

**INTERPRETATION IC 135-2016-25 OF
ANSI/ASHRAE STANDARD 135-2016 BACnet® -
A Data Communication Protocol for Building
Automation and Control Networks**

Approval Date: February 1, 2020

Request from: Brandon DuPrey, Johnson Controls, 507 E. Michigan St, Milwaukee, WI 53219.

Reference: This request for interpretation refers to the requirements presented in ANSI/ASHRAE Standard 135-2016, Clause 12.56.11 Network_Number.

Background: The standard is not clear on what the expected behavior should be when a value of 0 is written to the Network_Number property of the Network Port Object. Not all devices are capable of learning the network number so writing a value of 0 would not be useful.

12.56.11 Network_Number

This property, of type Unsigned16, represents the BACnet network number associated with this network.

The range for this property shall be 0 .. 65534. A Network_Number of 0 indicates that the Network_Number is not known or cannot be determined. Writing 0 to the Network_Number property shall force the value of the Network_Number_Quality property to UNKNOWN and allows the device to attempt to learn the network number, if possible. Writing a value other than 0 shall force the Network_Number_Quality property to CONFIGURED.

If the Network_Type is PTP, then this property shall be read-only and contain a value of 0.

This property shall be writable in routers, secure devices, and any other device that requires knowledge of the network number for proper operation. Routers are permitted to refuse a value of 0. In that case, the write request shall result in an error response with 'Error Class' of PROPERTY and an 'Error Code' of VALUE_OUT_OF_RANGE.

If this property is writable, then a successful write to this property shall set the Changes_Pending property to TRUE. A value written to this property shall become effective when the device receives a ReinitializeDevice service request with a 'Reinitialized State of Device' of ACTIVATE_CHANGES or WARMSTART.

Interpretation: Any device that is not capable of learning the network number is permitted to refuse a value of 0, not just routers. That is, any device that must be configured with a network number in order to function properly is permitted to refuse a value of 0.

Question: Is this Interpretation correct?

Answer: No.

Comments: Based on clause 12.56.11 rejecting writing zero to the Network Number is limited to routers.