

iBox BACnet/IP

Gateway for the integration of Notifier ID3000 and Morley DXc fire panel series in BACnet/IP enabled monitoring and control systems.

User Manual

MN-DT-960I
27 FEBRUARY 2013
(IBOX-BAC-NID3000 / r1 eng)

INDEX

1	Description	4
1.1	Introduction	4
1.2	Functionality	5
1.3	Capacity of iBox	5
2	Protocol Implementation Conformance Statement	6
2.1	BACnet Standardized Device Profile (Annex L):	6
2.2	Segmentation Capability:	6
2.3	Data Link Layer Options:	6
2.4	Device Address Binding:	6
2.5	Networking Options:	7
2.6	Character Sets Supported	7
2.7	Gateway	7
3	BACnet Interoperability Building Blocks Supported (BIBBs)	8
3.1	Data Sharing BIBBs	8
3.2	Alarm and Event Management BIBBs	8
3.3	Scheduling BIBBs	9
3.4	Trending BIBBs	9
3.5	Network Management BIBBs	9
3.6	Device Management BIBBs	10
4	Service Types	11
5	Objects	12
5.1	Supported Object Types	12
5.2	Member objects	13
5.2.1	Type: Gateway	13
5.2.2	Type: General	13
5.2.3	Type: Detector	13
5.2.4	Type: Module	13
5.2.5	Type: Zone	13
5.3	Objects and properties	14
5.3.1	Notifier ID3000 Gateway (Device Object Type)	15
5.3.2	System_Events (last event received) (Analog Input Object Type)	17
5.3.3	Communication_Error (Binary Input Object Type)	18
5.3.4	Fire (Binary Input Object Type)	19
5.3.5	Pre-Alarm (Binary Input Object Type)	20
5.3.6	Fault (Binary Input Object Type)	21
5.3.7	Device/s_disconnected (Binary Input Object Type)	22
5.3.8	Evacuate (Binary Input Object Type)	23
5.3.9	Test_in_progress (Binary Input Object Type)	24
5.3.10	Engineer_mode (Binary Input Object Type)	25
5.3.11	Network_Fault (Binary Input Object Type)	26
5.3.12	Sounders_delayed_mode (Binary Input Object Type)	27
5.3.13	Sounders_Off (Binary Input Object Type)	28
5.3.14	Day_Mode (Binary Input Object Type)	29
5.3.15	Routing_Equipment_disabled (Binary Input Object Type)	30
5.3.16	ID2Net_Ch1_Fault (Binary Input Object Type)	31
5.3.17	ID2Net_Ch2_Fault (Binary Input Object Type)	32
5.3.18	CMD_System_Reset (Binary Output Object Type)	33
5.3.19	CMD_Terminate_Test (Binary Output Object Type)	34
5.3.20	CMD_Silence_Sounders (Binary Output Object Type)	35
5.3.21	CMD_Mute_Buzzer (Binary Output Object Type)	36
5.3.22	CMD_Evacuate (Binary Output Object Type)	37
5.3.23	CMD_Test_Sounders (Binary Output Object Type)	38
5.3.24	CMD_Resound_Sounders (Binary Output Object Type)	39
5.3.25	LoDdd_Status (Multistate Input Object Type)	40
5.3.26	LoDdd_Command (Multistate Output Object Type)	42
5.3.27	LoDdd_Level (Analog Input Object Type)	43
5.3.28	LoMmm_Status (Multistate Input Object Type)	44

5.3.29	LoMmm_Command (Multistate Output Object Type)	46
5.3.30	LoMmm_Level (Analog Input Object Type)	47
5.3.31	Zzzz_Status (Multistate Input Object Type)	48
5.3.32	Zzzz_Command (Multistate Output Object Type)	50
6	Connections	51
6.1	Power device	52
6.2	Connect to BACnet	52
6.3	Connect to Notifier panel interface	52
6.4	Connect to PC (LinkBoxBACnet)	53
7	Set-up process and troubleshooting	54
7.1	Pre-requisites	54
7.2	LinkBoxBACnet. Configuration & monitoring tool for iBox BACnet series	54
7.2.1	Introduction	54
7.2.2	Connections configuration	54
7.2.3	Sending the configuration to iBox	57
7.2.4	Signals viewer	57
7.2.5	Files	58
7.2.6	Set-up procedure	59
7.3	System Reset	60
7.4	Scan	60
7.5	Cyclical Polling	61
7.6	Level values	61
7.7	Morley DXc	61
8	Mechanical & electrical characteristics	62
9	Dimensions	63
10	Procedure to configure the RS232 port in the Notifier ID3000 panel	64
10.1	ISO-RS232 optional PCB	64
10.2	Main Board RS232	64
11	Fire Panel System Events	65

1 Description

1.1 Introduction

This document describes the integration of Notifier ID3000 series fire panels into BACnet compatible devices and systems using gateway *iBox BACnet/IP Server – Notifier ID3000*.

The aim of this integration is to monitor and control your Notifier Panel, remotely, from your Control Center using any commercial SCADA or monitoring software that includes a BACnet/IP driver. To do it so, iBox allows BACnet/IP communication, acting as a server, allowing polling or subscription requests (COV).

iBox makes available the Notifier ID3000 series fire panel's elements (detectors, modules...) through independent BACnet objects.

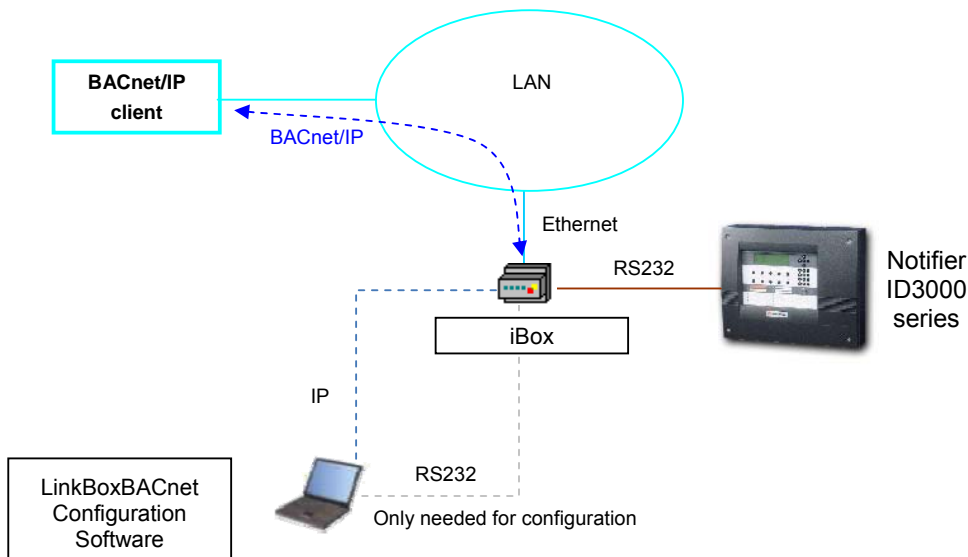
Abstraction of Notifier ID 3000 panel properties and functionalities as fixed BACnet Objects. iBox allows fixed BACnet object IDs mapping. Simple configuration is needed: just select the appropriate communication parameters (IP address, baud rate...).

iBox connects to the RS232 port of the Notifier panel, either through the RS232 port of the mother board, or through the isolated ISO-RS232 port (optional card).

One full ID3000 panel capacity is supported.

This gateway is compatible with the Morley DXc fire panels.

This document assumes that the user is familiar with BACnet and Notifier technologies and their technical terms.



**Integration of Notifier ID3000 fire panel
using *iBox BACnet/IP Server***

1.2 Functionality

The communication protocol Notifier ID3000 is based basically on events; the states of the panel's elements (detectors, modules, etc.) are transmitted through the protocol in the form of events whenever they occur. Nonetheless, some states are obtained through polling.

The role of iBox consists in associate the elements of the Notifier ID3000 panel with BACnet objects.

The control of the Notifier panel is permitted, so commands toward the panel are permitted.

Each detector, module and zone is offered in independent BACnet objects. Detectors and modules are provided with **status**, **command** and **level** objects. Zones only have **status** and **command** objects. Next, there is a summary table with the current objects for each Notifier panel element type.

Element	Object supported
Detector	<ul style="list-style-type: none"> • Status • Command • Level
Module	
Zone	<ul style="list-style-type: none"> • Status • Command

1.3 Capacity of iBox

iBox is capable of integrating one single Notifier ID3000 panel and its associated elements.

Element	Max.	Notes
Number of Panels	1	iBox can only integrate one single panel, no matter if it is in network with others.
Number of Objects	5285	Number of Notifier objects available into iBox.

Regarding the Notifier interface, its capacity varies from one panel to another, below there is a summary table indicating different capacities from the Notifier Panels.

Element	Value ranges	Description
Loops	1 to 8	Number of loops available in the Notifier panel
Detectors	1 to 99	Number of detectors used per loop used in the Notifier panel
Modules	1 to 99	Number of modules used per loop in the Notifier panel
Zones	1 to 255	Number of zones used in the Notifier panel

The number of *detectors* and *modules* is fixed for each *loop*. The number of *loops* and *zones* can be configured to match the ones available in the fire panel. This configuration is done through LinkBoxBACnet (See section 7.2).

Ref.: IBOX-BAC-NID3000

2 Protocol Implementation Conformance Statement

BACnet Protocol Implementation Conformance Statement (PICS)

Date: 2013-02-20

Vendor Name: Intesis Software SL

Product Name: iBox-BACnet-NID3000

Product Model Number: IBOX-BAC-NID3000

Application Software Version: 4.0.1

Firmware Revision: 4.0.1

BACnet Protocol Revision: 2

Product Description:

Notifier ID3000 -BACnet/IP Gateway

Abstraction of Notifier ID 3000 panel properties and functionalities as BACnet Objects.
Capacity of 1 Notifier panel and all signals in the panel.

2.1 BACnet Standardized Device Profile (Annex L):

- BACnet Operator Workstation (B-OWS)
- BACnet Building Controller (B-BC)
- BACnet Advanced Application Controller (B-AAC)
- BACnet Application Specific Controller (B-ASC)
- BACnet Smart Sensor (B-SS)
- BACnet Smart Actuator (B-SA)

Additional BACnet Interoperability Building Blocks Supported (Annex K):
Reference of BIBBs List

2.2 Segmentation Capability:

Segmented request supported No Yes Window Size
Segmented responses supported No Yes Window Size

2.3 Data Link Layer Options:

- BACnet IP, (Annex J)
- BACnet IP, (Annex J), Foreign Device
- ISO 8802-3, Ethernet (Clause 7)
- ANSI/ATA 878.1, 2.5 Mb. ARCNET (Clause 8)
- ANSI/ATA 878.1, RS-485 ARCNET (Clause 8), baud rate(s)
- MS/TP master (Clause 9), baud rate(s):
- MS/TP slave (Clause 9), baud rate(s):
- Point-To-Point, EIA 232 (Clause 10), baud rate(s):
- Point-To-Point, modem, (Clause 10), baud rate(s):
- LonTalk, (Clause 11), medium:
- Other:

2.4 Device Address Binding:

Is static device binding supported? (This is currently necessary for two-way communication with MS/TP slaves and certain other devices.) Yes No

2.5 *Networking Options:*

- Router, Clause 6 - List all routing configurations, e.g., ARCNET-Ethernet, Ethernet-MS/TP, etc.
- Annex H, BACnet Tunneling Router over IP
- BACnet/IP Broadcast Management Device (BBMD)
Does the BBMD support registrations by Foreign Devices? Yes No

2.6 *Character Sets Supported*

Indicating support for multiple character sets does not imply that they can all be supported simultaneously.

- ANSI X3.4
- IBM™/Microsoft™ DBCS
- JIS C 6226
- ISO 10646 (UCS-4)
- ISO 10646 (UCS-2)
- ISO 8859-1

2.7 *Gateway*

If this product is a communication gateway, describe the types of non-BACnet equipment/network(s) that the gateway supports:

Notifier ID3000 fire panel through EIA232 or ISO-RS232 interface

3 BACnet Interoperability Building Blocks Supported (BIBBs)

3.1 Data Sharing BIBBs

BIBB Type		Active	BACnet Service	Initiate	Execute
DS-RP-A	Data Sharing-ReadProperty-A	<input type="checkbox"/>	ReadProperty	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DS-RP-B	Data Sharing-ReadProperty-B	<input checked="" type="checkbox"/>	ReadProperty	<input type="checkbox"/>	<input checked="" type="checkbox"/>
DS-RPM-A	Data Sharing-ReadPropertyMultiple-A	<input type="checkbox"/>	ReadPropertyMultiple	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DS-RPM-B	Data Sharing-ReadPropertyMultiple-B	<input type="checkbox"/>	ReadPropertyMultiple	<input type="checkbox"/>	<input checked="" type="checkbox"/>
DS-RPC-A	Data Sharing-ReadPropertyConditional-A	<input type="checkbox"/>	ReadPropertyConditional	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DS-RPC-B	Data Sharing-ReadPropertyConditional-B	<input type="checkbox"/>	ReadPropertyConditional	<input type="checkbox"/>	<input checked="" type="checkbox"/>
DS-WP-A	Data Sharing-WriteProperty-A	<input type="checkbox"/>	WriteProperty	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DS-WP-B	Data Sharing-WriteProperty-B	<input checked="" type="checkbox"/>	WriteProperty	<input type="checkbox"/>	<input checked="" type="checkbox"/>
DS-WPM-A	Data Sharing-WritePropertyMultiple-A	<input type="checkbox"/>	WritePropertyMultiple	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DS-WPM-B	Data Sharing-WritePropertyMultiple-B	<input type="checkbox"/>	WritePropertyMultiple	<input type="checkbox"/>	<input checked="" type="checkbox"/>
DS-COV-A	Data Sharing-COV-A	<input type="checkbox"/>	SubscribeCOV	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	ConfirmedCOVNotification	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	UnconfirmedCOVNotification	<input type="checkbox"/>	<input checked="" type="checkbox"/>
DS-COV-B	Data Sharing-COV-B	<input checked="" type="checkbox"/>	SubscribeCOV	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input checked="" type="checkbox"/>	ConfirmedCOVNotification	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input checked="" type="checkbox"/>	UnconfirmedCOVNotification	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DS-COVP-A	Data Sharing-COVP-A	<input type="checkbox"/>	SubscribeCOV	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	ConfirmedCOVNotification	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	UnconfirmedCOVNotification	<input type="checkbox"/>	<input checked="" type="checkbox"/>
DS-COVP-B	Data Sharing-COVP-B	<input type="checkbox"/>	SubscribeCOV	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	ConfirmedCOVNotification	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	UnconfirmedCOVNotification	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DS-COVU-A	Data Sharing-COV-Unsolicited-A	<input type="checkbox"/>	UnconfirmedCOVNotification	<input type="checkbox"/>	<input checked="" type="checkbox"/>
DS-COVU-B	Data Sharing-COV-Unsolicited-B	<input type="checkbox"/>	UnconfirmedCOVNotification	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.2 Alarm and Event Management BIBBs

