

## Column Connection



To prevent detector contamination, we strongly recommend disconnecting the column from the detector during column bakeout procedures.

### Referenced mode

In the referenced mode, the column is connected to the Channel A inlet, and the carrier gas stream is split and used as a reference in channel B. The gas flow rate from both channels must be the same (flow balanced). This mode of operation provides the best baseline stability and the least background noise.

### Unreferenced mode

In the unreferenced mode, Channels A and B are used independently. One column connects to the Channel A inlet, and the other to Channel B. The carrier gas must be the same for both channels.

It is also possible to use only one channel with the other capped off, as long as the filament temperature control knob of the unused channel is set to zero.

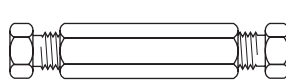
The unreferenced mode has certain limitations: there is a possibility of detector cross-talk (interference) if compound concentrations exceed 1%, and baseline drift and background noise are greater than with the referenced mode.

To make column connection as convenient as possible, each TCD is shipped with two Valco 1/16" unions (Product No. ZU1C) complete with nuts and ferrules (Product Nos. ZN1 and ZF1). Also included are two fused silica adapters (FSR1.8) for use with .53 mm ID wide bore capillary columns (.8 mm OD). Refer to the information below to determine the correct Valco fitting for use with other columns.

### Column Connection Fittings

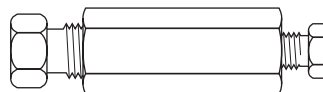
#### Packed Columns

A 1/16" packed column requires only the ZU1C which comes with the TCD. For 1/8" columns, order a ZRU21.



**ZU1C**

Used with 1/16" column



**ZRU21**

Used with 1/8" column