

# dB420

## Sound Level Sensor

The dB420 Sound Level Sensor is used in industrial areas to measure sound levels. It is an aid for the occupational health & safety manager, providing continuous measurements of sound levels in working places.

The Sound Level Sensor has an industry standard, 3 wire 4-20mA interface that can be used on PLC's and telemetry systems.



### KEY FEATURES

- A-weighted sound measurement
- Measurement range of 30dB to 120dB
- Visual alarm indication
- Ruggedized design
- Stainless steel mesh filter

### APPLICATIONS

- Industrial plants
- Workshops
- Mining
- Noisy environments

### ORDERING INFO

Part Number  
SP01155

Description:  
dB420 Sound Level Sensor with visual alarm

# dB420 Sound Level Sensor

## FUNCTIONALITY

- The dB420 is a sound level sensor that uses an electret capacitive microphone to measure sound levels. The microphone output passes through an A-weighted bandpass filter, to simulate the sound pressure sensitivity of the human ear.
- The dB420 has a 3 wire 4-20 mA industry standard electrical output, making it compatible with any system supporting 3 wire 4-20mA signals, including SL2010 Transceiver devices.
- The dB420 enclosure has IP 65 ingress protecting against dust and water, but the microphone port is only protected by a dust cover. The microphone port has an IP rating of IP53 with stainless steel mesh filter, which implies protection against dust and vertical water drops with the unit tilted up to 60° from the vertical.



## MECHANICAL SPECIFICATIONS

Physical Dimensions: 210H x 170W x 80H mm

Weight: ± 1.3 kg

## SPECIFICATIONS

Measuring Range: 30 – 120dB

Analogue Output Signal: 4-20 mA

Maximum Load Resistance: 800 ohm @ 24VDC

Frequency Weighting: A-weighting

Frequency Range: 20Hz to 12.5kHz

Sound Level Accuracy: ± 0.5dB @ 94dB 1kHz

Visual Alarm Level: 85dB and above

Supply requirements: 15 - 30VDC  
30mA @ 24VDC

Analogue Output Scaling: 4 mA – 30dB  
20 mA – 120dB

Warm Up Time: < 30 sec

Life Expectancy: Up to 10 years

Calibration Frequency: Not required

## ENVIRONMENTAL SPECIFICATIONS

Water and Dust: IP 53

Temperature: -10 °C to +55 °C