BIBB Type		Active	BACnet Service	Initiate	Execute
AE-N-A	Alarm and Event-Notification-A	<input type="checkbox"/>	ConfirmedEventNotification	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	UnconfirmedEventNotification	<input type="checkbox"/>	<input checked="" type="checkbox"/>
AE-N-I-B	Alarm and Event-Notification Internal-B	<input type="checkbox"/>	ConfirmedEventNotification	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	UnconfirmedEventNotification	<input checked="" type="checkbox"/>	<input type="checkbox"/>
AE-N-E-B	Alarm and Event-Notification External-B	<input type="checkbox"/>	ConfirmedEventNotification	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	UnconfirmedEventNotification	<input checked="" type="checkbox"/>	<input type="checkbox"/>
AE-ACK-A	Alarm and Event-ACK-A	<input type="checkbox"/>	AcknowledgeAlarm	<input checked="" type="checkbox"/>	<input type="checkbox"/>
AE-ACK-B	Alarm and Event-ACK-B	<input type="checkbox"/>	AcknowledgeAlarm	<input type="checkbox"/>	<input checked="" type="checkbox"/>
AE-ASUM-A	Alarm and Event-Summary-A	<input type="checkbox"/>	GetAlarmSummary	<input checked="" type="checkbox"/>	<input type="checkbox"/>
AE-ASUM-B	Alarm and Event-Summary-B	<input type="checkbox"/>	GetAlarmSummary	<input type="checkbox"/>	<input checked="" type="checkbox"/>
AE-ESUM-A	Event-Summary-A	<input type="checkbox"/>	GetEnrollmentSummary	<input checked="" type="checkbox"/>	<input type="checkbox"/>
AE-ESUM-B	Event-Summary-B	<input type="checkbox"/>	GetEnrollmentSummary	<input type="checkbox"/>	<input checked="" type="checkbox"/>
AE-INFO-A	Alarm and Event-Information-A	<input type="checkbox"/>	GetEventInformation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
AE-INFO-B	Alarm and Event-Information-B	<input type="checkbox"/>	GetEventInformation	<input type="checkbox"/>	<input checked="" type="checkbox"/>
AE-LS-A	Alarm and Event-LifeSafety-A	<input type="checkbox"/>	LifeSafetyOperation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
AE-LS-B	Alarm and Event-LifeSafety-B	<input type="checkbox"/>	LifeSafetyOperation	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.3 Scheduling BIBBs

BIBB Type		Active	BACnet Service	Initiate	Execute
SCHED-A	Scheduling–A (must support DS-RP-A and DS-WP-A)	<input type="checkbox"/>			
		<input type="checkbox"/>			
SCHED-I-B	Scheduling-Internal–B (shall support DS-RP-B and DS-WP-B) (shall also support ether DM-TS-B or DS-UTC-B)	<input type="checkbox"/>			
		<input type="checkbox"/>			
SCHED-E-B	Scheduling-External–B (shall support SCHED-I-B and DS-WP-A)	<input type="checkbox"/>			
		<input type="checkbox"/>			
T-VMT-A	Trending - Viewing and Modifying Trends–A	<input type="checkbox"/>	ReadRange	<input type="checkbox"/>	<input checked="" type="checkbox"/>
T-VMT-I-B	Trending - Viewing and Modifying Trends Internal–B	<input type="checkbox"/>	ReadRange	<input type="checkbox"/>	<input checked="" type="checkbox"/>
T-VMT-E-B	Trending - Viewing and Modifying Trends External–B	<input type="checkbox"/>	ReadRange	<input type="checkbox"/>	<input checked="" type="checkbox"/>
T-ATR-A	Trending - Automated Trend Retrieval–A	<input type="checkbox"/>	ConfirmedEventNotification	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	ReadRange	<input checked="" type="checkbox"/>	<input type="checkbox"/>
T-ATR-B	Trending - Automated Trend Retrieval–B	<input type="checkbox"/>	ConfirmedEventNotification	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	ReadRange	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.4 Trending BIBBs

BIBB Type		Active	BACnet Service	Initiate	Execute
T-VMT-A	Trending - Viewing and Modifying Trends–A	<input type="checkbox"/>	ReadRange	<input checked="" type="checkbox"/>	<input type="checkbox"/>
T-VMT-I-B	Trending - Viewing and Modifying Trends Internal–B	<input type="checkbox"/>	ReadRange	<input type="checkbox"/>	<input checked="" type="checkbox"/>
T-VMT-E-B	Trending - Viewing and Modifying Trends External–B	<input type="checkbox"/>	ReadRange	<input type="checkbox"/>	<input checked="" type="checkbox"/>
T-ATR-A	Trending - Automated Trend Retrieval–A	<input type="checkbox"/>	ConfirmedEventNotification	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	ReadRange	<input checked="" type="checkbox"/>	<input type="checkbox"/>
T-ATR-B	Trending - Automated Trend Retrieval–B	<input type="checkbox"/>	ConfirmedEventNotification	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	ReadRange	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.5 Network Management BIBBs

BIBB Type		Active	BACnet Service	Initiate	Execute
NM-CE-A	Network Management - Connection Establishment–A	<input type="checkbox"/>	Establish-Connection-To-Network	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	Disconnect-Connection-To-Network	<input checked="" type="checkbox"/>	<input type="checkbox"/>
NM-CE-B	Network Management - Connection Establishment– B	<input type="checkbox"/>	Establish-Connection-To-Network	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	Disconnect-Connection-To-Network	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NM-RC-A	Network Management - Router Configuration–A	<input type="checkbox"/>	Who-Is-Router-To-Network	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	I-Am-Router-To-Network	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	I-Could-Be-Router-To-Network	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	Initialize-Routing-Table	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	Initialize-Routing-Table-Ack	<input type="checkbox"/>	<input checked="" type="checkbox"/>
NM-RC-B	Network Management - Router Configuration–B	<input type="checkbox"/>	Who-Is-Router-To-Network	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	I-Am-Router-To-Network	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	Initialize-Routing-Table	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	Initialize-Routing-Table-Ack	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.6 Device Management BIBBs

BIBB Type		Active	BACnet Service	Initiate	Execute
DM-DDB-A	Device Management - Dynamic Device Binding-A	<input type="checkbox"/>	Who-Is	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	I-Am	<input type="checkbox"/>	<input checked="" type="checkbox"/>
DM-DDB-B	Device Management - Dynamic Device Binding-B	<input checked="" type="checkbox"/>	Who-Is	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input checked="" type="checkbox"/>	I-Am	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DM-DOB-A	Device Management - Dynamic Object Binding-A	<input type="checkbox"/>	Who-Has	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	I-Have	<input type="checkbox"/>	<input checked="" type="checkbox"/>
DM-DOB-B	Device Management - Dynamic Object Binding-B	<input checked="" type="checkbox"/>	Who-Has	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input checked="" type="checkbox"/>	I-Have	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DM-DCC-A	Device Management - DeviceCommunicationControl-A	<input type="checkbox"/>	DeviceCommunicationControl	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DM-DCC-B	Device Management - DeviceCommunicationControl-B	<input type="checkbox"/>	DeviceCommunicationControl	<input type="checkbox"/>	<input checked="" type="checkbox"/>
DM-PT-A	Device Management - PrivateTransfer-A	<input type="checkbox"/>	ConfirmedPrivateTransfer	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	UnconfirmedPrivateTransfer	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DM-PT-B	Device Management - PrivateTransfer-B	<input type="checkbox"/>	ConfirmedPrivateTransfer	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	UnconfirmedPrivateTransfer	<input type="checkbox"/>	<input checked="" type="checkbox"/>
DM-TM-A	Device Management - Text Message-A	<input type="checkbox"/>	ConfirmedTextMessage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	UnconfirmedTextMessage	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DM-TM-B	Device Management - Text Message-B	<input type="checkbox"/>	ConfirmedTextMessage	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	UnconfirmedTextMessage	<input type="checkbox"/>	<input checked="" type="checkbox"/>
DM-TS-A	Device Management - TimeSynchronization-A	<input type="checkbox"/>	TimeSynchronization	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DM-TS-B	Device Management - TimeSynchronization-B	<input type="checkbox"/>	TimeSynchronization	<input type="checkbox"/>	<input checked="" type="checkbox"/>
DM-UTC-A	Device Management - UTCTimeSynchronization-A	<input type="checkbox"/>	UTCTimeSynchronization	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DM-UTC-B	Device Management - UTCTimeSynchronization-B	<input type="checkbox"/>	UTCTimeSynchronization	<input type="checkbox"/>	<input checked="" type="checkbox"/>
DM-RD-A	Device Management - ReinitializeDevice-A	<input type="checkbox"/>	ReinitializeDevice	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DM-RD-B	Device Management - ReinitializeDevice-B	<input checked="" type="checkbox"/>	ReinitializeDevice	<input type="checkbox"/>	<input checked="" type="checkbox"/>
DM-BR-A	Device Management - Backup and Restore-A	<input type="checkbox"/>	AtomicReadFile	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	AtomicWriteFile	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	CreateObject	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	ReinitializeDevice	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DM-BR-B	Device Management - Backup and Restore-B	<input type="checkbox"/>	AtomicReadFile	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	AtomicWriteFile	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	ReinitializeDevice	<input type="checkbox"/>	<input checked="" type="checkbox"/>
DM-R-A	Device Management - Restart-A	<input type="checkbox"/>	UnconfirmedCOVNotification	<input type="checkbox"/>	<input checked="" type="checkbox"/>
DM-R-B	Device Management - Restart-B	<input type="checkbox"/>	UnconfirmedCOVNotification	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DM-LM-A	Device Management - List Manipulation-A	<input type="checkbox"/>	AddListElement	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	RemoveListElement	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DM-LM-B	Device Management - List Manipulation-B	<input type="checkbox"/>	AddListElement	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	RemoveListElement	<input type="checkbox"/>	<input checked="" type="checkbox"/>
DM-OCD-A	Device Management - Object Creation and Deletion-A	<input type="checkbox"/>	CreateObject	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	DeleteObject	<input checked="" type="checkbox"/>	<input type="checkbox"/>
DM-OCD-B	Device Management - Object Creation and Deletion-B	<input type="checkbox"/>	CreateObject	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	DeleteObject	<input type="checkbox"/>	<input checked="" type="checkbox"/>
DM-VT-A	Device Management - Virtual Terminal-A	<input type="checkbox"/>	VT-Open	<input checked="" type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	VT-Close	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	VT-Data	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DM-VT-B	Device Management - Virtual Terminal-B	<input type="checkbox"/>	VT-Open	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	VT-Close	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>	VT-Data	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

4 Service Types

Service type	Service name	Supported	Remarks
Alarm and Event Services	AcknowledgeAlarm	<input type="checkbox"/>	
	ConfirmedCOVNotification	<input checked="" type="checkbox"/>	
	ConfirmedEventNotification	<input type="checkbox"/>	
	GetAlarmSummary	<input type="checkbox"/>	
	GetEnrollmentSummary	<input type="checkbox"/>	
	SubscribeCOV	<input checked="" type="checkbox"/>	
File Access Services	AtomicReadFile	<input type="checkbox"/>	
	AtomicWriteFile	<input type="checkbox"/>	
Object Access Services	AddListElement	<input type="checkbox"/>	
	RemoveListElement	<input type="checkbox"/>	
	CreateObject	<input type="checkbox"/>	
	DeleteObject	<input type="checkbox"/>	
	ReadProperty	<input checked="" type="checkbox"/>	
	ReadPropertyConditional	<input type="checkbox"/>	
	ReadPropertyMultiple	<input type="checkbox"/>	
	ReadRange	<input type="checkbox"/>	
	WriteProperty	<input checked="" type="checkbox"/>	
	WritePropertyMultiple	<input type="checkbox"/>	
Remote Device Management Services	DeviceCommunicationControl	<input type="checkbox"/>	
	ConfirmedPrivateTransfer	<input type="checkbox"/>	
	ConfirmedTextMessage	<input type="checkbox"/>	
	ReinitializeDevice	<input checked="" type="checkbox"/>	
Virtual Terminal Services	VtOpen	<input type="checkbox"/>	
	VtClose	<input type="checkbox"/>	
	VtData	<input type="checkbox"/>	
Security Services	Authenticate	<input type="checkbox"/>	
	RequestKey	<input type="checkbox"/>	
Unconfirmed Services	I-Am	<input checked="" type="checkbox"/>	
	I-Have	<input checked="" type="checkbox"/>	
	UnconfirmedCOVNotification	<input checked="" type="checkbox"/>	
	UnconfirmedEventNotification	<input type="checkbox"/>	
	UnconfirmedPrivateTransfer	<input type="checkbox"/>	
	UnconfirmedTextMessage	<input type="checkbox"/>	
	TimeSynchronization	<input type="checkbox"/>	
	UtcTimeSynchronization	<input type="checkbox"/>	
	Who-Has	<input checked="" type="checkbox"/>	
	Who-Is	<input checked="" type="checkbox"/>	
	LifeSafetyOperation	<input type="checkbox"/>	
	SubscribeCOVProperty	<input type="checkbox"/>	
	GetEventInformation	<input type="checkbox"/>	

5 Objects

5.1 Supported Object Types

The objects supported are shown in the table below.

