

## **ASSE International**

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Performance Requirements for

# **Outdoor Enclosures for Fluid Conveying Components**

*An American National Standard*

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# Foreword

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This foreword shall not be considered a part of the standard; however, it is offered to provide background information.

ASSE International standards are developed in the interest of consumer safety.

This standard focuses on devices that provide a range of protection for fluid conveying components that are mounted outside and above ground so that they may avoid damage from freezing, vandalism, and tampering.

The title and scope of this standard was changed during the 2005 revision to, *Performance Requirements for Outdoor Enclosures for Fluid Conveying Components*. Fluid conveying components include backflow prevention assemblies and devices, water meters, control valves, pressure reducing valves, air release valves, pumps, and other components installed outdoors and above ground that require protection from freezing, or require system security protection.

Class I and I-V enclosures provide equal or greater protection than Class II or II-V enclosures, or Class III or III-V enclosures. Class II and II-V enclosures provide an equal or greater protection than Class III or III-V enclosures.

Recognition is made of the time volunteered by members of this working group and of the support of manufacturers, who also participated in developing this standard.

This standard does not imply ASSE International's endorsement of a product that conforms to these requirements.

Compliance with this standard does not imply acceptance by any code body.

It is recommended that enclosures be installed consistent with local codes by qualified and trained professionals.

This standard was promulgated in accordance with procedures developed by ASSE International and approved by the American National Standards Institute (ANSI).

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# Performance Requirements for Outdoor Enclosures for Fluid Conveying Components

## Section I

### 1.0 General

#### 1.1 Application

This standard details the requirements of outdoor enclosures for fluid conveying components (herein referred to as the "enclosure"). It includes enclosure types for freezing and non-freezing locations.

These enclosures are designed to protect backflow prevention assemblies and devices, water/gas meters, control valves, pressure reducing valves, air release valves, pumps, and other components installed outdoors requiring protection from freezing and/or for system security.

#### 1.2 Scope

##### 1.2.1 Description

The enclosures incorporate features to provide for positive drainage, security, and accessibility for monitoring, testing, repairing, and replacing of the components. The enclosures shall provide freeze protection, freeze retardation or non-freeze protection of the components, and be vandal-resistant.

##### 1.2.2 Classes

###### 1.2.2.1 Freeze Protection Enclosures (Heated)

Freeze protection enclosures (Class I and I-V) shall have a minimum thermal resistance value of eight (R8), and a positive means of heat. These enclosures shall be designed and constructed to maintain a minimum internal temperature of 40.0 °F (4.4 °C) using the empirical data obtained in Section 3.6, which is based on an external temperature of -30.0 °F (-34.4 °C). Class I enclosures are designed for components that do not generate positive and/or negative air pressures. Class I-V enclosures are designed for components that generate positive and/or negative air pressures, and include an air inlet and/or outlet.

###### 1.2.2.2 Freeze Retardant Enclosures (Non-Heated)

Freeze retardant enclosures (Class II and II-V) shall have a minimum thermal resistance value of eight (R8).

These enclosures shall be designed and constructed to be installed in climates where the ambient temperature does not go below 33.0 °F (0.6 °C) for long periods of time. These enclosures offer no guarantee of freeze protection and are for indeterminable temporary freeze protection when the ambient temperature drops below freezing for a short period of time. Class II enclosures are designed for components that do not generate positive and/or negative air pressures. Class II-V enclosures are designed for components that generate positive and/or negative air pressures, and include an air inlet and/or outlet.