



ADDENDA

**ANSI/ASHRAE Addendum ck to
ANSI/ASHRAE Standard 135-2020**



A Data Communication Protocol for Building Automation and Control Networks

Approved by the ASHRAE Standards Committee on June 28, 2024, and by the American National Standards Institute on June 28, 2024.

This addendum was approved by a Standing Standard Project Committee (SSPC) for which the Standards Committee has established a documented program for regular publication of addenda or revisions, including procedures for timely, documented, consensus action on requests for change to any part of the standard. Instructions for how to submit a change can be found on the ASHRAE® website (www.ashrae.org/continuous-maintenance).

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[This foreword, the table of contents, the introduction, and the “rationales” on the following pages are not part of this standard. They are merely informative and do not contain requirements necessary for conformance to the standard.]

FOREWORD

The purpose of this addendum is to present a proposed change for public review. These modifications are the result of change proposals made pursuant to the ASHRAE continuous maintenance procedures and of deliberations within Standing Standard Project Committee 135. The proposed changes are summarized below.

135-2020ck-1 Add missing formal definitions of ASN.1 datatypes, p. 3

In the following document, language to be added to existing clauses of ANSI/ASHRAE Standard 135-2020 is indicated through the use of *italics* and deletions are indicated by ~~striketrough~~. Where entirely new subclauses are proposed to be added, plain type is used throughout. Only this new and deleted text is open to comment at this time. All other material in this document is provided for context only and is not open for public review comment except as it relates to the proposed changes.

The use of placeholders such as XX, YY, ZZ, X1, X2, NN, x, n, ? etc. should not be interpreted as literal values of the final published version. These placeholders will be assigned actual numbers/letters only after final publication approval of the addendum.

135-2020ck-1 Add missing formal definitions of ASN.1 datatypes

Rationale

To make ASN.1 datatypes consistent and usable as type names.

[Change Clause 21.5, p. 881]

21.5 Application Types

The following types are defined within ASN.1

-- **NULL** , equivalent to [UNIVERSAL 5]
-- **BOOLEAN** , equivalent to [UNIVERSAL 1]
-- **INTEGER** , equivalent to [UNIVERSAL 2]
-- **REAL** , equivalent to [UNIVERSAL 9] ANSI/IEEE-754 single precision floating point
-- **OCTET STRING** , equivalent to [UNIVERSAL 4]
-- **BIT STRING** , equivalent to [UNIVERSAL 3]

-- The following productions are the definitions of the Application datatypes.

-- See Clause 20.2.1.4.

~~— **NULL** — [APPLICATION 0], equivalent to [UNIVERSAL 5]~~
Null ::= [APPLICATION 0] **NULL** -- equivalent to [UNIVERSAL 5]

~~— **BOOLEAN** — [APPLICATION 1], equivalent to [UNIVERSAL 1]~~
Boolean ::= [APPLICATION 1] **BOOLEAN** -- equivalent to [UNIVERSAL 1]

Unsigned ::= [APPLICATION 2] **INTEGER** (0..MAX)

Unsigned8 ::= **Unsigned** (0..255)

Unsigned16 ::= **Unsigned** (0..65535)

Unsigned32 ::= **Unsigned** (0..4294967295)

Unsigned64 ::= **Unsigned** (0.. 18446744073709551615) -- 0 .. 'the 64th power of two'-1

~~— **INTEGER** — [APPLICATION 3], equivalent to [UNIVERSAL 2]~~
Integer ::= [APPLICATION 3] **INTEGER** -- equivalent to [UNIVERSAL 2]

~~**INTEGER16** ::= **INTEGER** (-32768..32767)~~
Integer16 ::= **Integer** (-32768..32767)

~~— **REAL** — [APPLICATION 4], equivalent to [UNIVERSAL 9] ANSI/IEEE-754 single precision floating point~~
Real ::= [APPLICATION 4] **REAL** -- equivalent to [UNIVERSAL 9] ANSI/IEEE-754 single precision floating point

Double ::= [APPLICATION 5] **OCTET STRING** (SIZE(8)) -- ANSI/IEEE-754 double precision floating point

~~— **OCTET STRING** — [APPLICATION 6], equivalent to [UNIVERSAL 4]~~
OctetString ::= [APPLICATION 6] **OCTET STRING** -- equivalent to [UNIVERSAL 4]

~~— **BIT STRING** — [APPLICATION 8], equivalent to [UNIVERSAL 3]~~
BitString ::= [APPLICATION 8] **BITSTRING** -- equivalent to [UNIVERSAL 3]

-- **ENUMERATED** [APPLICATION 9], equivalent to [UNIVERSAL 10]

[Replace in whole standard except in its own definition in Clause 21.5]

[Note to Editor: Please check for variations in spelling; for example, BITSTRING, or Octet String]

~~NULL~~*Null*
~~BOOLEAN~~*Boolean*
~~INTEGER~~*Integer*
~~INTEGER16~~*Integer16*
~~REAL~~*Real*
~~DOUBLE~~*Double*
~~OCTET STRING~~*OctetString*
~~BIT STRING~~*BitString*

[Add a new entry to History of Revisions, p. 1364]

(This History of Revisions is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard.)

HISTORY OF REVISIONS

...
1	26	Addendum <i>ck</i> to ANSI/ASHRAE Standard 135-2020 Approved by ASHRAE on June 28, 2024; and by the American National Standards Institute on June 28, 2024. 1. Add missing formal definitions of ASN.1 datatypes

POLICY STATEMENT DEFINING ASHRAE'S CONCERN FOR THE ENVIRONMENTAL IMPACT OF ITS ACTIVITIES

ASHRAE is concerned with the impact of its members' activities on both the indoor and outdoor environment. ASHRAE's members will strive to minimize any possible deleterious effect on the indoor and outdoor environment of the systems and components in their responsibility while maximizing the beneficial effects these systems provide, consistent with accepted Standards and the practical state of the art.

ASHRAE's short-range goal is to ensure that the systems and components within its scope do not impact the indoor and outdoor environment to a greater extent than specified by the Standards and Guidelines as established by itself and other responsible bodies.

As an ongoing goal, ASHRAE will, through its Standards Committee and extensive Technical Committee structure, continue to generate up-to-date Standards and Guidelines where appropriate and adopt, recommend, and promote those new and revised Standards developed by other responsible organizations.

Through its *Handbook*, appropriate chapters will contain up-to-date Standards and design considerations as the material is systematically revised.

ASHRAE will take the lead with respect to dissemination of environmental information of its primary interest and will seek out and disseminate information from other responsible organizations that is pertinent, as guides to updating Standards and Guidelines.

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