50°C Humidity from 10 to 95% RH Non-condensing	<b>Pulsar 73 &amp; 74</b>	
Power	2 x 6LR61 9v batteries to provide over 40 hours continuous (broad band) operation	Standardisation	Filters are to IEC 61260 and IEC 225
Pre-amplifier	Type 1 Removable Type 2 Fixed as standard	Functions	As Pulsar 71 & 72
<b>Pulsar 51 &amp; 52</b>		Frequency	A, Lin and 10 octave bands from 31Hz-16kHz. C for $L_{pk}$
Functions	Sound Level SPL Maximum Sound Level $L_{max}$ Display Hold Battery Level Display Backlight	Amplitude	True energy integration without time weighting (Q=3)
Ranges	<b>P51</b> 25-140dB(A) and 43-140dB(C) for SPL and $L_{max}$ <b>P52</b> 32-140dB(A) and 43-140dB(C) for SPL and $L_{max}$	Ranges (Broadband)	<b>P73</b> 27-140dB(A), 47-140dB(Lin) <b>P74</b> 32-140dB(A), 50-140dB(Lin) Both 60-143dB(C) for $L_{pk}$
Physical	<b>P51</b> 325x75x26mm 505g <b>P52</b> 255x75x26mm 455g	Physical	<b>P73</b> 325x75x26mm 520g <b>P74</b> 255x75x26mm 465g