

Intelligent Addressable Duct Detector

Features

- Easy mounting of sampling tube
- Single pipe/air sampling system
- Each 40950 system does not require more than one sampling tube for supply and return of air
- Duct detectors can operate in air speeds ranging from 0.5 m/s to 20 m/s

Application

The 40950 series of duct smoke and heat detectors systems provide early warning of smoke and increase in temperature by continually sampling air movement within heating and ventilation ducts in industrial and commercial premises.

40950 systems provide additional safety features such as switching facilities to shut-down associated devices on a building's HVAC network. This allows control of fans and dampers to prevent the spread of smoke from the duct into other areas of the building.

40950 duct detection systems are suitable for installation in ducts with low airflow and with air speeds ranging from 0.5m/s to 20m/s. The detector housing made of ABS plastic (available in blue colour) and the sampling tubes made of aluminium provide high strength, durability, and resistance to chemicals, which enables the installation of 40950 devices in challenging indoor and outdoor environments.

Physical Construction And Assembly

The duct detector system comprises an enclosure for a intelligent smoke or heat detector, and an air sampling tube. Air in the ducts is sampled by the sampling tube/venturi pipe, which extends from the detector housing into the duct.

The 40950 range of devices are installed in the following configurations according to various applications: 40950



for intelligent detectors.

40951 for intelligent detectors with relay contact activated directly by the detector; and 40952 for intelligent wireless detectors.

VELOX intelligent smoke and heat detectors can be easily mounted in the 40950 system by placing the detector centrally on the mounting base and gently rotating it clockwise till it is aligned with the indicators on the base.

The detector housing is fitted with a thin, red ribbon which acts as a flow indicator; when the detector is correctly installed, the ribbon is bent outwards due to the airflow. If the ribbon does not move to indicate sufficient airflow, a booster fan is installed on the sampling tube.

INSTALLATION & MOUNTING

The technical specifications of the 40950 assembly depend on the type of detector used and the sampling tubes.

It is recommended that the 40950 be mounted at equal distances from heating/ cooling equipment, humidity- or flow-monitoring devices.

The 40950 housing is secured onto the duct by three locking screws. The base of the device is shaped in the form of an arrow, which indicates the alignment of the 40950 housing, that is, in the airflow direction.

The length of the Aluminium sampling tube can be shortened according to the diameter of the duct. The sampling tube must penetrate the whole duct; however it must not protrude more than 30mm through the duct wall.

When mounting the duct detectors in cold regions and in environments with large temperature variations, use an insulation cover of 100–200 mm. In such cases, the detector becomes hidden beneath the insulation cover, and a 3330 remote indicator lamp must be used to locate the detector. In outdoor environments, use a protection cover for the detector housing.

A filter must be attached to the duct detector for operation in dust environments. A flexible 40950 BRACKET enables mounting of the 40950 housing on rectangular and circular ducts with diameters as small

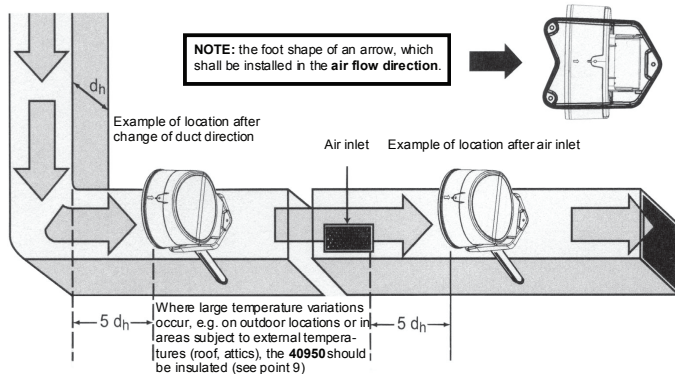
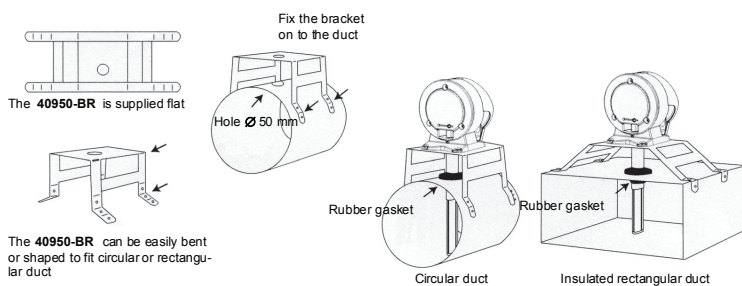
Approvals & Compliance With Standards

