FIRE SYSTEMS PRODUCTS

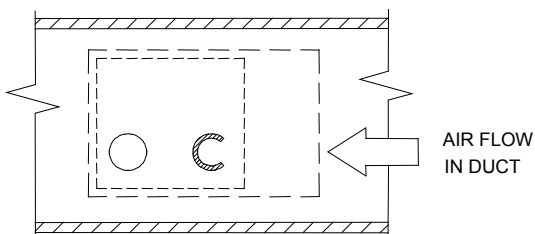# INFORMATION SHEET

DESCRIPTION

The D51B Duct Sampling Unit is designed to sample air in air conditioning ducts and pass it through a suitable smoke detector. The D51B is, by virtue of its universal design, able to accept a wide variety of bases and smoke detectors. This allows the D51B to be used in various locations, with either collective or analogue addressable systems, depending on the base and detector fitted. The standard range of bases include the 5B/M614, Z131A. The D51B is fixed on the outside of the duct to be sampled. This allows easy access for detector servicing and replacement of the dust filter. To cater for most duct sizes, sampling tube extensions are available in 3 metre lengths. The Tyco E500 Mk2 Series Remote Indicators can be used for remote indication of an alarm.

INSTALLATION
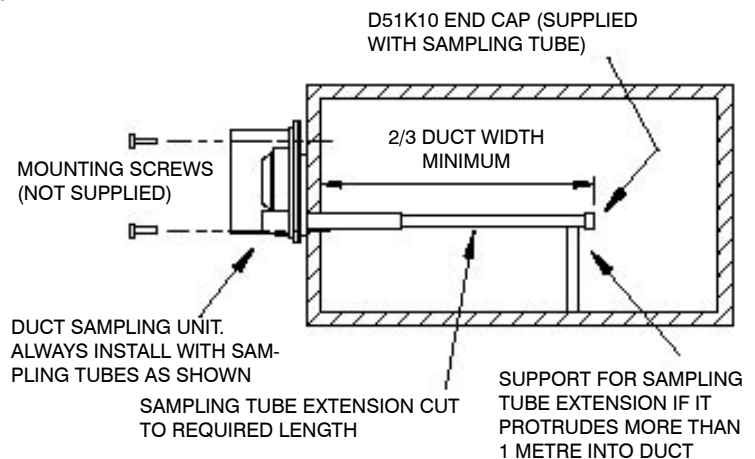
Mounting D51B on Duct
- Mark on duct – holes for sampling tubes, 122mm apart.
- Drill 2 holes 24mm in diameter.
- Mount D51B duct sampling unit oriented as shown.
- Mark on duct – mounting screw holes and fix housing firmly to duct.
- Insert sampling tube extension, tighten holding screw and refit filter.

SPECIFICATIONS

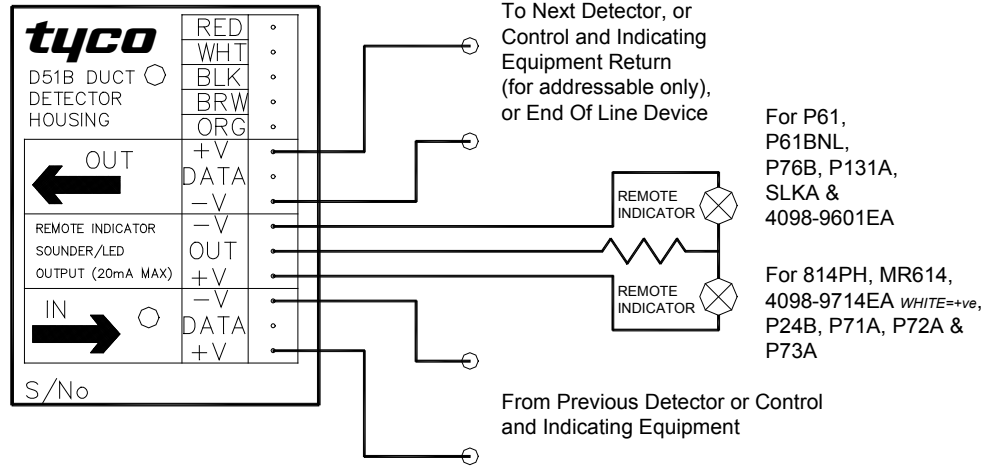|	
Duct Air Speed[1]	1m/s to 8m/s
Duct Width	1.8 metres maximum
Sampling Tube Length	0.160m to 3m
Remote Indicator	E500 Mk2 Series
Operating Temperature	-10°C to +55°C
SSL Listed	afp-728*

