

NITROGEN-PAC ACCESSORIES

**TRUE ADVANCED PURGE SYSTEM
 MODEL TAP-G3 with ADC™**

Description

The **UNITED Fire Systems** True Advanced Purge System **Model TAP-G3 with ADC™** is designed to automatically purge air from within a dry-pipe or preaction sprinkler system and replace the air with 98% nitrogen from a **NITROGEN-PAC™** sprinkler corrosion inhibiting system. The system also automatically samples, analyzes, and displays the percentage of nitrogen within the pipe.

Advanced Sensor Technology

The **Model TAP-G3 with ADC™** uses the most advanced zirconium dioxide gas sensor technology available today, overcoming many of the limitations of other sensor types. The result is stable nitrogen purity readings and long sensor life, without the need for manual intervention to adjust or calibrate device readings.

ADC™ – Active Drift Control

The **Model TAP-G3** features **Active Drift Control**, an automatic analysis of gas sensor drift and application of correlation and gain offsets to maintain device accuracy regardless of sensor status. This analysis and drift control is routinely performed by algorithms built-in to the device control system each time the TAP-G3 automatically measures the nitrogen purity within the sprinkler piping. No user involvement or special reference gas is required, and no other device available today offers this active method of controlling the accuracy of the displayed nitrogen value.

Features

- Automatic sampling of gas from inside the pipe and permanent display of nitrogen concentration.
- Automatic initial purge sequence for removal of air from sprinkler system piping and replacement with 98% nitrogen.
- Easy-to-read front panel display of nitrogen concentration, purge status, time, and date.
- Mounts separately from associated purge vent assembly and connects with plenum-rated tubing.
- Relay outputs for system fault remote notifications, including low nitrogen concentration after automatic initial purge sequence.

Benefits

- Eliminates manual use of hand-held nitrogen analyzer to measure nitrogen concentration in the pipe.
- Read nitrogen value at eye level – no need to climb up to purge vent locations.
- Eliminates manual operation of ball valves to regulate purging.
- Local and remote signaling of fault conditions.
- Monitor and control from any chosen location.

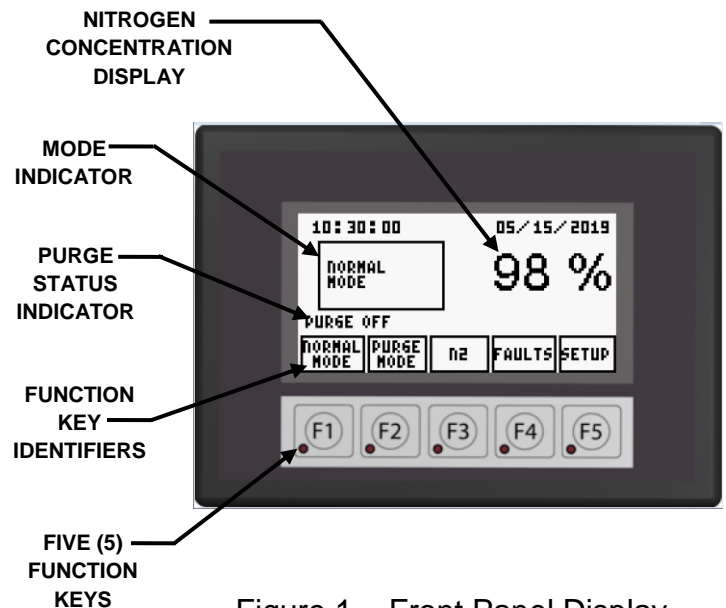


Figure 1 – Front Panel Display (Normal Status)

