



VCAS 200 Warning Only System Overview

Vehicle Collision Avoidance System

VCAS - a vehicle safety enhancement system that warns operators of immediate dangers within a predetermined range.

VCAS provides the assurance of safety when a vehicle operation commences, the system cannot be turned off or ignored by operators unfamiliar with its features.

Utilising industrialised ultrasonic technology, VCAS produces audible and visual warnings if objects are detected within pre-configured primary sensing zones.

VCAS 200 Three Sensor Warning Only

An industrialised object detection system monitoring to a maximum of 4metres from any sensor at any one time. When mounted on a vehicle in a predetermined configuration a 4metre primary sensing zone can be achieved, providing effective visual and audible warnings to the vehicles operator, alerting him of immediate dangers.



Powerful non-contact sonic sensing technology - max range 6 metres.

Speech alert, 85db tone sounder and high intensity LED warnings.

'Always on' transparent operation, eliminates operator interaction.

Low maintenance - insensitive to dust, humidity and air turbulence.

VCD103 dash display



High intensity status lights
Object Detected

Audible warning - speech alarm
Caution Object Detected

IP68 Waterproof

Vehicle Collision Avoidance System

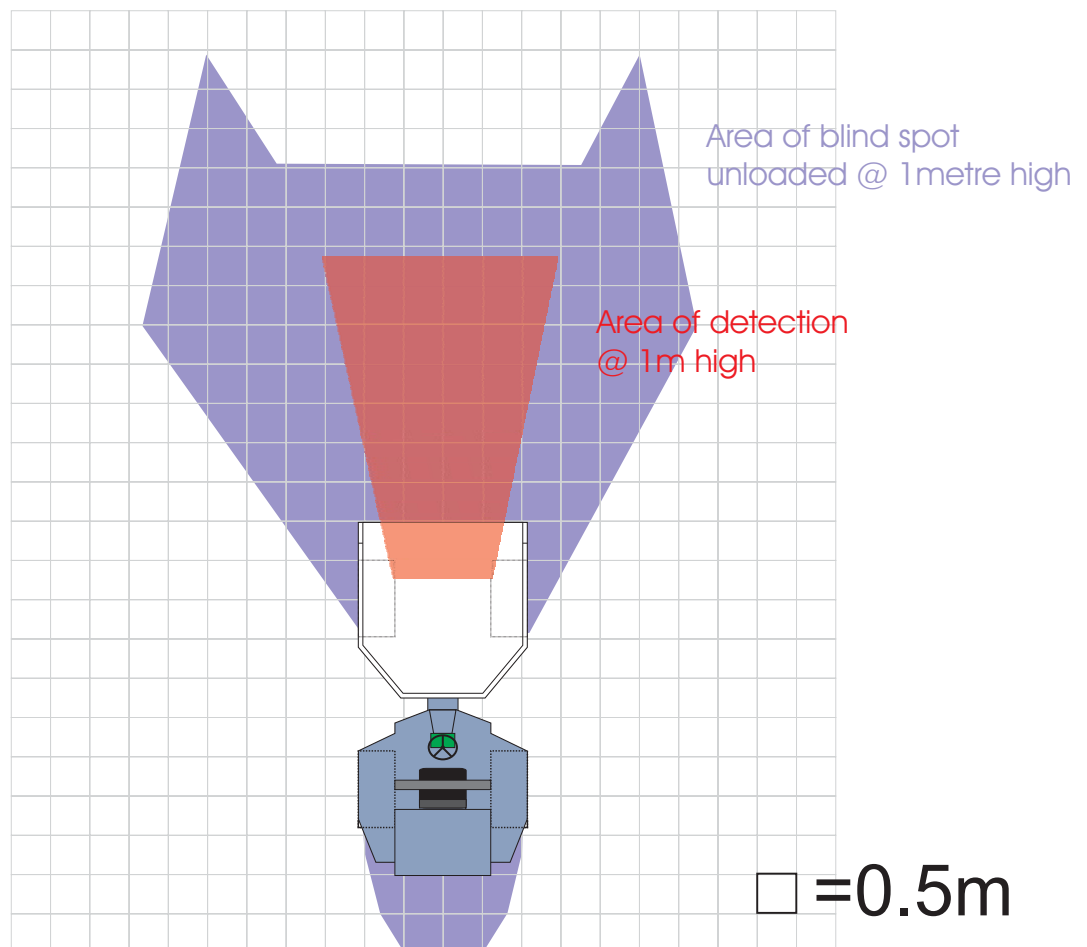
VCAS 200

VMS600 Industrialised ultra-sonic sensors. Over 1000 sensors installed in road construction applications worldwide, including the extreme harsh environment of the Middle East.