Part Numbers

D515B	DSU with Collective Base
D51L	Baffle - box of 10
D51F	Filter - box of 10
D51T3	3m Sampling Tube
D51K100	Plug - bag of 10

1. Recommended range

Sampling Tube Extension (supplied separately)

SECTION THROUGH DUCT.

ONLY ONE SAMPLING TUBE EXTENSION IS REQUIRED. SLOT IN TUBE MUST FACE AIR FLOW AS SHOWN (HOLDING SCREWS SUPPLIED)

AIR FLOW IN DUCT

D51K10 END CAP (SUPPLIED WITH SAMPLING TUBE)

2/3 DUCT WIDTH MINIMUM

MOUNTING SCREWS (NOT SUPPLIED)

DUCT SAMPLING UNIT. ALWAYS INSTALL WITH SAMPLING TUBES AS SHOWN

SAMPLING TUBE EXTENSION CUT TO REQUIRED LENGTH

SUPPORT FOR SAMPLING TUBE EXTENSION IF IT PROTRUDES MORE THAN 1 METRE INTO DUCT

D51B WIRING

All field wiring terminates in the red termination box through a cable gland that is supplied but not fitted. To fit the gland, drill a 16mm hole in the box at a convenient point. Take care to avoid damaging the termination board and components. Connect field wiring to the lever-actuated terminals as per table below. If circuit is:-

Collective: connect last detector to End Of Line Device.

Addressable Loop: connect last detector to Control and Indicating Equipment return.

Addressable Line: leave last detector 'out' terminals unconnected.

To Next Detector, or Control and Indicating Equipment Return (for addressable only), or End Of Line Device

For P61, P61BNL, P76B, P131A, SLKA & 4098-9601EA

REMOTE INDICATOR

For 814PH, MR614, 4098-9714EA *WHITE=+ve*, P24B, P71A, P72A & P73A

REMOTE INDICATOR

From Previous Detector or Control and Indicating Equipment

	D51 PCB Terminals	+V In	+V Out	+Remote	-V In -V Out	-Remote	Out Remote	Data In	Data Out
D51MX† 814PH/5B	**Base Terminal**	L1	L1	L1	L		R		
	D51 Wiring	Red Brown	Red Brown	Red Brown	Black		Orange		
D515B† MR614/5B	**Base Terminal**	L1	L2	L1	L		R		
	D51 Wiring	Red	Brown	Red	Black		Orange		
D51Z131† P131A/ Z131	**Base Terminal**	2	2		1	1	3		
	D51 Wiring	Red Brown	Red Brown		Black	Black	Orange		
4098-9601EA 4098-9788EA	**Base Terminal**	1	2		4	4	3		
	D51 Wiring	Red	Brown		Black	Black	Orange		
P24B/Z500	Base Terminal	+IN 3	+OUT 4	+OUT 4	-IN 1		-REM 6		
	D51 Wiring	Red	Brown	Brown	Black		Orange		
‡P71A/Z72	Base Terminal	3	3	3	6		4	1	1
	D51 Wiring	Red Brown	Red Brown	Red Brown	Black		Orange	White	White
P72A/Z72	Base Terminal	3*	3	3	6		4	1*	
	D51 Wiring	Red Brown	Red Brown	Red Brown	Black		Orange	White	
P73A/Z72	Base Terminal	1	1	1	6		3		
	D51 Wiring	Red Brown	Red Brown	Red Brown	Black		Orange		
P76B/Z72	Base Terminal	3	2		6	6	4		5
	D51 Wiring	Red	Brown		Black	Black	Orange		White

† Part number for D51B with factory wired base (does not include detector)

‡ P71A or P72A 3 wire system

* Link between terminals for 2 wire P72A only