

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 secondary or primary sensing zones.

Sensing zones are active dependant on direction of travel if an object is detected within either primary or secondary zones a visual warning is illuminated on the front or rear of the vehicle and an audible warning is given in the cab. A further audible warning is produced on the outside of the vehicle requesting that the object '**move away**' if the object is detected within the primary and final zone the message is more intense and the green light on the cab display is extinguished.

If detection is made within the primary zone the vehicle, as an option can be brought to a controlled halt. Travel can only recommence once neutral is selected. If the primary warning is still active then the vehicle will remain in the stopped position.

A management facility is available to override either the audible warnings to eliminate noise pollution problems associated with night working or the braking/auxiliary system for either loading or operation in confined spaces. If either overrides are selected an external warning is illuminated.

A failsafe system has been designed into all VCAS units, the vehicle cannot be operated if any cables are broken or disconnected or if the system has lost power. The failsafes can also be used for anti-theft measures



VCAS has been designed for use in industrial applications with heavy duty military spec connectors used through out.

Long life high intensity LED warning lamps are mounted front, rear and within the cab display unit



Vehicle Collision Avoidance System

VCAS 6000

Vehicular and personnel warning system for mobile plant

Powerful non-contact sonic sensing technology - range 6 metres

Active 'auto stop' and passive warning modes - override for 'close up' working

Speech alert, 1 05dB tone sounder and high intensity LED warnings

'Always on' transparent operation eliminates operator interaction

Programmable operating zones - stopping primary, warning secondary zones

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

VCD201 in-cab display



High intensity status lights

- Forward
- Reverse
- Night Silent
- Brake Override
- Fail warning

Adjustable audible warning

Management Override

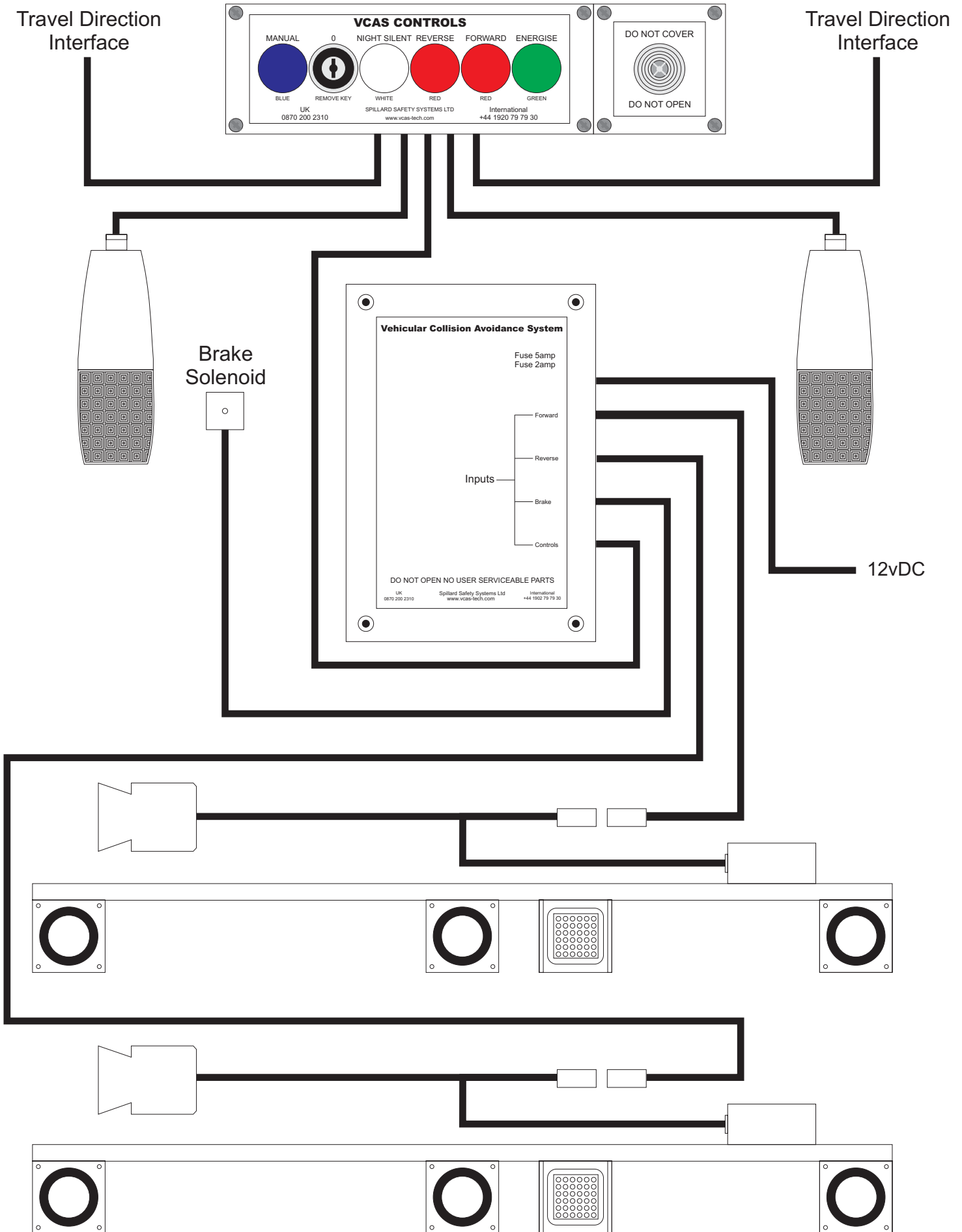
VBC300 3 way sensor bar



VCB001 VCAS control box



Vehicle Collision Avoidance System

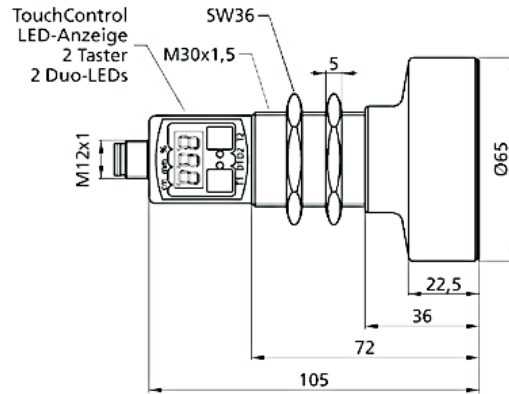


Vehicle Collision Avoidance System

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 ... 700µs (typ.500 µs)
Pause length	>50 x pulse length

Output

Response time	240ms
---------------	-------

Mechanical specifications

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

Detection Zone