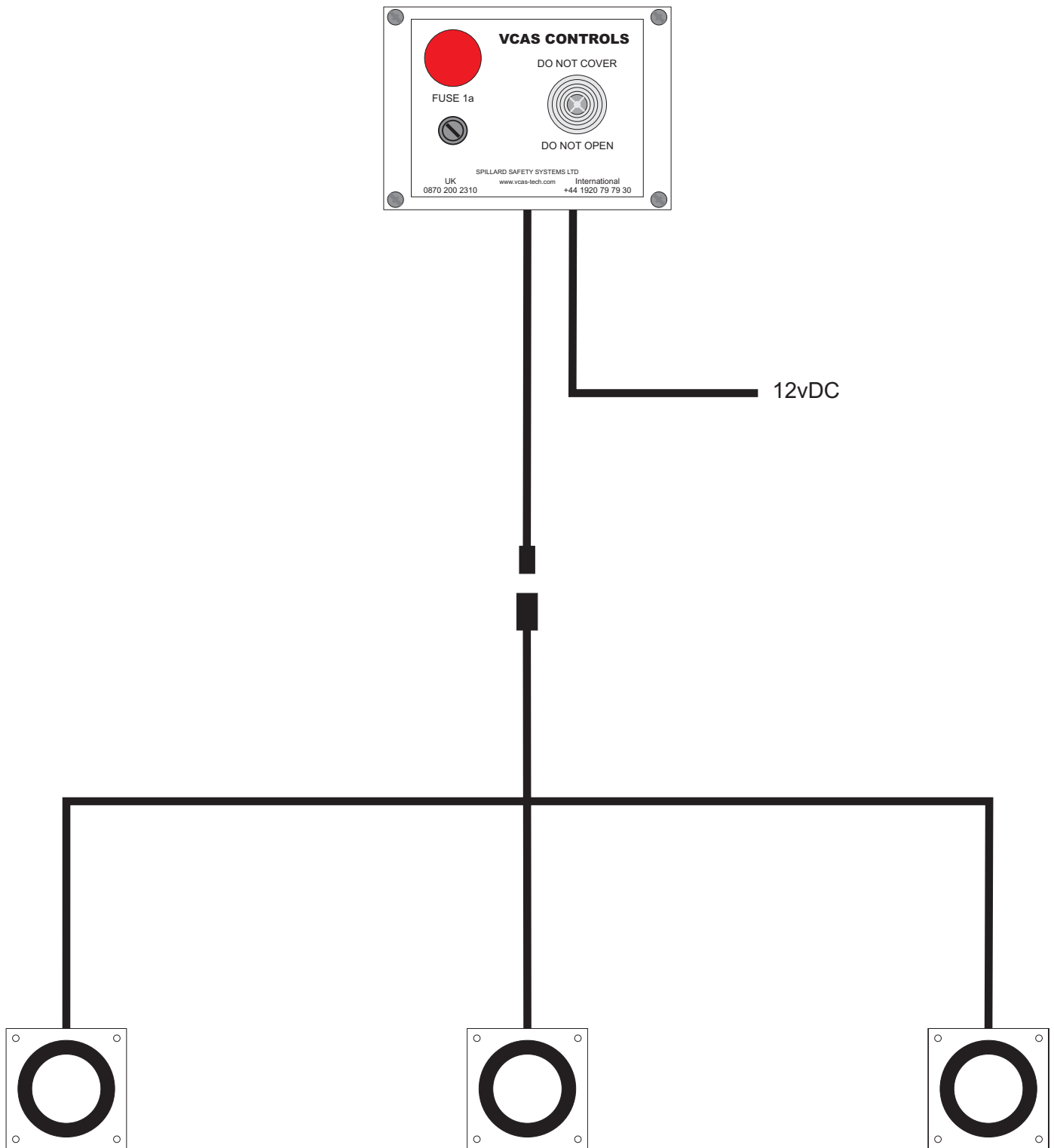


VMS600 sensors mounted in bespoke enclosures specific to each application.

Detection Zone



Vehicle Collision Avoidance System

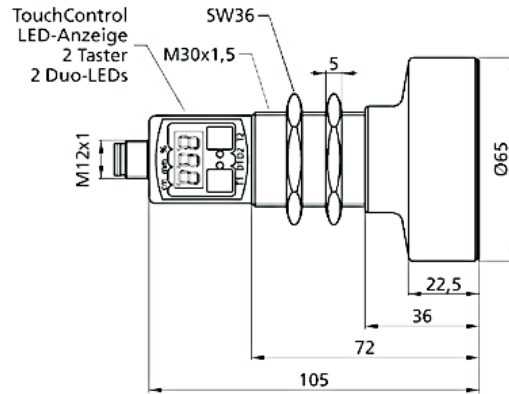


Vehicle Collision Avoidance System

Ultra Sonic Sensor



Dimensions



Features

Technical Data

General Specifications

Sensing Range	600 6000mm
Unusable area	0 600mm
Standard target plate	100mm x 100mm
Transducer frequency	approx. 80 khz

Electrical Specifications

Operating Voltage	9 -30vdc, ripple 10%
No-load supply current	<80ma

Input

Input type	1 pulse output for transmitter pulse, activation through open collector npn < 1v :emitter active > 4v :emitter inactive
Pulse length	50 700 µs (typ.500 µs)
Pause length	>50 x pulse length

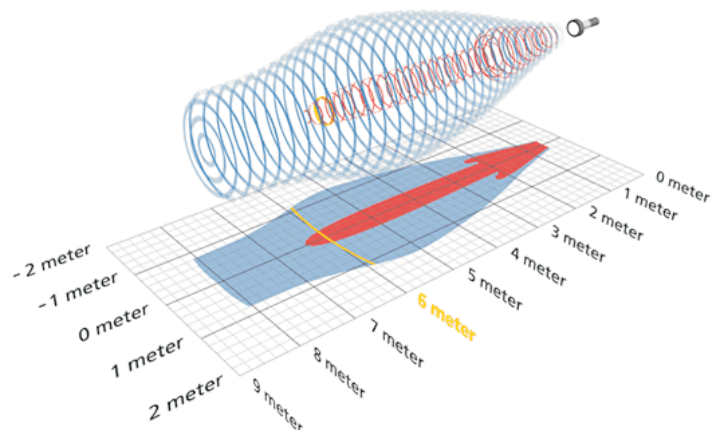
Output

Response time	240ms
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Mechanical specifications

Protection degree	IP67
Connection	5-pin M12
Material	
Housing	PBT
Transducer	Brass sleeve, nickel-plated (1) polyurethane foam
Mass	270g

Detection Zone



VCAS Limitations

VCAS is an aid to safety, and should be used in addition to your safe system of work.

The operator should be aware of the benefits and limitations of this system. The daily check procedure must be followed to determine operation state of the system before starting his daily shift.

Sensors will not work if an obstruction is covering the sensing face e.g. mud or concrete.

Sensors detect 4metres in front of the vehicle, the area covered is dependant upon the mounting position/angle of each sensor, dead zones may be created due to sensing shape.

The response times from both sensor and operator are reduced when speed is increased.

Damage to a sensor will start to deteriorate the sensing capabilities of the system.

The speaker will not be heard if obstructed or covered.

All faults or damage must be reported immediately.

VCAS Daily Test Procedure

Dash Board

- 1 - Place a cone or similar at position . Approximately 2metres away from the front of the skip.
- 2 - Turn the dumptruck ignition on - DO NOT START.
- 3 - Ensure the red light is illuminated and the speech alarm can be heard.

Sensors

- Testing individual sensors
- Standing at position 2 hold the test target in front of the first sensor, then hold the target in front of the second sensor, then repeat steps standing in position 3 ensuring there s an audible alert from all sensors

