

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 Speed¹
Duct Width
Sampling Tube Length
Remote Indicator
Operating Temperature

SSL Listed
Part Numbers

D515B D51L D51F D51T3

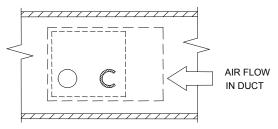
D51K100

1. Recommended range

1m/s to 8m/s 1.8 metres maximum 0.160m to 3m E500 Mk2 Series -10°C to +55°C afp-728*

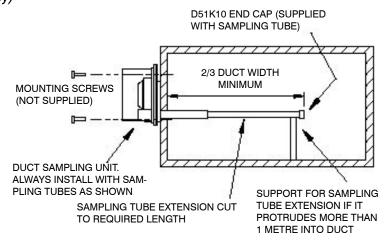
DSU with Collective Base Baffle - box of 10 Filter - box of 10 3m Sampling Tube Plug - bag of 10

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)



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:-

To Next Detector, or tyco Control and Indicating WHI Equipment Return BLK BRW D51B DUCT (for addressable only), DETECTOR or End Of Line Device For P61. HOUSING ORG P61BNL, OUT P76B, P131A, Data REMOTE INDICATOR SLKA & 4098-9601EA REMOTE INDICATOR SOUNDER/LED OUT OUTPUT (20mA MAX) For 814PH, MR614, +VREMOTE 4098-9714EA WHITE=+ve, INDICATOR Data P24B, P71A, P72A & P73A /No From Previous Detector or Control and Indicating Equipment

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.

| | 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 | | -кем 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)

^{*} Link between terminals for 2 wire P72A only



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[‡] P71A or P72A 3 wire system