Object Type	ID	Supported	Management Point
Analog-Input	0	<input checked="" type="checkbox"/>	System_Events (last event received) LoDdd_Level LoMmm_Level
Analog-Output	1	<input type="checkbox"/>	
Analog-Value	2	<input type="checkbox"/>	
Averaging	18	<input type="checkbox"/>	
Binary-Input	3	<input checked="" type="checkbox"/>	Fire Pre-Alarm Fault Device/s_disconnected Evacuate Test_in_progress Engineer_mode Network_Fault Sounders_delayed_mode Sounders_Off Day_Mode Routing_Equipement_disabled ID2Net_Ch1_Fault ID2Net_Ch2_Fault
Binary-Output	4	<input checked="" type="checkbox"/>	CMD_System_Reset CMD_Terminate_Test CMD_Silence_Sounders CMD_Mute_Buzzer CMD_Evacuate CMD_Test_Sounders CMD_Resound_Sounders
Binary-Value	5	<input type="checkbox"/>	
Calendar	6	<input type="checkbox"/>	
Command	7	<input type="checkbox"/>	
Device	8	<input checked="" type="checkbox"/>	Notifier ID3000 Gateway
Event-Enrollment	9	<input type="checkbox"/>	
File	10	<input type="checkbox"/>	
Group	11	<input type="checkbox"/>	
Life-Safety-Point	21	<input type="checkbox"/>	
Life-Safety-Zone	22	<input type="checkbox"/>	
Loop	12	<input type="checkbox"/>	
Multistate-Input	13	<input checked="" type="checkbox"/>	LoDdd_Status LoMmm_Status Zzzz_Status
Multistate-Output	14	<input checked="" type="checkbox"/>	LoDdd_Command LoMmm_Command Zzzz_Command
Multistate-Value	19	<input type="checkbox"/>	
Notification-Class	15	<input type="checkbox"/>	
Program	16	<input type="checkbox"/>	
Schedule	17	<input type="checkbox"/>	
Trend-Log	20	<input type="checkbox"/>	

5.2 Member objects

5.2.1 Type: Gateway

Object-name	Description	Object-type	Object-instance
Notifier ID3000 Gateway	Notifier ID3000 Gateway	Device	246
Communication_Error	Communication_Error	BI	0

5.2.2 Type: General

Object-name	Description	Object-type	Object-instance
System_Events (last event received)	System_Events (last event received)	AI	0
Fire	Fire	BI	1
Pre-Alarm	Pre-Alarm	BI	2
Fault	Fault	BI	3
Device/s_disconnected	Device/s_disconnected	BI	4
Evacuate	Evacuate	BI	5
Test_in_progress	Test_in_progress	BI	6
Engineer_mode	Engineer_mode	BI	7
Network_Fault	Network_Fault	BI	8
Sounders_delayed_mode	Sounders_delayed_mode	BI	9
Sounders_Off	Sounders_Off	BI	10
Day_Mode	Day_Mode	BI	11
Routing_Equipement_disabled	Routing_Equipement_disabled	BI	12
ID2Net_Ch1_Fault	ID2Net_Ch1_Fault	BI	13
ID2Net_Ch2_Fault	ID2Net_Ch2_Fault	BI	14
CMD_System_Reset	CMD_System_Reset	BO	0
CMD_Terminate_Test	CMD_Terminate_Test	BO	1
CMD_Silence_Sounders	CMD_Silence_Sounders	BO	2
CMD_Mute_Buzzer	CMD_Mute_Buzzer	BO	3
CMD_Evacuate	CMD_Evacuate	BO	4
CMD_Test_Sounders	CMD_Test_Sounders	BO	5
CMD_Resound_Sounders	CMD_Resound_Sounders	BO	6

5.2.3 Type: Detector

Object-name	Description	Object-type	Object-instance
LoDdd_Status	Detector status	MI	(o * 256) + dd
LoDdd_Command	Detector command	MO	(o * 256) + dd
LoDdd_Level	Detector mesured level	AI	(o * 256) + dd

5.2.4 Type: Module

Object-name	Description	Object-type	Object-instance
LoMmm_Status	Module status	MI	(o * 256) + 100 + mm
LoMmm_Command	Module command	MO	(o * 256) + 100 + mm
LoMmm_Level	Module mesured level	AI	(o * 256) + 100 + mm

5.2.5 Type: Zone

Object-name	Description	Object-type	Object-instance
Zzzz_Status	Zone status	MI	(9 * 256) + zzz
Zzzz_Command	Zone command	MO	(9 * 256) + zzz

5.3 Objects and properties

Below you can find relevant information for the objects and properties.

Object_Identifier: In the **Device Object**, the value of object instance is configurable through LinkBoxBACnet. See Table 5.1 in order to obtain the name of each object.

Variable	Description
"o"	Loop number inside the panel (1..8)
"dd"	Detector address in the loop (1..99)
"mm"	Module address in the loop (1..99)
"zzz"	Zone address in the panel (1..255)

Table 5.1 LinkBoxBACnet generated files during Project creation

Object_Name: In the **Device Object**, this string is configurable through LinkBoxBACnet. For Module, Detector and Zone related objects, see Table 5.1 in order to obtain the name of each object.

Description: In the **Device Object**, this string is configurable through LinkBoxBACnet.

Relinquish_Default: In **Binary Outputs** and **Multistate Outputs**, the value of *Present_Value* property will be read.

Priority_Array: In **Binary Outputs** and **Multistate Outputs**, *Priority_Array[16]* will acquire the value of *Present_Value* property and *Priority_Array[1]~[15]* will be NULL.

State_Text: In **Multistate Outputs** and **Multistate Inputs**, it cannot be read the whole array at once, so "Array Index" must be specified in order to obtain the text of the corresponding state.

5.3.1 Notifier ID3000 Gateway (Device Object Type)

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Device, 246)	R	R
Object_Name	CharacterString	"Notifier ID3000 Gateway"	R	R
Object_Type	BACnetObjectType	DEVICE (8) (Device Object Type)	R	R
System_Status	BACnetDeviceStatus	OPERATIONAL (0)	R	R
Vendor_Name	CharacterString	"Intesis Software"	R	R
Vendor_Identifier	Unsigned16	246	R	R
Model_Name	CharacterString	"iBox_BACNET_SVR_NID3000"	R	R
Firmware_Revision	CharacterString	"4.0.1"	R	R
Application_Software_Version	CharacterString	"4.0.1"	R	R
Location	CharacterString	""	O	R
Description	CharacterString	"Notifier ID3000 Gateway"	O	R
Protocol_Version	Unsigned	1	R	R
Protocol_Revision	Unsigned	2	R	R
Protocol_Services_Supported	BACnetServiceSupported	Refer to section 4 [Service Types].	R	R
Protocol_Object_Types_Supported	BACnetObjectTypes Supported	Refer to section 5.1 [Object Types].	R	R
Object_List	BACnetArray[N] of BACnetObjectIdentifier	BACnetARRAY[N]	R	R
Structured_Object_List	BACnetArray[N] of BACnetObjectIdentifier	-	O	-
Max_APDU_Length_Accepted	Unsigned	480	R	R
Segmentation_Supported	BACnetSegmentation	NO_SEGMENTATION (3)	R	R
Max_Segments_Accepted	Unsigned	-	O	R
VT_Classes_Supported	List of BACnetVTClass	-	O	-
Active_VT_Sessions	List of BACnetVTSession	-	O	-
Local_Date	Date	-	O	-
Local_Time	Time	-	O	-
UTC_Offset	INTEGER	-	O	-
Daylight_Savings_Status	BOOLEAN	-	O	-
APDU_Segment_Timeout	Unsigned	-	O	-
APDU_Timeout	Unsigned	3,000	R	R
Number_of_APDU_Retries	Unsigned	3	R	R
List_Of_Session_Keys	List of BACnetSessionKey	-	O	-
Time_Synchronization_Recipients	List of BACnetRecipient	-	O	-
Max_Master	Unsigned	-	O	-
Max_Info_Frames	Unsigned	-	O	-

Device_Address_Binding	List of BACnetAddressBinding	NULL (empty)	R	R
Database_Revision	Unsigned	0	R	R
Configuration_Files	BACnetArray[N] of BACnetObjectIdentifier	-	O	-
Last_Restore_Time	BACnetTimeStamp	-	O	-
Backup_Failure_Timeout	Unsigned16	-	O	-
Active_COV_Subscriptions	List of BACnetCOVSubscription	-	O	-
Slave_Proxy_Enable	BACnetArray[N] of BOOLEAN	-	O	-
Manual_Slave_Address_Binding	List of BACnetAddressBinding	-	O	-
Auto_Slave_Discovery	BACnetArray[N] of BOOLEAN	-	O	-
Slave_Address_Binding	BACnetAddressBinding	-	O	-
Last_Restart_Reason	BACnetRestartReason	-	O	-
Time_Of_Device_Restart	BACnetTimeStamp	-	O	-
Restart_Notification_Recipients	List of BACnetRecipient	-	O	-
UTC_Time_Synchronization_Recipients	List of BACnetRecipient	-	O	-
Time_Synchronization_Interval	Unsigned	-	O	-
Align_Intervals	BOOLEAN	-	O	-
Interval_Offset	Unsigned	-	O	-
Max_Segments_accepted	Unsigned	-	O	-
Profile_Name	CharacterString	-	O	-

5.3.2 System_Events (last event received) (Analog Input Object Type)

Last event generated by the fire panel. See section 11 for more details.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Analog Input,0)	R	R
Object_Name	CharacterString	"System_Events"	R	R
Object_Type	BACnetObjectType	ANALOG_INPUT (0)	R	R
Present_Value	REAL	0..999 (Default 0)	R	R
Description	CharacterString	"System_Events"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL (0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	FALSE/TRUE (Default: TRUE)	R	R
Update_Interval	Unsigned	300	O	R
Units	BACnetEngineeringUnits	NO-UNITS (95)	R	R
Min_Pres_Value	REAL	0	O	R
Max_Pres_Value	REAL	999	O	R
Resolution	REAL	1	O	R
COV_Increment	REAL	1	O	R
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
High_Limit	REAL	-	O	-
Low_Limit	REAL	-	O	-
Deadband	REAL	-	O	-
Limit_Enable	BACnetLimitEnable	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

5.3.3 Communication_Error (Binary Input Object Type)

It indicates that there has been a communication error between iBox and the fire panel.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Binary Input, 0)	R	R
Object_Name	CharacterString	"Communication Error"	R	R
Object_Type	BACnetObjectType	BINARY_INPUT (3)	R	R
Present_Value	BACnetBinaryPV	INACTIVE (0) / ACTIVE (1)	R	R
Description	CharacterString	Communication Error	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL (0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	FALSE/TRUE	R	R
Polarity	BACnetPolarity	NORMAL (0)	R	R
Inactive_Text	CharacterString	"Inactive"	O	R
Active_Text	CharacterString	"Active"	O	R
Change_Of_State_Time	BACnetDatetime	-	O	-
Change_Of_State_Count	Unsigned	-	O	-
Time_Of_State_Count_Reset	BACnetDatetime	-	O	-
Elapsed_Active_Time	Unsigned	-	O	-
Time_Of_Active_Time_Reset	BACnetDatetime	-	O	-
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
Alarm_Value	BACnetBinaryPV	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

5.3.4 Fire (Binary Input Object Type)

It indicates that a Fire situation has been detected.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Binary Input, 1)	R	R
Object_Name	CharacterString	"Fire"	R	R
Object_Type	BACnetObjectType	BINARY_INPUT (3)	R	R
Present_Value	BACnetBinaryPV	INACTIVE (0) / ACTIVE (1)	R	R
Description	CharacterString	"Fire"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL (0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	FALSE/TRUE	R	R
Polarity	BACnetPolarity	NORMAL (0)	R	R
Inactive_Text	CharacterString	"Inactive"	O	R
Active_Text	CharacterString	"Active"	O	R
Change_Of_State_Time	BACnetDatetime	-	O	-
Change_Of_State_Count	Unsigned	-	O	-
Time_Of_State_Count_Reset	BACnetDatetime	-	O	-
Elapsed_Active_Time	Unsigned	-	O	-
Time_Of_Active_Time_Reset	BACnetDatetime	-	O	-
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
Alarm_Value	BACnetBinaryPV	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

5.3.5 Pre-Alarm (Binary Input Object Type)

It indicates that a Pre-Alarm situation has been detected.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Binary Input, 2)	R	R
Object_Name	CharacterString	"Pre-Alarm"	R	R
Object_Type	BACnetObjectType	BINARY_INPUT (3)	R	R
Present_Value	BACnetBinaryPV	INACTIVE (0) / ACTIVE (1)	R	R
Description	CharacterString	"Pre-Alarm"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL (0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	FALSE/TRUE	R	R
Polarity	BACnetPolarity	NORMAL (0)	R	R
Inactive_Text	CharacterString	"Inactive"	O	R
Active_Text	CharacterString	"Active"	O	R
Change_Of_State_Time	BACnetDatetime	-	O	-
Change_Of_State_Count	Unsigned	-	O	-
Time_Of_State_Count_Reset	BACnetDatetime	-	O	-
Elapsed_Active_Time	Unsigned	-	O	-
Time_Of_Active_Time_Reset	BACnetDatetime	-	O	-
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
Alarm_Value	BACnetBinaryPV	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

5.3.6 Fault (Binary Input Object Type)

It indicates that a Fault situation has been detected.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Binary Input, 3)	R	R
Object_Name	CharacterString	"Fault"	R	R
Object_Type	BACnetObjectType	BINARY_INPUT (3)	R	R
Present_Value	BACnetBinaryPV	INACTIVE (0) / ACTIVE (1)	R	R
Description	CharacterString	"Fault"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL (0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	FALSE/TRUE	R	R
Polarity	BACnetPolarity	NORMAL (0)	R	R
Inactive_Text	CharacterString	"Inactive"	O	R
Active_Text	CharacterString	"Active"	O	R
Change_Of_State_Time	BACnetDatetime	-	O	-
Change_Of_State_Count	Unsigned	-	O	-
Time_Of_State_Count_Reset	BACnetDatetime	-	O	-
Elapsed_Active_Time	Unsigned	-	O	-
Time_Of_Active_Time_Reset	BACnetDatetime	-	O	-
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
Alarm_Value	BACnetBinaryPV	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

5.3.7 Device/s_disconnected (Binary Input Object Type)

It indicates that there is a device disconnected from the system.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Binary Input, 4)	R	R
Object_Name	CharacterString	"Device/s_disconnected"	R	R
Object_Type	BACnetObjectType	BINARY_INPUT (3)	R	R
Present_Value	BACnetBinaryPV	INACTIVE(0)/ACTIVE (1)	R	R
Description	CharacterString	"Device/s_disconnected"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL (0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	FALSE/TRUE	R	R
Polarity	BACnetPolarity	NORMAL (0)	R	R
Inactive_Text	CharacterString	"Inactive"	O	R
Active_Text	CharacterString	"Active"	O	R
Change_Of_State_Time	BACnetDatetime	-	O	-
Change_Of_State_Count	Unsigned	-	O	-
Time_Of_State_Count_Reset	BACnetDatetime	-	O	-
Elapsed_Active_Time	Unsigned	-	O	-
Time_Of_Active_Time_Reset	BACnetDatetime	-	O	-
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
Alarm_Value	BACnetBinaryPV	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

