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Backflow Prevention Assembly Field Test Kits

Section I

1.0 General

1.1 Application

Portable backflow prevention assembly field test kits (herein referred to as "BFTK") shall be used in testing the performance of backflow prevention assemblies.

1.2 Scope

This standard covers the performance requirements and accuracy of a BFTK. This standard is confined to analog dial type and digital instrumentation. Duplex gauges are not a part of this standard.

1.2.1 Description

BFTK's shall be of a design making them portable. They shall be designed to indicate the operation of a backflow prevention assembly to pre-established testing procedures. The backflow field test kit shall include all gauges, hoses, valves and fittings as required for testing purposes.

1.2.2 BFTK Accuracy Requirements

1.2.2.1 Differential Pressure Gauge Accuracy Requirements

On descending pressure, differential gauges shall have an accuracy of ± 0.2 psid (± 1.4 kPa).

NOTE: All referenced kPa values are rounded for proper gauge readability.

1.2.2.2 Line Pressure Gauge Accuracy Requirements

Pressure gauges used for the purpose of indicating line pressure on a backflow preventer shall have an ASME B40.100 accuracy, grade C or better.

1.2.3 Pressure Range

Portable BFTK's shall indicate a full-scale pressure reading of 15.0 psid (103.4 kPa). Gauges designed to read a line pressure shall have a maximum range of 300.0 psi (2068.5.0 kPa).

1.2.4 Temperature Range

All BFTK's shall have a water temperature range of 33.0 °F (0.55 °C) to a maximum of 150.0 °F (65.6 °C).

1.2.5 Gauge Resolution

1.2.5.1 Differential Pressure Test Kit

Differential pressure BFTK's shall be able to resolve 0.1 psi (0.7 kPa).