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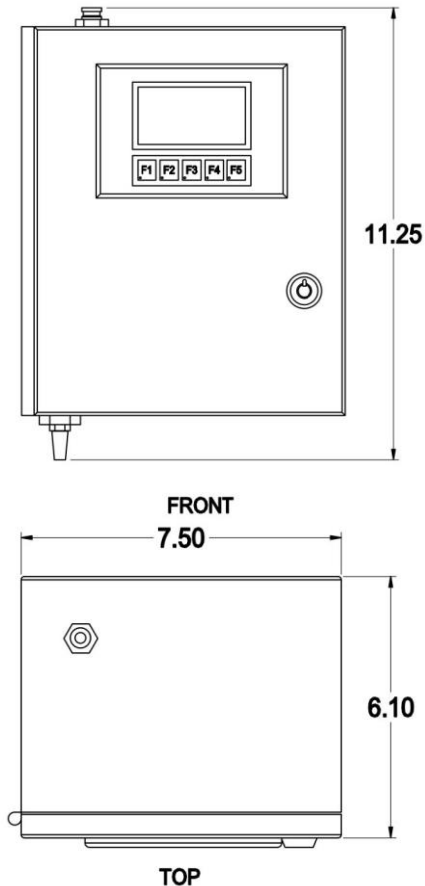
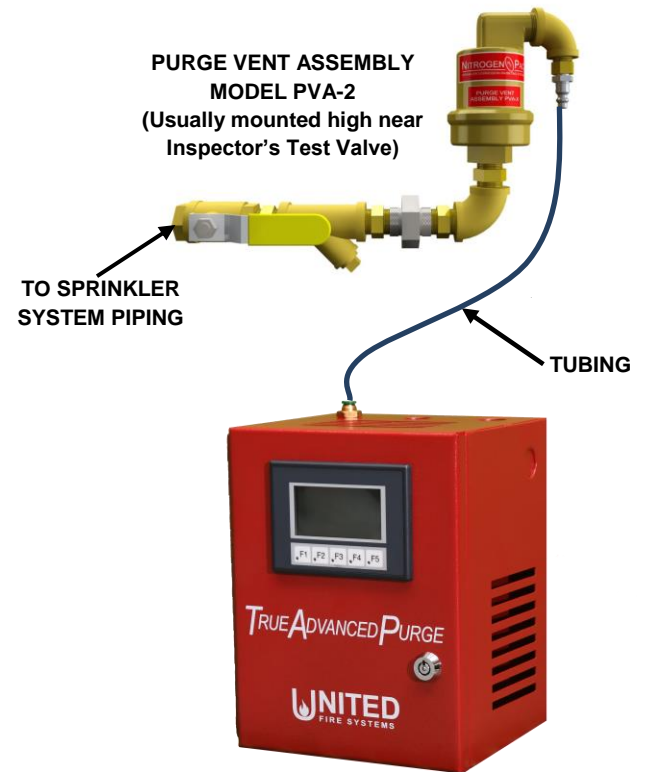


Figure 2 – TAP-G3 Dimensions



TRUE ADVANCED PURGE ASSEMBLY
 MODEL TAP-G3
 (Usually mounted at eye level)

Figure 3 – Typical Installation

Technical Data

- Power requirement = 115 VAC 60 Hz single phase
- Approximate current draw = 1.1 amps.
- Accuracy = $\pm 0.01\%$
- Resolution = 0.1%
- Predicted sensor life = 10 years
- Maximum length of tubing from PVA-2 to TAP = 1000 feet

Notes

- **Model TAP-G3** is to be installed as shown in Figure 3. For use of TAP-G3 with any other mechanical purge vent, consult **UNITED Fire Systems**.
- For additional data on **Model PVA-2** Purge Vent Assembly, refer to Data Sheet UFS-314A.

Ordering Information

Model TAP-G3 Includes:

- True Advanced Purge assembly (P/N TAP-G3-115).
- Twenty (20) feet of plenum-rated tubing to connect PVA-2 to TAP-G3. (If longer length required, contact **UNITED Fire Systems**.)
- Installation, Commissioning, and Maintenance Manual (P/N 33-TG3ICM-000)
- User Guide (P/N 33-TG3USE-000).

UNITED Fire Systems

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This literature is provided for informational purposes only. United Fire Protection Corporation assumes no responsibility for the product's suitability for a particular application. The product must be properly applied to perform as intended.