5.3.8 Evacuate (Binary Input Object Type)

It indicates that an Evacuate situation has been started.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Binary Input, 5)	R	R
Object_Name	CharacterString	"Evacuate"	R	R
Object_Type	BACnetObjectType	BINARY_INPUT (3)	R	R
Present_Value	BACnetBinaryPV	INACTIVE (0) / ACTIVE (1)	R	R
Description	CharacterString	"Evacuate"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL (0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	FALSE/TRUE	R	R
Polarity	BACnetPolarity	NORMAL (0)	R	R
Inactive_Text	CharacterString	"Inactive"	O	R
Active_Text	CharacterString	"Active"	O	R
Change_Of_State_Time	BACnetDatetime	-	O	-
Change_Of_State_Count	Unsigned	-	O	-
Time_Of_State_Count_Reset	BACnetDatetime	-	O	-
Elapsed_Active_Time	Unsigned	-	O	-
Time_Of_Active_Time_Reset	BACnetDatetime	-	O	-
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
Alarm_Value	BACnetBinaryPV	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

5.3.9 Test_in_progress (Binary Input Object Type)

It indicates that there is a test in progress.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Binary Input, 6)	R	R
Object_Name	CharacterString	"Test_in_progress"	R	R
Object_Type	BACnetObjectType	BINARY_INPUT (3)	R	R
Present_Value	BACnetBinaryPV	INACTIVE (0) / ACTIVE (1)	R	R
Description	CharacterString	"Test_in_progress"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL (0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	FALSE/TRUE	R	R
Polarity	BACnetPolarity	NORMAL (0)	R	R
Inactive_Text	CharacterString	"Inactive"	O	R
Active_Text	CharacterString	"Active"	O	R
Change_Of_State_Time	BACnetDatetime	-	O	-
Change_Of_State_Count	Unsigned	-	O	-
Time_Of_State_Count_Reset	BACnetDatetime	-	O	-
Elapsed_Active_Time	Unsigned	-	O	-
Time_Of_Active_Time_Reset	BACnetDatetime	-	O	-
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
Alarm_Value	BACnetBinaryPV	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

5.3.10 Engineer_mode (Binary Input Object Type)

It indicates that the Engineer mode is enabled.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Binary Input, 7)	R	R
Object_Name	CharacterString	"Engineer_mode"	R	R
Object_Type	BACnetObjectType	BINARY_INPUT (3)	R	R
Present_Value	BACnetBinaryPV	INACTIVE (0) / ACTIVE (1)	R	R
Description	CharacterString	"Engineer_mode"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL (0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	FALSE/TRUE	R	R
Polarity	BACnetPolarity	NORMAL (0)	R	R
Inactive_Text	CharacterString	"Inactive"	O	R
Active_Text	CharacterString	"Active"	O	R
Change_Of_State_Time	BACnetDatetime	-	O	-
Change_Of_State_Count	Unsigned	-	O	-
Time_Of_State_Count_Reset	BACnetDatetime	-	O	-
Elapsed_Active_Time	Unsigned	-	O	-
Time_Of_Active_Time_Reset	BACnetDatetime	-	O	-
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
Alarm_Value	BACnetBinaryPV	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

5.3.11 Network_Fault (Binary Input Object Type)

It indicates that a Fault situation has been detected in the master/slave network.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Binary Input, 8)	R	R
Object_Name	CharacterString	"Network_Fault"	R	R
Object_Type	BACnetObjectType	BINARY_INPUT (3)	R	R
Present_Value	BACnetBinaryPV	INACTIVE (0) / ACTIVE (1)	R	R
Description	CharacterString	"Network_Fault"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL (0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	FALSE/TRUE	R	R
Polarity	BACnetPolarity	NORMAL (0)	R	R
Inactive_Text	CharacterString	"Inactive"	O	R
Active_Text	CharacterString	"Active"	O	R
Change_Of_State_Time	BACnetDatetime	-	O	-
Change_Of_State_Count	Unsigned	-	O	-
Time_Of_State_Count_Reset	BACnetDatetime	-	O	-
Elapsed_Active_Time	Unsigned	-	O	-
Time_Of_Active_Time_Reset	BACnetDatetime	-	O	-
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
Alarm_Value	BACnetBinaryPV	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

5.3.12 Sounders_delayed_mode (Binary Input Object Type)

It indicates that sounders are in a Sounders delayed mode.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Binary Input, 9)	R	R
Object_Name	CharacterString	"Sounders_delayed_mode"	R	R
Object_Type	BACnetObjectType	BINARY_INPUT (3)	R	R
Present_Value	BACnetBinaryPV	INACTIVE (0) / ACTIVE(1)	R	R
Description	CharacterString	"Sounders_delayed_mode"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL (0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	FALSE/TRUE	R	R
Polarity	BACnetPolarity	NORMAL (0)	R	R
Inactive_Text	CharacterString	"Inactive"	O	R
Active_Text	CharacterString	"Active"	O	R
Change_Of_State_Time	BACnetDatetime	-	O	-
Change_Of_State_Count	Unsigned	-	O	-
Time_Of_State_Count_Reset	BACnetDatetime	-	O	-
Elapsed_Active_Time	Unsigned	-	O	-
Time_Of_Active_Time_Reset	BACnetDatetime	-	O	-
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
Alarm_Value	BACnetBinaryPV	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

5.3.13 Sounders_Off (Binary Input Object Type)

It indicates that Sounders are Off.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Binary Input, 10)	R	R
Object_Name	CharacterString	"Sounders_Off"	R	R
Object_Type	BACnetObjectType	BINARY_INPUT (3)	R	R
Present_Value	BACnetBinaryPV	INACTIVE (0) / ACTIVE (1)	R	R
Description	CharacterString	"Sounders_Off"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL (0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	FALSE/TRUE	R	R
Polarity	BACnetPolarity	NORMAL (0)	R	R
Inactive_Text	CharacterString	"Inactive"	O	R
Active_Text	CharacterString	"Active"	O	R
Change_Of_State_Time	BACnetDatetime	-	O	-
Change_Of_State_Count	Unsigned	-	O	-
Time_Of_State_Count_Reset	BACnetDatetime	-	O	-
Elapsed_Active_Time	Unsigned	-	O	-
Time_Of_Active_Time_Reset	BACnetDatetime	-	O	-
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
Alarm_Value	BACnetBinaryPV	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

5.3.14 Day_Mode (Binary Input Object Type)

It indicates that Day Mode is activated.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Binary Input, 11)	R	R
Object_Name	CharacterString	"Day_Mode"	R	R
Object_Type	BACnetObjectType	BINARY_INPUT (3)	R	R
Present_Value	BACnetBinaryPV	INACTIVE (0) / ACTIVE (1)	R	R
Description	CharacterString	"Day_Mode"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL (0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	FALSE/TRUE	R	R
Polarity	BACnetPolarity	NORMAL (0)	R	R
Inactive_Text	CharacterString	"Inactive"	O	R
Active_Text	CharacterString	"Active"	O	R
Change_Of_State_Time	BACnetDatetime	-	O	-
Change_Of_State_Count	Unsigned	-	O	-
Time_Of_State_Count_Reset	BACnetDatetime	-	O	-
Elapsed_Active_Time	Unsigned	-	O	-
Time_Of_Active_Time_Reset	BACnetDatetime	-	O	-
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
Alarm_Value	BACnetBinaryPV	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

5.3.15 Routing_Equipement_disabled (Binary Input Object Type)

It indicates that a transmission routing equipment has been disabled.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Binary Input, 12)	R	R
Object_Name	CharacterString	"Routing_Equipement_disabled"	R	R
Object_Type	BACnetObjectType	BINARY_INPUT (3)	R	R
Present_Value	BACnetBinaryPV	INACTIVE (0) / ACTIVE (1)	R	R
Description	CharacterString	"Routing_Equipement_disabled"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL (0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	FALSE/TRUE	R	R
Polarity	BACnetPolarity	NORMAL (0)	R	R
Inactive_Text	CharacterString	"Inactive"	O	R
Active_Text	CharacterString	"Active"	O	R
Change_Of_State_Time	BACnetDatetime	-	O	-
Change_Of_State_Count	Unsigned	-	O	-
Time_Of_State_Count_Reset	BACnetDatetime	-	O	-
Elapsed_Active_Time	Unsigned	-	O	-
Time_Of_Active_Time_Reset	BACnetDatetime	-	O	-
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
Alarm_Value	BACnetBinaryPV	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

5.3.16 ID2Net_Ch1_Fault (Binary Input Object Type)

It indicates that a Fault situation has been detected on the Ch1 of the ID2net.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Binary Input, 13)	R	R
Object_Name	CharacterString	"ID2Net_Ch1_Fault"	R	R
Object_Type	BACnetObjectType	BINARY_INPUT (3)	R	R
Present_Value	BACnetBinaryPV	INACTIVE (0) / ACTIVE (1)	R	R
Description	CharacterString	"ID2Net_Ch1_Fault"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL (0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	FALSE/TRUE	R	R
Polarity	BACnetPolarity	NORMAL (0)	R	R
Inactive_Text	CharacterString	"Inactive"	O	R
Active_Text	CharacterString	"Active"	O	R
Change_Of_State_Time	BACnetDatetime	-	O	-
Change_Of_State_Count	Unsigned	-	O	-
Time_Of_State_Count_Reset	BACnetDatetime	-	O	-
Elapsed_Active_Time	Unsigned	-	O	-
Time_Of_Active_Time_Reset	BACnetDatetime	-	O	-
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
Alarm_Value	BACnetBinaryPV	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

5.3.17 ID2Net_Ch2_Fault (Binary Input Object Type)

It indicates that a Fault situation has been detected on the Ch2 of the ID2net.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Binary Input, 14)	R	R
Object_Name	CharacterString	"ID2Net_Ch2_Fault"	R	R
Object_Type	BACnetObjectType	BINARY_INPUT (3)	R	R
Present_Value	BACnetBinaryPV	INACTIVE (0) / ACTIVE (1)	R	R
Description	CharacterString	"ID2Net_Ch2_Fault"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL (0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	FALSE/TRUE	R	R
Polarity	BACnetPolarity	NORMAL (0)	R	R
Inactive_Text	CharacterString	"Inactive"	O	R
Active_Text	CharacterString	"Active"	O	R
Change_Of_State_Time	BACnetDatetime	-	O	-
Change_Of_State_Count	Unsigned	-	O	-
Time_Of_State_Count_Reset	BACnetDatetime	-	O	-
Elapsed_Active_Time	Unsigned	-	O	-
Time_Of_Active_Time_Reset	BACnetDatetime	-	O	-
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
Alarm_Value	BACnetBinaryPV	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

5.3.18 CMD_System_Reset (Binary Output Object Type)

When a '1' value is set, a System Reset is executed in the fire panel.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Binary Output, 0)	R	R
Object_Name	CharacterString	"CMD_System_Reset"	R	R
Object_Type	BACnetObjectType	BINARY_OUTPUT(4)	R	R
Present_Value	BACnetBinaryPV	INACTIVE (0) / ACTIVE (1)	W	W
Description	CharacterString	"CMD_System_Reset"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL (0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	TRUE/FALSE	R	R
Polarity	BACnetPolarity	NORMAL (0)	R	R
Inactive_Text	CharacterString	"Inactive"	O	R
Active_Text	CharacterString	"Active"	O	R
Change_Of_State_Time	BACnetDatetime	-	O	-
Change_Of_State_Count	Unsigned	-	O	-
Time_Of_State_Count_Reset	BACnetDatetime	-	O	-
Elapsed_Active_Time	Unsigned	-	O	-
Time_Of_Active_Time_Reset	BACnetDatetime	-	O	-
Minimum_Off_Time	Unsigned32	-	O	-
Minimum_On_Time	Unsigned32	-	O	-
Priority_Array	BACnetPriorityArray	-	R	R
Relinquish_Default	BACnetBinaryPV	-	R	R
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
Feedback_Value	BACnetBinaryPV	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

5.3.19 CMD_Terminate_Test (Binary Output Object Type)

When a '1' value is set, the test finishes.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Binary Output, 1)	R	R
Object_Name	CharacterString	"CMD_Terminate_Test"	R	R
Object_Type	BACnetObjectType	BINARY_OUTPUT(4)	R	R
Present_Value	BACnetBinaryPV	INACTIVE (0) / ACTIVE (1)	W	W
Description	CharacterString	"CMD_Terminate_Test"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL (0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	TRUE/FALSE	R	R
Polarity	BACnetPolarity	NORMAL (0)	R	R
Inactive_Text	CharacterString	"Inactive"	O	R
Active_Text	CharacterString	"Active"	O	R
Change_Of_State_Time	BACnetDatetime	-	O	-
Change_Of_State_Count	Unsigned	-	O	-
Time_Of_State_Count_Reset	BACnetDatetime	-	O	-
Elapsed_Active_Time	Unsigned	-	O	-
Time_Of_Active_Time_Reset	BACnetDatetime	-	O	-
Minimum_Off_Time	Unsigned32	-	O	-
Minimum_On_Time	Unsigned32	-	O	-
Priority_Array	BACnetPriorityArray	-	R	R
Relinquish_Default	BACnetBinaryPV	-	R	R
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
Feedback_Value	BACnetBinaryPV	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

5.3.20 CMD_Silence_Sounders (Binary Output Object Type)

When a '1' value is set, the Sounders turn Off.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Binary Output, 2)	R	R
Object_Name	CharacterString	"CMD_Silence_Sounders"	R	R
Object_Type	BACnetObjectType	BINARY_OUTPUT(4)	R	R
Present_Value	BACnetBinaryPV	INACTIVE (0) / ACTIVE (1)	W	W
Description	CharacterString	"CMD_Silence_Sounders"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL (0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	TRUE/FALSE	R	R
Polarity	BACnetPolarity	NORMAL (0)	R	R
Inactive_Text	CharacterString	"Inactive"	O	R
Active_Text	CharacterString	"Active"	O	R
Change_Of_State_Time	BACnetDatetime	-	O	-
Change_Of_State_Count	Unsigned	-	O	-
Time_Of_State_Count_Reset	BACnetDatetime	-	O	-
Elapsed_Active_Time	Unsigned	-	O	-
Time_Of_Active_Time_Reset	BACnetDatetime	-	O	-
Minimum_Off_Time	Unsigned32	-	O	-
Minimum_On_Time	Unsigned32	-	O	-
Priority_Array	BACnetPriorityArray	-	R	R
Relinquish_Default	BACnetBinaryPV	-	R	R
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
Feedback_Value	BACnetBinaryPV	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

