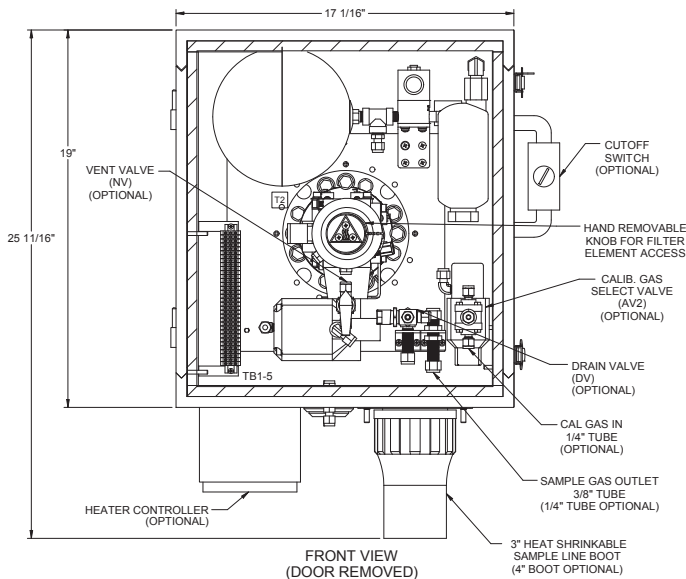


The Universal Analyzers Model 270F Flare Gas Probe Assembly is designed to extract sample gases from a flare exhaust line, filter it, and deliver it to a heated sample line for delivery ultimately to a gas analyzer. It is designed to be installed on sample stacks containing non hazardous gases. It has been designed specifically for sulfur (total or especiated) in flare gas applications. It is suitable to install in an unclassified or Class I, Division 2 location.

Filter changes can be made in less than one minute.

The Model 270F filter will mount by means of a pipe flange to a mating flange on the stack. The size of the flange can be specified by the user and can include 2", 3", 4" or 6". Other flange sizes may be available; contact the factory for more information. The probe tube used is specific to the Model 270F and is specified with the Model 270F.

For more accurate and faster response time, all sample wetted stainless steel parts have been SilcoNert™ 2000 coated. Sample flow rates of up to 20 l/m can be extracted and filtered through the Model 270F with a minimal amount of pressure drop.

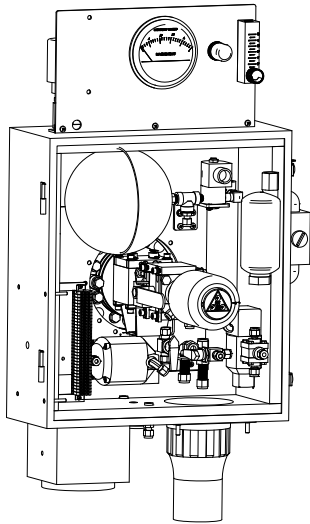


## APPLICATION:

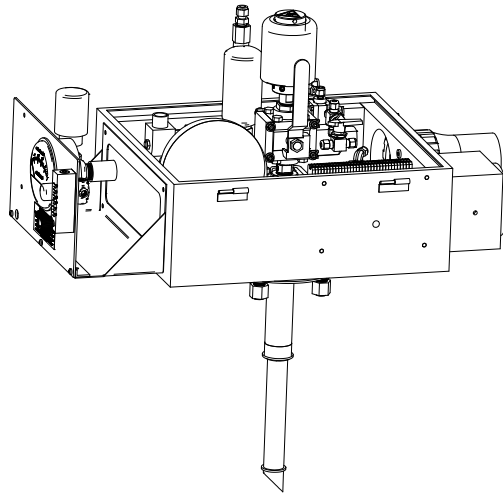
- The Model 270F is designed to meet 40 CFR 60 subpart ja as well as SCAQMD rule 1118 for flare related emissions at refineries, hydrogen plants and sulfur recovery plants.
- Flare stack monitoring comes with several challenges which require measures be taken for personnel safety, high velocity measurements and NEC NFPA compliance.
- The UAI model 270F specific gas sample probe and the O'Brien TrueTube™ EPS heated sample transport line provide the best technical solution for point of measurement safety and fast response time to the analyzer requirement!