The entire VELOX range of fire detection devices confirms to BS5839 parts 1 and 4, and EN54 parts 4 and 7 standards. The detectors have the BSI Kitemark certification and fully satisfy the highest requirements of electromagnetic compatibility (EMC) and resilience to humidity, vibration, temperature, and smoke levels.

GENERAL OVERVIEW

40950-BR FOR CIRCULAR OR RECTANGULAR DUCTS

Using the **40950-BR** the diameter of the duct can be as small as 100 mm.



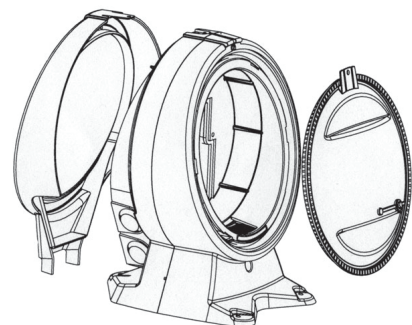
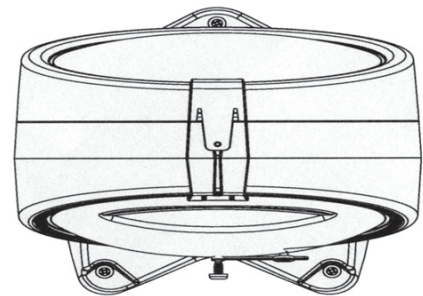
Architectural & Engineering Specifications

ATEİS Variable Time Communication Protocol enables secure data transmission over long distances. Advanced detection algorithms ensure thorough evaluation of the environments in which the detectors are placed, and thus, fire signals are activated only when smoke is actually present.

Each fire detection loop can accommodate up to 240 fire alarm devices with in-built isolators, and the loop length can extend up to 2 km depending on load and loop length calculations.

The 'Automatic and manual addressing features' feature allows automatic addressing of the detector from the fire alarm control panel, simplifying the commissioning process. 'Manual Addressing' allows setting new addresses to devices in a non-sequential manner. This allows the addressing to match site conditions or even allows the user to add more detectors to the loop at a later stage without the need to change or reassign addresses to all the devices.

Each device is equipped with an in-built isolator to minimize loss of communication in case of short circuits. Hence there's no need for additional isolators or base isolators, which can make the commissioning process a more difficult and costly task. For further cost reduction, devices can be supplied without isolators. In such cases, isolators will have to be installed on the loop.



Technical Specifications

Item	Specification Details		
Dimensions	180x183x235mm		
Weight	700g		
Airflow speed in duct	0.5m/s to 20m/s		
Operating voltage of booster fan	24V AC (separate external power supply)		
Lengths of air sampling tube	40950-06 0.6m	40950-15 1.5m	40950-28 2.8m
Diameter of drill hole on the duct	38mm for installation of air sampling tube without 40950 bracket 50mm for installation of air sampling tube with 40950 bracket or booster fan		
Approvals	EN54 parts 5 and 7		
Detectors compatible with 40950 housing VELOX analogue addressable smoke and heat detectors			
40910	40920	40930	
LV100	LV200	LV350	
WL100 *	WL200 *	WL350 *	

* wireless detectors

Order Codes

Part No.	Description
40950	Intelligent Addressable Duct Detector with Standard Base
40951	Intelligent Addressable Duct Detector with Relay Rase
40952	wireless intelligent Addressable Duct Detector
40950-06	0.6 meter Sampling Pipe
40950-15	1.5 meter Sampling Pipe
40950-28	2.8 meter Sampling Pipe
40950-BR	Installation Duct Detector Bracket
40950-SG	Duct Detector Spare Gasket
40950-DF	Duct Detector Filter

As our policy is one of constant product improvement the right is therefore reserved to modify product specifications without prior notice
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