5.3.21 CMD_Mute_Buzzer (Binary Output Object Type)

When a '1' value is set, the Buzzer turns into mute mode.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Binary Output, 3)	R	R
Object_Name	CharacterString	"CMD_Mute_Buzzer"	R	R
Object_Type	BACnetObjectType	BINARY_OUTPUT(4)	R	R
Present_Value	BACnetBinaryPV	INACTIVE(0)/ACTIVE(1) (Default: INACTIVE)	W	W
Description	CharacterString	"CMD_Mute_Buzzer"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL (0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	TRUE/FALSE (Default: TRUE)	R	R
Polarity	BACnetPolarity	NORMAL (0)	R	R
Inactive_Text	CharacterString	"Inactive"	O	R
Active_Text	CharacterString	"Active"	O	R
Change_Of_State_Time	BACnetDatetime	-	O	-
Change_Of_State_Count	Unsigned	-	O	-
Time_Of_State_Count_Reset	BACnetDatetime	-	O	-
Elapsed_Active_Time	Unsigned	-	O	-
Time_Of_Active_Time_Reset	BACnetDatetime	-	O	-
Minimum_Off_Time	Unsigned32	-	O	-
Minimum_On_Time	Unsigned32	-	O	-
Priority_Array	BACnetPriorityArray	-	R	R
Relinquish_Default	BACnetBinaryPV	-	R	R
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
Feedback_Value	BACnetBinaryPV	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

5.3.22 CMD_Evacuate (Binary Output Object Type)

When a '1' value is set, the Evacuate process starts.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Binary Output, 4)	R	R
Object_Name	CharacterString	"CMD_Evacuate"	R	R
Object_Type	BACnetObjectType	BINARY_OUTPUT(4)	R	R
Present_Value	BACnetBinaryPV	INACTIVE (0) / ACTIVE (1)	W	W
Description	CharacterString	"CMD_Evacuate"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL (0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	TRUE/FALSE	R	R
Polarity	BACnetPolarity	NORMAL (0)	R	R
Inactive_Text	CharacterString	"Inactive"	O	R
Active_Text	CharacterString	"Active"	O	R
Change_Of_State_Time	BACnetDatetime	-	O	-
Change_Of_State_Count	Unsigned	-	O	-
Time_Of_State_Count_Reset	BACnetDatetime	-	O	-
Elapsed_Active_Time	Unsigned	-	O	-
Time_Of_Active_Time_Reset	BACnetDatetime	-	O	-
Minimum_Off_Time	Unsigned32	-	O	-
Minimum_On_Time	Unsigned32	-	O	-
Priority_Array	BACnetPriorityArray	-	R	R
Relinquish_Default	BACnetBinaryPV	-	R	R
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
Feedback_Value	BACnetBinaryPV	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

5.3.23 CMD_Test_Sounders (Binary Output Object Type)

When a '1' value is set, the Sounders turn into test mode.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Binary Output, 5)	R	R
Object_Name	CharacterString	"CMD_Test_Sounders"	R	R
Object_Type	BACnetObjectType	BINARY_OUTPUT(4)	R	R
Present_Value	BACnetBinaryPV	INACTIVE (0) / ACTIVE (1)	W	W
Description	CharacterString	"CMD_Test_Sounders"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL (0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	TRUE/FALSE	R	R
Polarity	BACnetPolarity	NORMAL (0)	R	R
Inactive_Text	CharacterString	"Inactive"	O	R
Active_Text	CharacterString	"Active"	O	R
Change_Of_State_Time	BACnetDatetime	-	O	-
Change_Of_State_Count	Unsigned	-	O	-
Time_Of_State_Count_Reset	BACnetDatetime	-	O	-
Elapsed_Active_Time	Unsigned	-	O	-
Time_Of_Active_Time_Reset	BACnetDatetime	-	O	-
Minimum_Off_Time	Unsigned32	-	O	-
Minimum_On_Time	Unsigned32	-	O	-
Priority_Array	BACnetPriorityArray	-	R	R
Relinquish_Default	BACnetBinaryPV	-	R	R
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
Feedback_Value	BACnetBinaryPV	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

5.3.24 CMD_Resound_Sounders (Binary Output Object Type)

When a '1' value is set, Sounders turn into resound mode.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Binary Output, 6)	R	R
Object_Name	CharacterString	"CMD_Resound_Sounders"	R	R
Object_Type	BACnetObjectType	BINARY_OUTPUT(4)	R	R
Present_Value	BACnetBinaryPV	INACTIVE (0) / ACTIVE (1)	W	W
Description	CharacterString	"CMD_Resound_Sounders"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL (0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	TRUE/FALSE	R	R
Polarity	BACnetPolarity	NORMAL (0)	R	R
Inactive_Text	CharacterString	"Inactive"	O	R
Active_Text	CharacterString	"Active"	O	R
Change_Of_State_Time	BACnetDatetime	-	O	-
Change_Of_State_Count	Unsigned	-	O	-
Time_Of_State_Count_Reset	BACnetDatetime	-	O	-
Elapsed_Active_Time	Unsigned	-	O	-
Time_Of_Active_Time_Reset	BACnetDatetime	-	O	-
Minimum_Off_Time	Unsigned32	-	O	-
Minimum_On_Time	Unsigned32	-	O	-
Priority_Array	BACnetPriorityArray	-	R	R
Relinquish_Default	BACnetBinaryPV	-	R	R
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
Feedback_Value	BACnetBinaryPV	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

5.3.25 LoDdd_Status (Multistate Input Object Type)

It indicates the status of the detector.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Multi-state Input, (o*256)+dd)	R	R
Object_Name	CharacterString	"LoDdd_Status"	R	R
Object_Type	BACnetObjectType	MULTISTATE_INPUT(13)	R	R
Present_Value	Unsigned	1 ~ 32	R	R
Description	CharacterString	"Detector status"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL(0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	FALSE/TRUE	R	R
Number_Of_States	Unsigned	32	R	R
State_Text	BACnetArray[32] of CharacterString	<i>Check Detector Status setting table below.</i>	O	R
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
Alarm_Values	List of Unsigned	-	O	-
Fault_Values	List of Unsigned	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

Detector status setting table

Detector status interpretation is possible using the value in the following correspondence table.

A: Alarm
 P: Pre-Alarm
 F: Fault
 D: Disabled
 T: Test

Pesent_Value	Contents displayed in State_Text
1	Alarm
2	Pre-Alarm
3	-/-/-/P/A
4	Fault
5	-/-/F/-/A
6	-/-/F/P/-
7	-/-/F/P/A
8	Disabled
9	-/D/-/-/A
10	-/D/-/P/-
11	-/D/-/P/A
12	-/D/F/-/-
13	-/D/F/-/A
14	-/D/F/P/-
15	-/D/F/P/A
16	Test
17	T/-/-/-/A
18	T/-/-/P/-
19	T/-/-/P/A
20	T/-/F/-/-
21	T/-/F/-/A
22	T/-/F/P/-
23	T/-/F/P/A
24	T/D/-/-/-
25	T/D/-/-/A
26	T/D/-/P/-
27	T/D/-/P/A
28	T/D/F/-/-
29	T/D/F/-/A
30	T/D/F/P/-
31	T/D/F/P/A
32	Normal

5.3.26 LoDdd_Command (Multistate Output Object Type)

It allows controll over the detector.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Multi-state Output, (o*256)+dd)	R	R
Object_Name	CharacterString	"LoDdd_Command"	R	R
Object_Type	BACnetObjectType	MULTISTATE_OUTPUT(14)	R	R
Present_Value	Unsigned	1 ~ 2	W	W
Description	CharacterString	"Detector command"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL (0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	FALSE/TRUE	R	R
Number_Of_States	Unsigned	2	R	R
State_Text	BACnetArray[2] of CharacterString	<i>Check Detector Command setting table below</i>	O	R
Priority_Array	BACnetPriorityArray	-	R	R
Relinquish_Default	Unsigned	-	R	R
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
Feedback_Value	Unsigned	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

Detector Command setting table

Detector command interpretation is possible using the value in the following correspondence table.

Present_Value	Contents displayed in State_Text
1	Enable
2	Disable

5.3.27 LoDdd_Level (Analog Input Object Type)

It indicates the average detection level in the detector expressed in %.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Analog Input, (o*256) + dd))	R	R
Object_Name	CharacterString	"LoDdd_Level"	R	R
Object_Type	BACnetObjectType	ANALOG_INPUT (0)	R	R
Present_Value	REAL	0..255	R	R
Description	CharacterString	"Detector measured level"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL (0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	FALSE/TRUE	R	R
Update_Interval	Unsigned	300	O	R
Units	BACnetEngineeringUnits	Levels: PERCENT (98)	R	R
Min_Pres_Value	REAL	0	O	R
Max_Pres_Value	REAL	255	O	R
Resolution	REAL	1	O	R
COV_Increment	REAL	1	O	R
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
High_Limit	REAL	-	O	-
Low_Limit	REAL	-	O	-
Deadband	REAL	-	O	-
Limit_Enable	BACnetLimitEnable	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

5.3.28 LoMmm_Status (Multistate Input Object Type)

It indicates the status of the module.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Multi-state Input, (o*256)+100+mm)	R	R
Object_Name	CharacterString	"LoMmm_Status"	R	R
Object_Type	BACnetObjectType	MULTISTATE_INPUT (13)	R	R
Present_Value	Unsigned	1 ~ 32	R	R
Description	CharacterString	"Module status"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL(0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	FALSE/TRUE	R	R
Number_Of_States	Unsigned	32	R	R
State_Text	BACnetArray[32] of CharacterString	<i>Check Module Status setting table below.</i>	O	R
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
Alarm_Values	List of Unsigned	-	O	-
Fault_Values	List of Unsigned	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

Module Status setting table

Module status interpretation is possible using the value in the following correspondence table.

A: Active
 P: Pre-Alarm
 F: Fault
 D: Disabled
 T: Test

Pesent_Value	Contents displayed in State_Text
1	Active
2	Pre-Alarm
3	-/-/-/P/A
4	Fault
5	-/-/F/-/A
6	-/-/F/P/-
7	-/-/F/P/A
8	Disabled
9	-/D/-/-/A
10	-/D/-/P/-
11	-/D/-/P/A
12	-/D/F/-/-
13	-/D/F/-/A
14	-/D/F/P/-
15	-/D/F/P/A
16	Test
17	T/-/-/-/A
18	T/-/-/P/-
19	T/-/-/P/A
20	T/-/F/-/-
21	T/-/F/-/A
22	T/-/F/P/-
23	T/-/F/P/A
24	T/D/-/-/-
25	T/D/-/-/A
26	T/D/-/P/-
27	T/D/-/P/A
28	T/D/F/-/-
29	T/D/F/-/A
30	T/D/F/P/-
31	T/D/F/P/A
32	Inactive

5.3.29 LoMmm_Command (Multistate Output Object Type)

It allows controll over the module.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Multi-state Output, (o*256)+100+mm)	R	R
Object_Name	CharacterString	"LoMmm_Command"	R	R
Object_Type	BACnetObjectType	MULTISTATE_OUTPUT(14)	R	R
Present_Value	Unsigned	1 ~ 4	W	W
Description	CharacterString	"Module command"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL(0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	FALSE/TRUE	R	R
Number_Of_States	Unsigned	4	R	R
State_Text	BACnetArray[4] of CharacterString	<i>Check Module Command setting table below</i>	O	R
Priority_Array	BACnetPriorityArray	-	R	R
Relinquish_Default	Unsigned	-	R	R
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
Feedback_Value	Unsigned	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

Module Command setting table

Module status interpretation is possible using the value in the following correspondence table.

Present_Value	Contents displayed in State_Text
1	Enable
2	Disable
3	Activate
4	Deactivate

5.3.30 LoMmm_Level (Analog Input Object Type)

It indicates the average detection level in the module expressed in %.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Analog Input, (o*256) + mm))	R	R
Object_Name	CharacterString	"LoMmm_Level"	R	R
Object_Type	BACnetObjectType	ANALOG_INPUT (0)	R	R
Present_Value	REAL	0..255	R	R
Description	CharacterString	"Module measured level"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL (0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	FALSE/TRUE	R	R
Update_Interval	Unsigned	300	O	R
Units	BACnetEngineeringUnits	PERCENT (98)	R	R
Min_Pres_Value	REAL	0	O	R
Max_Pres_Value	REAL	Levels: 255	O	R
Resolution	REAL	1	O	R
COV_Increment	REAL	1	O	R
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
High_Limit	REAL	-	O	-
Low_Limit	REAL	-	O	-
Deadband	REAL	-	O	-
Limit_Enable	BACnetLimitEnable	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

5.3.31 Zzzz_Status (Multistate Input Object Type)

It indicates the status of the zone.

Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Multi-state Input, (9*256)+zzz)	R	R
Object_Name	CharacterString	"Zzzz_Status"	R	R
Object_Type	BACnetObjectType	MULTISTATE_INPUT(13)	R	R
Present_Value	Unsigned	1 ~ 48	R	R
Description	CharacterString	"Zone status"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL(0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED(0)	O	R
Out_Of_Service	BOOLEAN	FALSE/TRUE	R	R
Number_Of_States	Unsigned	48	R	R
State_Text	BACnetArray[48] of CharacterString	<i>Check Zone Status setting table below.</i>	O	R
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
Alarm_Values	List of Unsigned	-	O	-
Fault_Values	List of Unsigned	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

Zone status setting table

Detector status interpretation is possible using the value in the following correspondence table.

A: Alarm
 P: Pre-Alarm
 F: Fault
 T: Walk Test
 d: Partially Disabled
 D: Totally Disabled

Pesent_Value	Contents displayed in State_Text
1	Alarm
2	PreAlarm
3	-/-/-/-/P/A
4	Fault
5	-/-/-/F/-/A
6	-/-/-/F/P/-
7	-/-/-/F/P/A
8	Walk Test
9	-/-/T/-/-/A
10	-/-/T/-/P/-
11	-/-/T/-/P/A
12	-/-/T/F/-/-
13	-/-/T/F/-/A
14	-/-/T/F/P/-
15	-/-/T/F/P/A
16	Partially Disabled
17	-/d/-/-/-/A
18	-/d/-/-/P/-
19	-/d/-/-/P/A
20	-/d/-/F/-/-
21	-/d/-/F/-/A
22	-/d/-/F/P/-
23	-/d/-/F/P/A
24	-/d/T/-/-/-

Pesent_Value	Contents displayed in State_Text
25	-/d/T/-/-/A
26	-/d/T/-/P/-
27	-/d/T/-/P/A
28	-/d/T/F/-/-
29	-/d/T/F/-/A
30	-/d/T/F/P/-
31	-/d/T/F/P/A
32	Totally Disabled
33	D/-/-/-/-/A
34	D/-/-/-/P/-
35	D/-/-/-/P/A
36	D/-/-/F/-/-
37	D/-/-/F/-/A
38	D/-/-/F/P/-
39	D/-/-/F/P/A
40	D/-/T/-/-/-
41	D/-/T/-/-/A
42	D/-/T/-/P/-
43	D/-/T/-/P/A
44	D/-/T/F/-/-
45	D/-/T/F/-/A
46	D/-/T/F/P/-
47	D/-/T/F/P/A
48	Normal

5.3.32 Zzzz_Command (Multistate Output Object Type)

It allows control over the zone.

