

Safeguard V4 Modbus & BACnet BMS Protocol

Modbus

The Safeguard V4 Smoke Fire Damper Control System provides a Modbus server (slave) interface for BMS clients. The BMS client must periodically poll the Safeguard V4 system for damper status using function code 03 (Read Holding Registers). The BMS must use the damper handle with the function code 03 to request the damper status.

Response to function code 03

Upper Digit (Position Field)	Lower Digit (Status Field)
0 Damper is open	0 Damper is healthy
1 Damper is closed	1 Damper is missing
2 Damper is balanced	2 Damper has feedback failure
3 Damper is travelling	3 Damper has comm failure
9 Null Value	4 Damper had both feedback and comm failure
	5 Damper is out of service*
	6 Damper is in local mode**
	9 Null Value***

* Damper is offline or under test. Ignore the Position Field.

** Damper is in local mode i.e. under control of the BMS. Ignore the Position Field.

*** The damper handles does not exist.

EXAMPLE 1

From BMS:

<03><100>

Response from Safeguard V4:

<00> (Damper 100 is open and healthy.)

EXAMPLE 2

From BMS:

<03><110>

Response from Safeguard V4:

<01> (Damper 110 is open and faulty.)

BACnet

The Safeguard V4 Smoke Fire Damper Control System provides a BACnet server interface for BMS clients. The BMS client can use the ReadProperty service to read the ANALOG_VALUE object for each damper. The pertinent fields for this object are as follows:

Property	Type	Description
Object_Identifier	BACnet ObjectIdentifier	The object number (instance) holds the damper handle
Object_Name	Char string	The damper name
Description	Char string	The group (zone) the damper is located in
Present_Value	Real	0 - Damper is open 1 - Damper is closed 2 - Damper is balanced 3 - Damper is travelling 4 - Damper is missing 5 - Damper is in fault 6 - Damper is out of service 7 - Damper is in local mode



ELECTROSTATIC SENSITIVE DEVICE

CE Complies with European standards

WARNING: The responsible body shall be made aware that, if the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

The information herein is subject to change without notice. We do not assume any liability arising out of the use of this product. Purchase of goods and services is subject to Safegard Systems standard terms and conditions.

Product warranty 12 months from date of delivery.

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