## FEATURES:

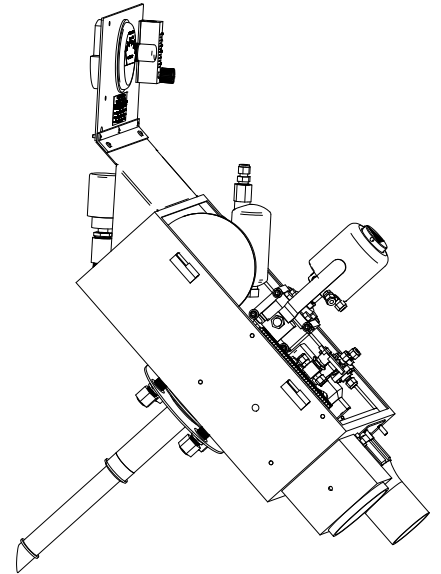
- Environmental Purge with NRTL Approval for hazardous area installations
- (C1D2 groups B,C,D, T3, ambient up to 80°C/176°F)
- NEMA 4X stainless steel weather protection enclosure
- Heated filter chamber with 2µm, ceramic filter element for particulate capture
- Filter blow back with integrated high volume air accumulator vessel and solenoid valve
- Retractable probe tube with stop and proprietary triple o-ring seal for "hot tap" installations
- Custom probe tube lengths to meet velocity and stack/pipe diameters
- Chemical resistant O-rings/seals, and all wetted metal components Silconert™2000 treated
- Optional process isolation / double block / block & bleed valves w/manual or pneumatic actuation
- Enclosure includes sample line heat shrink boot with options for all pneumatic and electrical connections internal
- Cold weather options are available with full enclosure insulation and freeze protect heating



VERTICAL INSTALLATION VIEW  
WITH Z-PURGE  
(DOOR REMOVED)  
(0° MOUNTING OPTION)

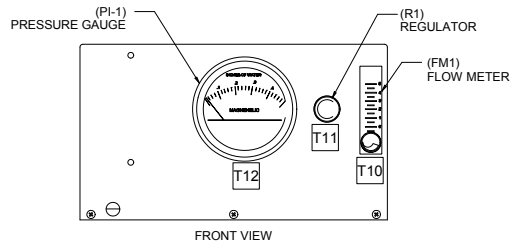


HORIZONTAL INSTALLATION VIEW  
WITH Z-PURGE  
(DOOR REMOVED)  
(90° MOUNTING OPTION)



INSTALLATION VIEW (45° MOUNTING)  
WITH Z-PURGE  
(DOOR REMOVED)  
(45° MOUNTING OPTION)

Z-PURGE FLOW CONTROL PANEL



**Technical Information:**

Sample Flow Rate:	0 to 20 LPM
Calibration Gas Flow Requirement:	Sample flow rate plus 10%
Operating Pressure Drop at 10 LPM:	12" water column (0.03 bar)
Maximum Stack Temperature:	700°F (370°C)
Oven Temperature:	270°F (132°C)
Enclosure Dimensions:	19" x 17" x 17" (480 mm x 430 mm x 430 mm) HxWxD
Weight:	108 lbs (49 kg) (plus probe tube)
Input Power Requirement:	575 watt maximum
Input Voltage Requirement:	115 or 230 VAC at 50/60 Hz
Electrical Classification:	FM/CSA Class I, Div 2, Groups A, B, C, & D & ATEX II 3G Ex nA IIC 175°C (T3)
<b>EXTERNAL FUSE REQUIRED OF 20 A OR LESS</b>	
Ambient Temperature Operating:	176°F (maximum 80°C)
Blowback Tank Volume:	0.1 SCF (2.8 L)
Blowback Duration:	1.5 sec to empty accumulator
Enclosure:	SS, IP 65
Sample Line Connection:	3" Heat Shrink Boot (standard) 4" Heat Shrink Boot (optional)
Heater Type:	Rod heaters in aluminum block controlled by thermal switch
Available Filter Chamber Materials:	316 SS, SilcoNert™ 2000 coated Hastelloy C-276 (optional)
Available Filter Element Types:	2 µm ceramic
Hazardous Area Classification:	Class I, Div 2, Groups B, C, D