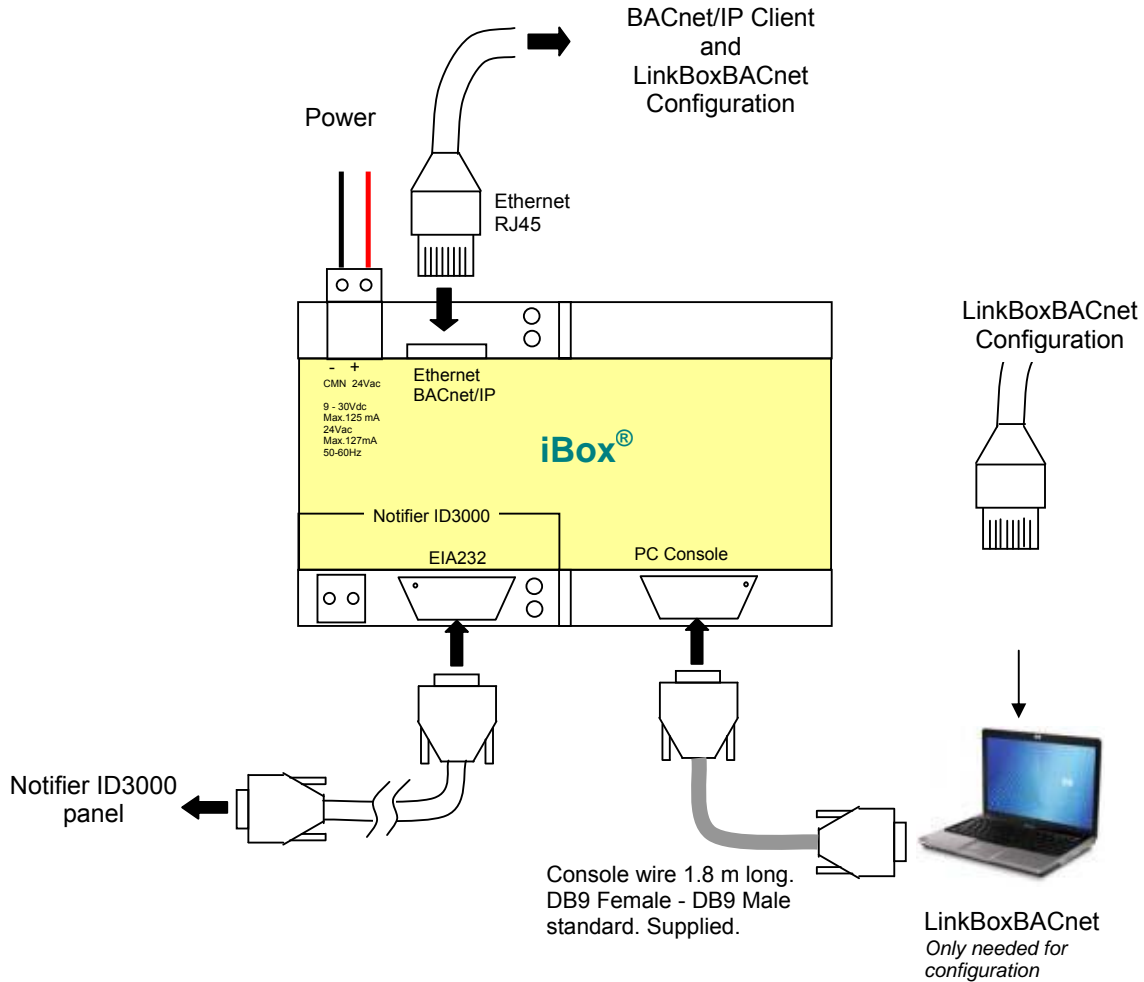
Property Identifier	Property Datatype	Value	ASHRAE	IBOX
Object_Identifier	BACnetObjectIdentifier	(Multi-state Output, (9*256)+zzz)	R	R
Object_Name	CharacterString	"Zzzz_Command"	R	R
Object_Type	BACnetObjectType	MULTISTATE_OUTPUT(14)	R	R
Present_Value	Unsigned	1 ~ 4	W	W
Description	CharacterString	"Zone command"	O	R
Device_Type	CharacterString	"ID3000"	O	R
Status_Flags	BACnetStatusFlags	{FALSE, FALSE, FALSE, TRUE/FALSE}	R	R
Event_State	BACnetEventState	STATE_NORMAL(0)	R	R
Reliability	BACnetReliability	NO_FAULT_DETECTED (0)	O	R
Out_Of_Service	BOOLEAN	FALSE/TRUE	R	R
Number_Of_States	Unsigned	4	R	R
State_Text	BACnetArray[4] of CharacterString	<i>Check Zone Command setting table below</i>	O	R
Priority_Array	BACnetPriorityArray	-	R	R
Relinquish_Default	Unsigned	-	R	R
Time_Delay	Unsigned	-	O	-
Notification_Class	Unsigned	-	O	-
Feedback_Value	Unsigned	-	O	-
Event_Enable	BACnetEventTransitionBits	-	O	-
Acked_Transitions	BACnetEventTransitionBits	-	O	-
Notify_Type	BACnetNotifyType	-	O	-
Event_Time_Stamps	BACnetArray[N] of BACnetTimeStamp	-	O	-
Profile_Name	CharacterString	-	O	-

Zone Command setting table

Zone commands can be set using the values in the following correspondence table.

Present_Value	Contents displayed in State_Text
1	Enable
2	Disable
3	Start Test
4	Stop Test

6 Connections



Ensure proper space for all connectors when mounted.

The items supplied by Intesis Software for this integration are:

- iBox BACnet/IP Server.
- Console cable. Standard DB9F-DB9M cable 1.8 meter long.
- Installation sheet, containing a link to the LinkBoxBACnet software and this manual.

6.1 Power device

The first step to perform is to power up the device. To do so a power supply working with any of the voltage range allowed is needed (check section 8). Once connected the ON led (Figure above) will turn on.

WARNING! In order to avoid earth loops that can damage the gateway and/or any other equipment connected to it, we strongly recommend:

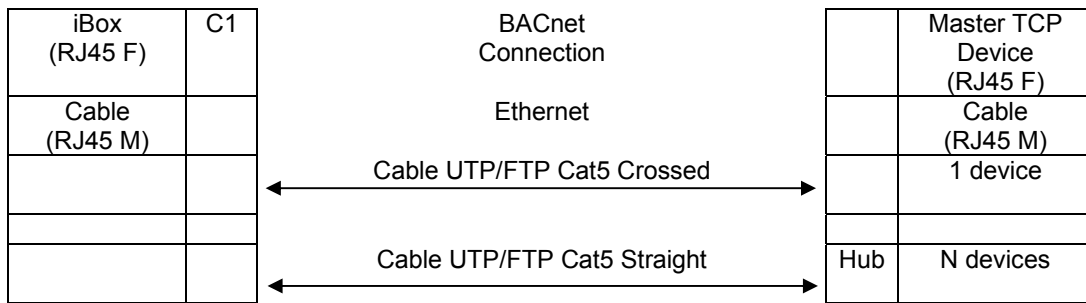
- The use of DC power supplies, floating or with the negative terminal connected to earth. **Never use a DC power supply with the positive terminal connected to earth.**
- The use of AC power supplies only if they are floating and not powering any other device.

6.2 Connect to BACnet

Connect the communication cable coming from the network hub or switch to the ETH port (Figure above) of iBox. The cable to be used depends on where the iBox is being connected:

- Connecting directly to a BACnet/IP device: crossover Ethernet UTP/FTP CAT5 cable
- Connecting to a hub or switch of the LAN of the building: a straight Ethernet UTP/FTP CAT5 cable

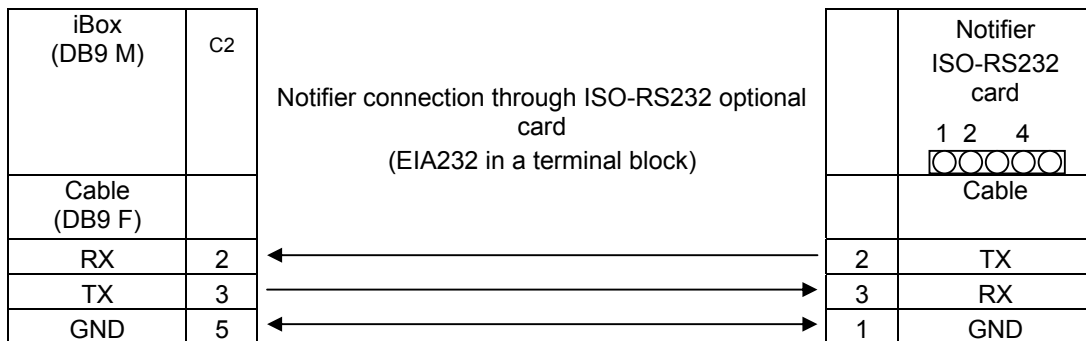
In case there is no response from the BACnet devices to the frames sent by iBox, check that they are operative and reachable from the network connection used by iBox. Check the iBox Ethernet interface sending Pings to its IP address using a PC connected to the same Ethernet network.

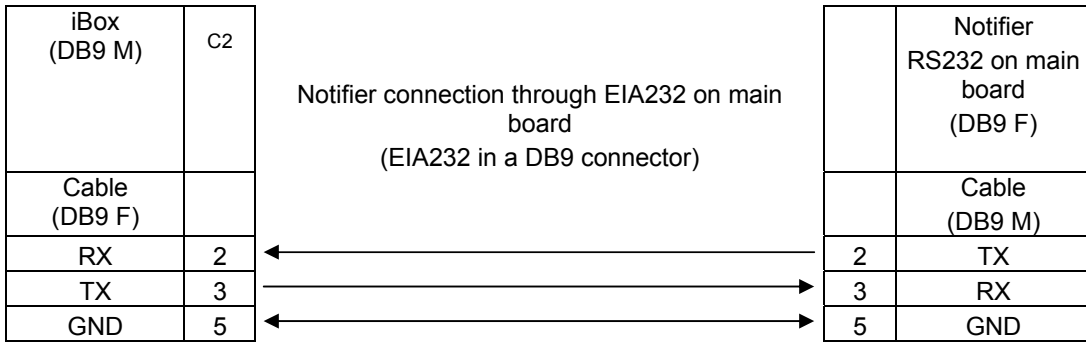


6.3 Connect to Notifier panel interface

iBox supports protocols full duplex (panel main board) and half duplex (opto-isolated ISO RS232 board, recommended). Configuration can be done by selecting a few parameters such as port (COM), baud rate, etc.

It is necessary to have the Notifier interface reachable to properly connect the EIA232 cable to the Notifier panel connector.

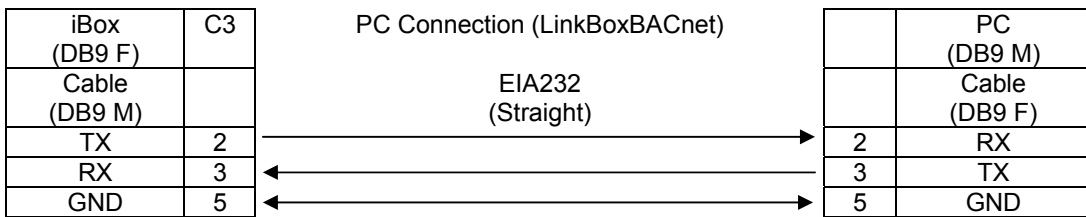




6.4 Connect to PC (LinkBoxBACnet)

This action allows the user to have access to configuration and monitoring of the device (more information can be found in the LinkBoxBACnet User Manual). Two methods to connect to the PC can be used:

- Ethernet: Using the ETH port of iBox. How to check connectivity is explained in section 6.2.
- Serial cable: To connect the device to the PC the serial cable supplied should be plugged to the PC console port
The cable is a RS-232 straight cable and its pinout is at explained in table below.



7 Set-up process and troubleshooting

7.1 Pre-requisites

It is necessary to have the BACnet/IP device operative and well connected to the BACnet/IP port of iBox and the Notifier panel with an RS232 port operative. Remember that you need to respect the 15 meters maximum cable length if using RS232 communication.

Connectors, connection cables, PC for LinkBoxBACnet, and other auxiliary material, if needed, are not supplied by Intesis Software for this standard integration.

Items supplied by Intesis Software for this integration are:

- iBox BACnet/IP Server device with Notifier ID3000 external protocol firmware loaded.
- LinkBoxBACnet software to configure iBox.
- Console cable needed to download the configuration to iBox.
- Product documentation.

7.2 LinkBoxBACnet. Configuration & monitoring tool for iBox BACnet series

7.2.1 Introduction

LinkBoxBACnet is a Windows® compatible software developed specifically to monitor and configure iBox BACnet series.

The installation procedure and main functions are explained in the *LinkBoxBACnet User Manual*. This document can be found in the Doc folder, or can be downloaded from the link indicated in the installation sheet supplied with the iBox device.

In this section, only the specific case of Notifier ID3000 panel integration to BACnet systems will be covered.

7.2.2 Connections configuration

To configure the iBox connection parameters and to see the points list, press on the **Config** button in the *menu bar* (see Figure 7.1). The *Notifier Configuration* window will open (see Figure 7.2).

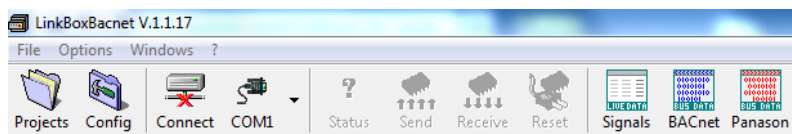


Figure 7.1 LinkBoxBACnet *menu bar*

7.2.2.1 Configuration tab

Select the **Connection** tab to configure the connection parameters. Two subsets of information are shown in this window: BACnet/IP (BACnet interface and IP interface for configuration) and Notifier interface parameters (see Figure 7.2).

