Indoor air quality report

Report generated for period 24/06/24 to 16/10/24

AIRTHINGS FOR BUSINESS

The Jo Cox Centre

Address
Queensgate
Huddersfield HD1 3DH
UK

Building type
School

Building year
2022

Ventilation
Natural

Opening hours

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
07:00 - 17:00	07:00 - 17:00	07:00 - 17:00	07:00 - 17:00	07:00 - 17:00	07:00 - 17:00	07:00 - 17:00

Average hourly measurements during opening hours

482ppm CO2

49% Humidity

26% Rel light

N/A/10 Mold

5µg/m³ PM1

5µg/m³ PM 2.5

47dBA Noise

23° Temp

542µg/m³ VOC

This indoor air quality report presents the quality of the air in a home, school, office, or other building environments. The recommended thresholds are based on guidance from the WHO and national agencies. Measurements have been made using Airthings indoor air quality monitors. The highest and lowest measurements are from the source data and not averages.

AIRTHINGS FOR BUSINESS

CO2

- Normal level < 800ppm
- Action level 800ppm < 1000ppm
- Warning level 1000ppm

Average within opening hours
482ppm

Average value
482ppm

Carbon dioxide (CO2) is an important consideration when it comes to comfort and productivity. Air with high levels of CO2 can lead to difficulty concentrating, decreased cognitive ability, and fatigue. Typically, CO2 levels outdoors are around 400 parts per million (ppm). Concentrations below 800 ppm are considered ideal for a healthy and productive workspace. To reduce your CO2 levels increase space ventilation.

Values within opening hours	Average	Lowest measurement	Highest measurement
Christian / Multi-Faith room 1 Reception	**488** ppm	**407** ppm	**1319** ppm
Christian / Multi-faith Room 2 Other	**484** ppm	**410** ppm	**1284** ppm
Congregation Hall Other	**465** ppm	**406** ppm	**980** ppm
Entrance Reception	**475** ppm	**420** ppm	**690** ppm
Female Prayer Room Other	**498** ppm	**412** ppm	**1399** ppm

Humidity

- Warning level < 25%
- Action level 25% < 30%
- Normal level 30% < 60%
- Action level 60% < 70%
- Warning level 70%

Average within opening hours
49%

Average value
49%

Humidity has a significant impact on comfort, respiratory health, and infectious disease transmission. Humidity levels between 30-60% are considered optimal. This range is recommended especially for those with allergies, asthma, or other respiratory illnesses. Maintaining humidity within these levels can also minimize the growth and spread of mold, viruses, and bacteria.

Values within opening hours	Average	Lowest measurement	Highest measurement

Christian / Multi-Faith room 1 Reception	49 %	30 %	74 %
Christian / Multi-faith Room 2 Other	47 %	27 %	74 %
Congregation Hall Other	50 %	29 %	73 %
Entrance Reception	47 %	30 %	64 %
Female Prayer Room Other	51 %	33 %	71 %

Rel light

Normal level
<

Average within opening hours
26%

Average value
16%

Light levels (relative light intensity) can be useful to get an overview of light level trends inside a building. Note that the light sensor is primarily designed for capturing the wave gesture in front of the device, so the sensor is not very exposed to light in general and does not have a cosine receptor to capture light from all angles. This is why we present the light levels as a relative percentage.

Values within opening hours	Average	Lowest measurement	Highest measurement
Christian / Multi-Faith room 1 Reception	28 %	0 %	52 %
Christian / Multi-faith Room 2 Other	23 %	0 %	47 %
Congregation Hall Other	19 %	0 %	44 %
Entrance Reception	40 %	2 %	51 %
Female Prayer Room Other	19 %	0 %	42 %

Mold

- Normal level < 3/10
- Action level 3/10 < 7/10
- Warning level 7/10

Average within opening hours
N/A/10

Average value
N/A/10

The mold risk sensor uses an algorithm based on the temperature and humidity sensor to measure how fast mold can grow under the current conditions.

Values within opening hours	Average	Lowest measurement	Highest measurement
Entrance Reception	No data in selected time range		

PM1

- Normal level < 10µg/m³
- Action level 10µg/m³ < 25µg/m³
- Warning level 25µg/m³

Average within opening hours
5µg/m³

Average value
4µg/m³

PM is often brought into the building from outside. Exposure can trigger asthma and allergies, as well as cause irritation of eyes, ears, nose and throat. High levels can indicate problems with your filters or ventilation system.

