

# Actionpac LNS5 & Safeguard V5 BMS Protocol

## Modbus

The 5th generation Smoke Fire Damper Control System provides a Modbus server (slave) interface for BMS clients. The BMS client must periodically poll the 5th generation 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

| Register Value | Description                       |
|----------------|-----------------------------------|
| 0              | The damper is open                |
| 1              | The damper is closed              |
| 2              | The damper is balanced            |
| 3              | The damper is in transit          |
| 4              | The damper is under local control |
| 5              | The damper has faults             |
| 9              | Illegal register                  |

#### EXAMPLE 1

**From BMS:** <03><100>

**Response from damper control system:** <1>  
(Damper 100 is open)

#### EXAMPLE 2

**From BMS:** <03><110>

**Response from damper control system:** <5>  
(Damper 110 is faulty)

## BACnet

The 5th generation 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                          |

 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 Safeguard Systems standard terms and conditions.*

*Product warranty 12 months from date of delivery.*

Actionair and Safeguard are brand names of Swegon Air Management and Safeguard Systems respectively and both companies are part of the Swegon Group.

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