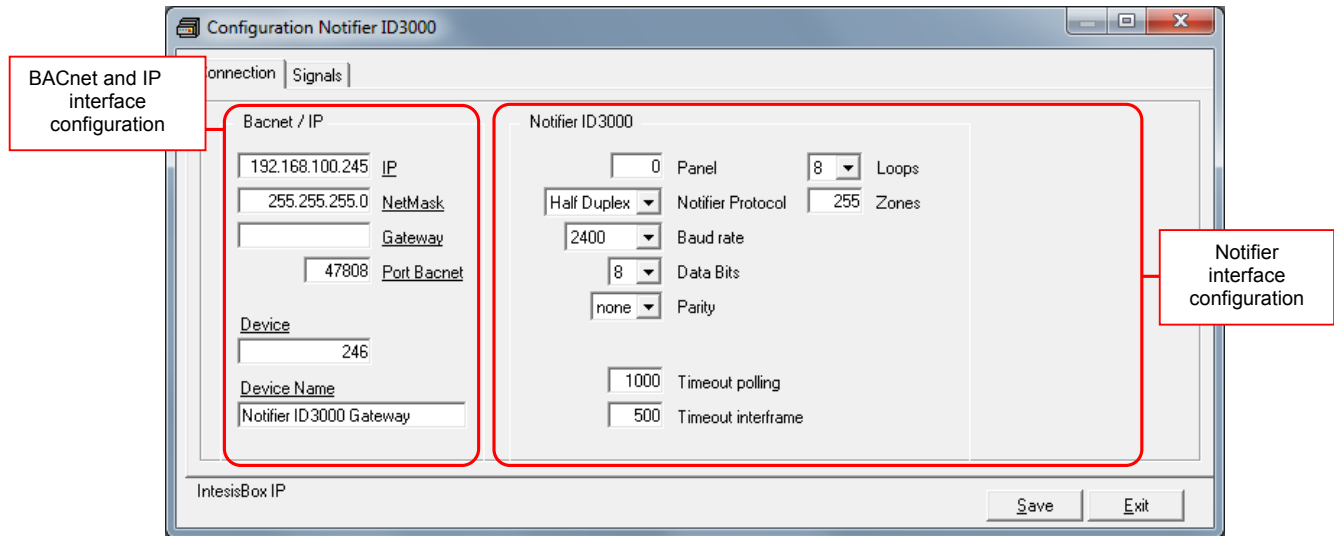


Figure 7.2 LinkBoxBACnet configuration tab

Next, there is an explanation for each of the configuration parameters in each mode.

- BACnet/IP interface configuration parameters:

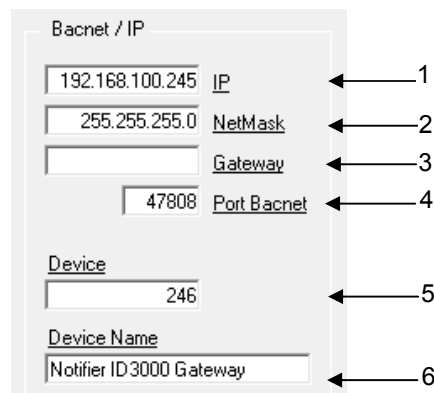


Figure 7.3 BACnet/IP interface configuration

1. **IP:** Enter the IP address for the gateway.
2. **NetMask:** Enter the iBox net mask address.
3. **Gateway:** Enter the router or default gateway address if needed. In case you don't want to use it, left blank.
4. **Port BACnet:** Used port for BACnet communications.
5. **Device:** Device BACnet number.
6. **Device Name:** Device BACnet name and description.

- Notifier side configuration parameters:

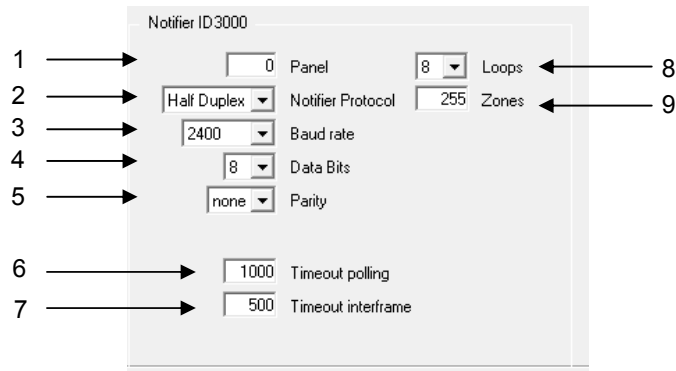


Figure 7.4 BACnet/IP interface configuration.

- 1. Panel:** Number of Notifier panel to integrate, although only one panel can be integrated it can be the panel physically connected to the iBox or any other panel connected in network (Notifier network), so the number to introduce here can be:
 - 0 in case of standalone panel integration (default value).
 - 1 to 125 in case of a panel in an ID2net network.
- 2. Notifier protocol:** Notifier protocol to use. It has different options:
 - Select *Full Duplex* if the RS232 port of the main board of the panel is used. See section 10 for details of the procedure to follow to configure this port in the panel.
 - Select *Half Duplex* if the optional ISO-RS232 card is used. **This is the connection recommended.** See in Annex 1 for details of the procedure to follow to configure this port in the panel.

A selection of 2400bps baud rate is highly recommended for a proper handling of communication messages by the panel.
- 3. Baud rate:** Baud rate to use to communicate with the panel.
Value ranges vary from 1200 to 9600 bps (2400 bps by default).
- 4. Data bits:** Data bits to use to communicate with the panel.
Value: 8 bits.
- 5. Parity:** Parity to use to communicate with the panel.
Value ranges can be *none (default)*, *odd*, *even* and *2stop* (none parity and 2 stop bits).
- 6. Timeout polling:** Time to wait for response of the panel before resend the communication telegram (in milliseconds). After 20 attempts without response of the panel the communication error signal will be activated.
Value ranges vary from 100 to 30000 ms (8000 ms by default)
- 7. Timeout interframe:** Minimum time to wait (in milliseconds) between two consecutive telegrams sent by iBox. Value ranges vary from 100 to 10000 ms (500 ms by default).
- 8. Loops:** Number of loops used in the Notifier panel.
Value ranges vary from 1 to 8 loops (8 by default).
- 9. Zones:** Number of zones used in the Notifier panel.
Value ranges vary from 0 to 255 zones (255 by default).

Additional configuration parameters should generally be left to their default value. They only might need to be tuned in some very specific cases (installations with large number of units, scenarios with large bursts of commands sent at once ...).

7.2.2.2 Signals

All available objects, Object Instance and its possible values are listed in the signals tab. The aim of this table is to have a small summary of what's in the manuals.

#	Bac Type	Object Instance	Object BACnet name	Values
1	3-Binary Input	0	Communication_Error	0-Inactive, 1-Active
2	0-Analog Input	0	System_Events (last event received)	128..999 (see Notifier documentation)
3	3-Binary Input	1	Fire	0-Inactive, 1-Active
4	3-Binary Input	2	Pre-Alarm	0-Inactive, 1-Active
5	3-Binary Input	3	Fault	0-Inactive, 1-Active
6	3-Binary Input	4	Device/s_disconnected	0-Inactive, 1-Active
7	3-Binary Input	5	Evacuate	0-Inactive, 1-Active
8	3-Binary Input	6	Test_in_progress	0-Inactive, 1-Active
9	3-Binary Input	7	Engineer_mode	0-Inactive, 1-Active
10	3-Binary Input	8	Network_Fault	0-Inactive, 1-Active

Figure 7.5 Signal list

1. **BACnet type:** Type of BACnet object.
2. **Object Instance:** BACnet object instance. This can be a fixed number or a formula for the identification of each element.
3. **Object BACnet name:** Signal's descriptive name that identifies the signal.
4. **Values:** Different possible values and its meaning.

7.2.3 Sending the configuration to iBox®

When the configuration is finished, follow the next steps.

- 1.- Click on **Save** button to save the project to the project folder on your hard disk (more information in LinkBoxBACnet User Manual).
- 2.- You will be prompted to generate the configuration file to be sent to the gateway.
 - a.- If **Yes** is selected, the binary file (NOTIFIER.Lbox) containing the configuration for the gateway will be generated and saved also into the project folder.
 - b.- If **NO** is selected, remember that the binary file with the project needs to be generated before the iBox starts to work as expected.
- 3.- Once in the configuration window again, click on **exit**. Configuration file is ready to be sent to the iBox device.
- 4.- Press the **Send File** button to send the binary file to the iBox device. The process of file transmission can be monitored in the iBoxCommunication Console window. iBox will reboot automatically once the new configuration is loaded.

After any configuration change, do not forget to send the configuration file to the iBox using the button Send File.

7.2.4 Signals viewer

Once the gateway is running with the correct configuration, to supervise the status of the configured signals, press the **Signals** button on the *menu* bar (see Figure 7.1). The Signals Viewer window will open (see Figure 7.6). This window shows all signals active within the gateway with its main configuration parameters and its real time value¹ in the **Value** column.

¹ In case you connect to the iBox when it's been running for a certain time, you should press the *Refresh* button to get updated values. After pressing *Refresh*, all signal values will keep continuously updated until the connection is closed.

#	Bac.Type	Object Inst.	Bac.Name	Value
1	0-AI	0	System_Events (last event received: 128.999)	
2	3-BI	0	Communication_Error (0-Inactive, 1-Active)	
3	3-BI	1	Fire (0-Inactive, 1-Active)	
4	3-BI	2	Pre_Alarm (0-Inactive, 1-Active)	
5	3-BI	3	Fault (0-Inactive, 1-Active)	
6	3-BI	4	Devices_disconnected (0-Inactive, 1-Active)	
7	3-BI	5	Evacuate (0-Inactive, 1-Active)	
8	3-BI	6	Test_in_progress (0-Inactive, 1-Active)	
9	3-BI	7	Engineer_mode (0-Inactive, 1-Active)	
10	3-BI	8	Network_Fault (0-Inactive, 1-Active)	
11	3-BI	9	Sounders_delayed_mode (0-Inactive, 1-Active)	
12	3-BI	10	Sounders_Off (0-Inactive, 1-Active)	
13	3-BI	11	Day_Mode (0-Inactive, 1-Active)	
14	3-BI	12	Routing_Equipment_disabled (0-Inactive, 1-Active)	
15	3-BI	13	ID2Net_Ch1_Fault (0-Inactive, 1-Active)	

Figure 7.6 LinkBoxBACnet Signals Viewer

The signals viewer can be used even though only one system is connected to the iBox[®], BACnet or Notifier. Therefore, it becomes convenient for supervision and testing the system.

In order to force a specific value to a signal, double-click its row in the table. This will display a dialog in which the desired value can be entered (see Figure 7.7). Changing its value in this way, will make:

- The content of the corresponding object will be changed to this value.
- If the signal is write-enabled, it will trigger a suitable command to Notifier ID3000 panel.

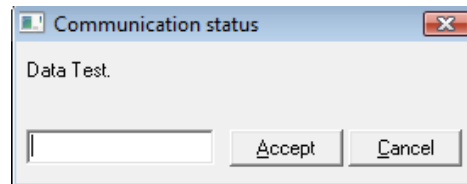


Figure 7.7 Signal value change window

7.2.5 Files

LinkBoxBACnet saves the integration configuration in the following files inside the project folder:

File name	File description
Project.ini	INI file containing general information related to the project.
NotifierID3000.ini	INI file containing information related with the values configured through the "Connection" tab in iBoxconfiguration.
NotifierID3000.Lbox	Binary file created from the information in the files described above. This is the file downloaded to the iBox [®] .
NotifierID3000.dat	ASCII file containing the summary object list.

Table 7.1 LinkBoxBACnet generated files during Project creation

It is strongly recommended to back up the project folder containing these files in external media, once the installation process is finished. This way you will be able to do future configuration changes in case of reinstallation of LinkBoxBACnet due, for example, to a failure of the hard disk in the PC where LinkBoxBACnet was installed.

The configuration cannot be uploaded from the gateway to LinkBoxBACnet, it can only be downloaded.

7.2.6 Set-up procedure

1. Install LinkBoxBACnet on your laptop, use the setup program supplied for this and follow the instructions given by the Installation wizard.
2. Install iBox in the desired installation site. The mounting can be on DIN rail or on a stable not vibrating surface (DIN rail mounted inside a metallic industrial cabinet connected to ground beside the Panel is recommended).
3. Connect the communication cable coming from the BACnet IP network to the port marked as **BACnet/IP** of iBox (More details in section 0).
4. Connect the communication cable coming from the RS232 port of the Notifier to the port marked as **Notifier** of iBox (More details in section 0).
5. Power up iBox. The supply voltage can be 9 to 30 Vdc or just 24 Vac. Take care of the polarity of the supply voltage applied.

WARNING! In order to avoid earth loops that can damage iBox and/or any other equipment connected to it, we strongly recommend:

- The use of DC power supplies, floating or with the negative terminal connected to earth. **Never use a DC power supply with the positive terminal connected to earth.**
 - The use of AC power supplies only if they are floating and not powering any other device.
6. Connect the communication cable coming from the serial port of your laptop PC to the port marked as **PC Console** of iBox (More details in section 0).
 7. Open LinkBoxBACnet, create a new project selecting a copy of the one named **DEMO Notifier ID3000** and give it the desired name, select the serial port used to connect to iBox and switch working mode to *on-line*. The iBox identification must appear in the *iBox communication console* window as showed below.
 8. Modify the configuration as desired, save it and download the configuration file to iBox as explained before.
 9. Open the *BACnet Communication Viewer* window and check that there is communication activity, some TX frames and some other rx frames. This means that the communication with the BACnet master device is OK. In case there is no communication activity between iBox and the BACnet device check that it is operative, check the baud rate, and also the communication cable used to connect both devices.

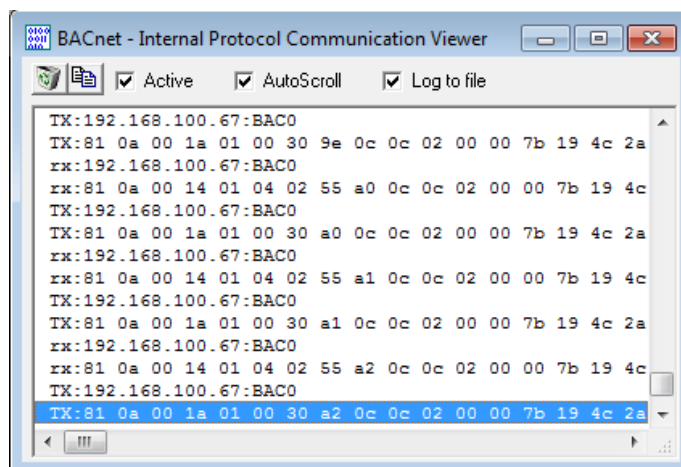


Figure 7.8 BACnet Protocol Communication Viewer

10. Open the *Notifier Communication Viewer* window and check that there is communication activity, some RX frames. This means that the communication with the Notifier panel is OK. In case of no communication activity

between iBox and Notifier, check that the RS232 port of Notifier panel is operative and well configured, and check also the communication cable used to connect both devices.