Values within opening hours	Average	Lowest measurement	Highest measurement
Christian / Multi-Faith room 1 Reception	**4** µg/m³	**0** µg/m³	**34** µg/m³
Christian / Multi-faith Room 2 Other	**4** µg/m³	**0** µg/m³	**36** µg/m³
Congregation Hall Other	**6** µg/m³	**0** µg/m³	**48** µg/m³
Female Prayer Room Other	**4** µg/m³	**0** µg/m³	**31** µg/m³

PM 2.5

- Normal level < 10µg/m³
- Action level 10µg/m³ < 25µg/m³
- Warning level 25µg/m³

Average within opening hours
5µg/m³

Average value
5µg/m³

PM is often brought into the building from outside. Exposure can trigger asthma and allergies, as well as cause irritation of eyes, ears, nose and throat. High levels can indicate problems with your filters or ventilation system.

Values within opening hours	Average	Lowest measurement	Highest measurement
Christian / Multi-Faith room 1 Reception	**4** µg/m³	**0** µg/m³	**35** µg/m³
Christian / Multi-faith Room 2 Other	**5** µg/m³	**0** µg/m³	**37** µg/m³
Congregation Hall Other	**6** µg/m³	**0** µg/m³	**48** µg/m³
Female Prayer Room Other	**4** µg/m³	**0** µg/m³	**32** µg/m³

Noise

Average within opening hours
47dBA

Average value
46dBA

Noise levels (dynamic range 35 - 120 dBA SPL) can be useful to get an overview of noise trends inside a building.

Values within opening hours	Average	Lowest measurement	Highest measurement
Christian / Multi-Faith room 1 Reception	**48** dBA	**38** dBA	**92** dBA
Christian / Multi-faith Room 2 Other	**47** dBA	**38** dBA	**93** dBA
Congregation Hall Other	**48** dBA	**39** dBA	**94** dBA

Female Prayer Room Other	**46** dBA	**36** dBA	**68** dBA

Temperature

- Warning level < 18°
- Normal level 18° < 25°
- Warning level 25°

Average within opening hours

23°C

Average value

23°C

The temperature is an important component of occupant comfort and productivity. The optimal temperature is in the range of 18-25°C or 64-77°F. An indoor temperature either above or below this range will reduce the overall indoor air quality rating.

Values within opening hours	Average	Lowest measurement	Highest measurement
Christian / Multi-Faith room 1 Reception	**22.4** °C	**16.5** °C	**27.9** °C
Christian / Multi-faith Room 2 Other	**23.4** °C	**18.1** °C	**28** °C
Congregation Hall Other	**21.8** °C	**17.7** °C	**25.6** °C
Entrance Reception	**23** °C	**19.4** °C	**26.6** °C
Female Prayer Room Other	**22.5** °C	**19.8** °C	**25.9** °C

VOC

- Normal level < 565µg/m³
- Action level 565µg/m³ < 4545µg/m³
- Warning level 4545µg/m³

Average within opening hours
542µg/m³

Average value
597µg/m³

Total Volatile Organic Compounds (VOCs) are a diverse group of chemicals that are commonly found in the air in homes and offices. Common sources of VOCs include paints (such as formaldehyde), lacquers, cleaning supplies, furnishings, office equipment, glues, alcohol, and human breath. Moderate levels of exposure can cause headaches, fatigue, eye and throat irritation, and other symptoms that can affect comfort and concentration. In order to reduce the VOC levels, improve ventilation and identify and remove the potential sources.

Values within opening hours	Average	Lowest measurement	Highest measurement
Christian / Multi-Faith room 1 Reception	**670** µg/m³	**105** µg/m³	**3315** µg/m³
Christian / Multi-faith Room 2 Other	**747** µg/m³	**105** µg/m³	**4102** µg/m³
Congregation Hall Other	**560** µg/m³	**105** µg/m³	**2319** µg/m³
Entrance Reception	**290** µg/m³	**105** µg/m³	**937** µg/m³
Female Prayer Room Other	**445** µg/m³	**105** µg/m³	**2273** µg/m³

Generated: 17/10/24 16:01
Measurement by: Lucy Golding
Report id: 5c2ab4a8-acb7-4de9-a906-48486fd6e3a0
Measurement devices: Airthings Space Pro, Airthings Space Plus

Comment: