

VESDA Pipe Fittings



Reliable smoke detection systems are dependent on a network of specialty piping that constantly and efficiently carry air samples from protected zones to highly sensitive detectors.

VESDA Pipe and Fittings are part of an integrated system manufactured from specialty plastics designed for use with most aspirating smoke detection systems, the VESDA system in particular.

The Concept

The quality of VESDA pipe has been specifically chosen to surpass the requirements for most systems and aims to provide:

- An easy and professional installation
- Committed customer service with full technical advice and support on design and installation
- Design verification using the very latest ASPIRE Pipe Modeling software
- Commissioning, advice, service, and system performance testing

The VESDA pipe range is based on pipework of a standard internal diameter (ID) of 21 mm.

VESDA aspirating smoke detection is an early warning system that detects fire in the incipient stages - before flames are visible - by detecting the products of pre-combustion in the air around the area about to ignite.

The VESDA detector family is the result of extensive research and development. Using unique detection principles, the detector provides a sensitivity range of 0.001% - 20% obscuration/m. It detects fire at the earliest possible stage and reliably measures very low to extremely high concentrations of smoke.

The VESDA system samples air from a fire zone for the presence of smoke. The air sampling system makes this possible by providing the means for transporting air from a fire zone to the detector.

The air sampling system is active, continuously drawing in air samples by means of an integral pump. It does not rely on air or heat currents in the vicinity of the detector transporting the smoke particles to the detector. The VESDA system can function effectively in all kinds of environments from high air flows to still air.

The network of sampling pipes to the detector is the key element in the performance of the detection system.

Air Sampling

Three basic sampling methods can be used in an VESDA system installation:

- Standard pipe sampling systems (below ceiling; in ceiling or floor void), Figure 1.
- Capillary tube sampling (concealed; above ceiling; within cabinets), Figure 2.
- Return air sampling (within duct; return air grille), Figure 3.

While each sampling method is suited to specific applications, more than one method is often effectively employed to monitor a firezone. In some applications - particularly those in which there is movement of high volumes of air - the most effective sampling network generally combines two methods to provide maximum coverage to a zone under all operating conditions.

Features

- An integrated CPVC Pipe & Fittings package designed for use with VESDA Aspirating Smoke Detection Systems
- Simplifies the selection of Pipe & Fittings to ensure the correct product is installed
- Simplifies specifiers' and installers' task and saves time and money

Figure 1: A typical below ceiling sampling installation

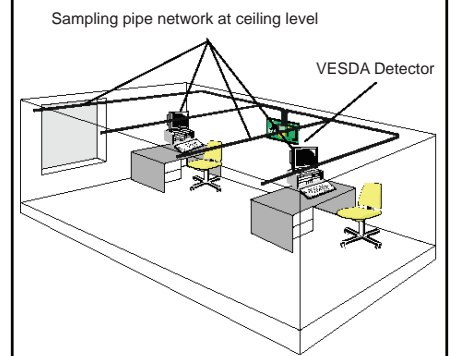


Figure 2: A typical concealed sampling installation.

The sampling point fitting places the sampling help more than 25mm (1 inch) below the ceiling

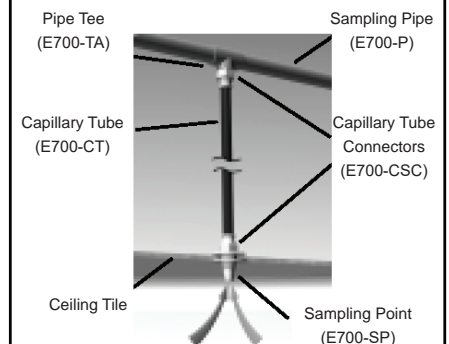
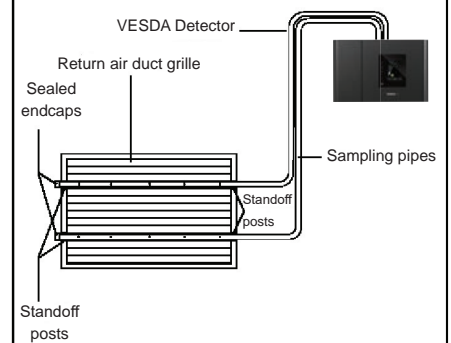


Figure 3: Sampling from a return air grille



VESDA®

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System Description

VESDA piping systems are produced from specialty thermoplastics that offer unique benefits. Piping systems are lightweight, and assembled easily in the field using inexpensive tools. The one-step solvent cement joining process ensures fast reliable connections. In addition to ease of installation, this unique piping system offers enhanced flow characteristics and exceptional fire performance properties.

The complete system includes all of the components necessary to install and test the system. This includes: pipe, a comprehensive range of fittings, capillary tube, a variety of sample point configurations, and sampling point labels.

Pipe Fittings Ordering Information

Part Numbers for System Components

1	E700-CSC	Capillary Sampling Connector for Capillary tubes
2	E700-CT	Capillary tube 5.2mm ID 8mm OD per metre
3	E700-EC	End Cap
4	E700-LB	Large Radius bend (150mm)
5	E700-PC	Pipe Clip single point fix
6	E700-PJ	Pipe junction fitting
7	E700-SB	Small Radius bend (90mm)
8	E700-SP	Sampling point for Capillary tube end
9	E700-SP-DCL	Sampling point decal (200 per roll)
10	E700-SPLG	Sampling point label GREY
11	E700-SPLR	Sampling point label RED
12	E700-SRB-SH	Sprinkler Head Base Assembly
13	E700-T	Pipe 25mm Tee Junction
14	E700-TA	Trunk Adaptor for capillary tubes
15	PIP-015	Flush Sampling Point - Head Only
16	059-001	Flush Sampling Point - Kit
17	VSP-610	Tamper Proof Sampling Point 25/27mm
18	VSP-620-02	Tamper Proof Sampling Point 8mm Cap
19	VSP-620-03	Tamper Proof Sampling Point 10mm Cap
20	VSP-820	ASD Purge Unit – Single Channel
21	VSP-850-G	Xtralis In-Line Filter (Grey)
22	VSP-860	Refrigerated Storage sampling Kit
23	VSP-870	In-Line Flow Restrictor Assembly
24	VSP-877	Flush Mount Sampling Point White
25	VSP-877-B	Flush Mount Sampling Point Black
26	VSP-877-G	Flush Mount Sampling Point Grey



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