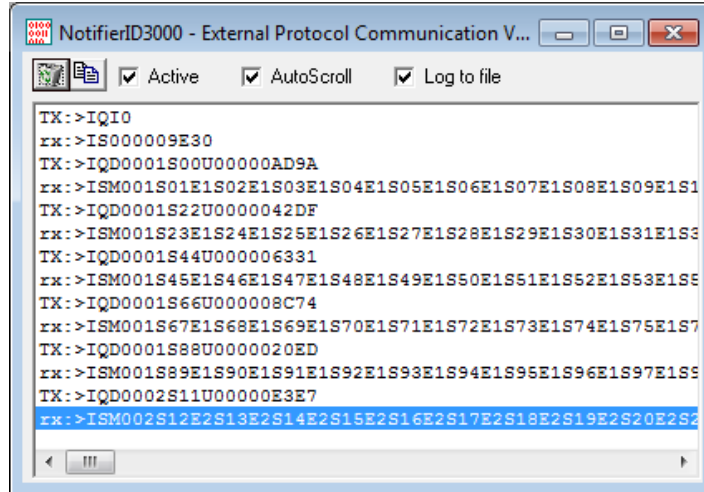


Figure 7.9 Notifier NID3000 Protocol Communication Viewer

7.3 System Reset

The System Reset process is produced:

- When a System_Reset event is detected in the fire panel.
- During start-up process.

Actions carried out during this process are as follows:

1. Assign the Present_Values to the following objects:

Element object type	Predefined value after scan
Panel General Objects	0
LoDdd_Status	Normal (32)
LoMmm_Status	Normal (32)
Zzzz_Status	Normal (48)
LoDdd_Level	255
LoMmm_Level	255

Table 7.2 Predefined values for each object type after System Reset

2. The Out_Of_Service property is set to TRUE in the following objects: *LoDdd_Status*, *LoMmm_Status*, *LoDdd_Level* and *LoMmm_Level*.
3. The Scan process is started

7.4 Scan

The Scan process is produced:

- After a System Reset.
- When a change in the enabling/disabling zone status or zone test status is produced.

Actions carried out during this process are as follows:

1. Get the present value of the following objects: *LoDdd_Status* and *LoMmm_Status*. It only applies for the current detectors and modules present in the fire panel.
2. The *Out_Of_Service* property is set to FALSE in the following objects: *LoDdd_Status*, *LoMmm_Status*, *LoDdd_Level* and *LoMmm_Level*. It only applies for the current detectors and modules present in the fire panel.

This process can take some time as it is asking for information from all elements in the fire panel. The amount of time needed will depend on the number of loops and elements in each loop and can vary from seconds to minutes.

This process also carries out the synchronization of the detectors and modules status.

7.5 Cyclical Polling

General status of the fire panel, zones and output modules is constantly and cyclically polled.

Polling is also carried out for each detector and module configured in the fire panel, gathering its status and level. For each polling cycle one of these elements is updated. The level update cadence depends on the number of elements configured in the panel. Therefore, the polling process can last from several minutes up to more than one hour.

7.6 Level values

In some cases, due to the internal parameters and functioning modes of some meters, the values represented in % can be over 100%. Please, check your sensor or meter manual/datasheet to ensure that values correspond to the expected results. The 255 value means that the data has not been updated since the last System Reset.

7.7 Morley DXc

iBox is compatible with Morley DXc fire panels.

After start-up, a request command is sent in order to detect the fire panel connected to the Gateway. If the Morley DXc is connected, version 12A is answered to this request command.

Once the type of fire panel is detected, the Gateway will determine the type of communication it has to carry out.

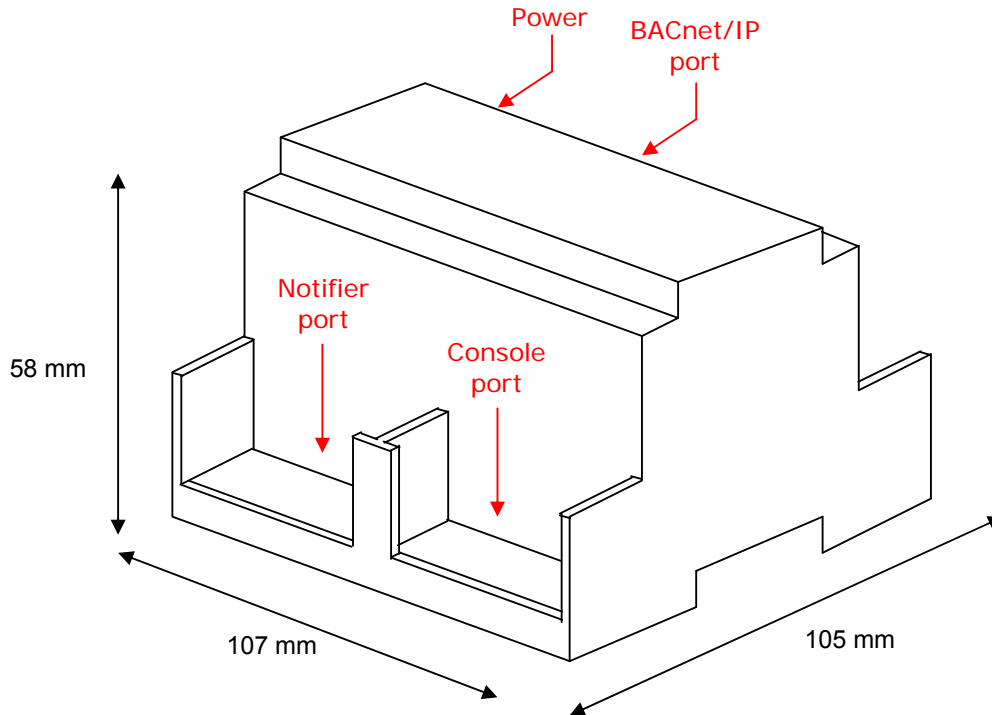
8 Mechanical & electrical characteristics



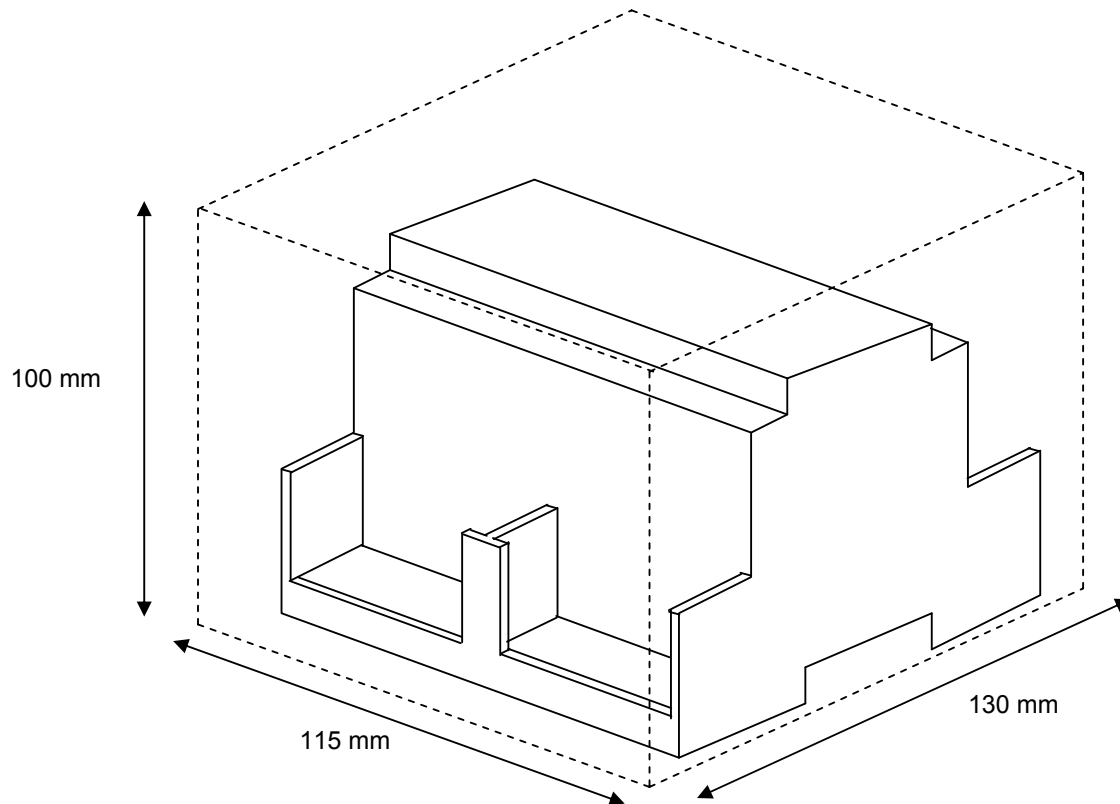
Enclosure	Plastic, type PC (UL 94 V-0). Dimensions: 107mm x 105mm x 58mm.
Color	Light Grey. RAL 7035.
Power	9 to 30Vdc +/-10% 1.4W. 24Vac +/-10% 1.4VA. Plug-in terminal bloc for power connection (2 poles).
Mounting	Wall. DIN rail EN60715 TH35.
BACnet/IP port	1 x Ethernet 10BT RJ45.
Notifier port	1 x RS232. DB9 male connector (DTE).
LED indicators	1 x Power. 2 x Notifier port activity (Tx, Rx). 2 x Ethernet port link and activity (LNK, ACT).
Console port	RS232. DB9 female connector (DCE).
Configuration	Via console port. ¹
Firmware	Allows upgrades via console port.
Operational temperature	0°C to +70°C
Operational humidity	5% to 95%, non-condensing
Protection	IP20 (IEC60529).
RoHS conformity	Compliant with RoHS directive (2002/95/CE).
Certifications	CE

¹ Standard cable DB9male-DB9female 1,8 meters long is supplied with the device for connection to a PC COM port for configuring and monitoring the device. The configuration software, compatible with Windows® operating systems, is also supplied.

9 Dimensions



Recommended available space for its installation into a cabinet (wall or DIN rail mounting), with space enough for external connections



10 Procedure to configure the RS232 port in the Notifier ID3000 panel

Two different connection types are allowed: through the ISO-RS232 optional PCB (recommended) or through the EIA232 standard port from the fire panel mother board.

10.1 ISO-RS232 optional PCB

To enable the RS232 port of the ISO-RS232 optional card, follow these steps in the menu of the panel (to unlock the keypad and have access the menu, turn the service key located on the front panel, beside the keypad, a quarter to the right):

- 6. Configuration
 - 6. Panel Configuration
 - 18. Conf. Port RS232 isolated
- 3. Integration Protocol**
- 2400 bps**
 - Version: 2: 011A**
 - Controls: enabled
 - Supervision com.: enabled/disabled
 - Supervision time: 0

In bold the compulsory selections.

Default Level 3 password: 27835

10.2 Main Board RS232

To enable the RS232 port of the main board, follow these steps in the menu of the panel (to unlock the keypad and have access the menu, turn the service key located on the front panel, beside the keypad, a quarter to the right):

- 6. Configuration
 - 6. Panel Configuration
 - 18. Conf. RS232 on main board
- 3. Integration protocol**
- 9600 bps**
 - Version: 1: 003A**
 - Controls: enabled
 - Supervision com.: enabled/disabled
 - Supervision time: 0

In bold the compulsory selections.

Default Level 3 password: 27835

11 Fire Panel System Events

Below you can find a table describing the different events received from the fire panel and some notes.

Code	Message Description	Additional Notes
128	Reserved	
129	SYSTEM RESET	Can have sector number and panel bit table. Can also be issued from Supervisor panel of Sectorized network even if panel is only partially reset, i.e. alarm condition still indicated at panel for sector(s) not yet reset.
130	TERMINATE TEST	Indicates termination of all Zone Tests.
131	SILENCE SOUNDERS	Can have sector number and panel bit table.
132	MUTE INTERNAL BUZZER	Can have sector number and panel bit table.
133	ALL VIEW sensors replaced on loop n	May have Loop number, 0 for 'all loops'. Indicates that VIEW processing parameters have been re-started so that all VIEW detectors start from scratch.
134	PASSCODE WARNING	Reported if user makes three successive wrong attempts to enter any password.
135	START TEST, ZONE n	(non-Network Zones mode only)
136	ENABLE ENTIRE ZONE n	(non-Network Zones mode only)
137	DISABLE ENTIRE ZONE n	(non-Network Zones mode only)
138	EVACUATE	Can have sector number and panel bit table.
139	SYSTEM CLOCK ADJUSTED	
140	EDITED CHANGES CONFIRMED	Always issued if any configuration done from LCD/Keypad which causes change to panel's site configuration data in FLASH memory.
141	CONTROL MATRIX ENTRY CREATED	ID2000 only
142	CONTROL MATRIX ENTRY DELETED	ID2000 only
143	SUSPECTED BREAK, LOOP n	Must have Loop number:
144	EDITED CHANGES CANCELLED	Issued if after doing some configuration changes from LCD/Keypad, operator presses X to cancel changes.
145	TEST activation Sounder or Relay Circuit n	Operator action from LCD/Keypad.
146	POWER RESTART	Panel powers up from complete power down.
147	COMMS FAIL	Panel on network fails to report.
148	LOSS OF ENTIRE LOOP n	Must have Loop number: CLIP devices only (TBD).
149	LOSS OF PART LOOP n	Must have Loop number: CLIP devices only (TBD).
150	END 'B' FAULT LOOP n	not implemented
151	NETWORK STATION NAME CHANGED	ID2000 only
152	NETWORK CONFIGURATION CHANGED	ID2000 only
153	GENERAL RESET	Master/Slave Network only
154	GENERAL SILENCE SOUNDERS	Master/Slave Network only
155	GENERAL MUTE INTERNAL SOUNDERS	Master/Slave Network only
156	NETWORK DISABLED	ID2000 only
157	RE-SOUND SOUNDERS	Can have sector number and panel bit table.
158	REMOTE INITIATED TEST ZONE n	Master/Slave Network only ; Panel Zones mode only.
159	SOUNDERS DISABLED	Can have zone number, or 0 for all zones.

160	Remote Fire Output Disabled	If Circuit number = 0, means all Remote TX devices, this is the normal operation.
161	MUTE INTERNAL BUZZER	(ID2000 only)
162	Control Outputs Disabled	Can have zone number, or 0 for all zones.
163	OVER-RIDE: SOUNDER / INVESTIGATION DELAY	Can have sector number and panel bit table.
164	Reserved	Not implemented.
165	Remote Fire Output Activated	Does not identify circuit(s). In German VdS mode, only logged when return signal from UE received.
166	Control Outputs Enabled	Can have zone number, or 0 for all zones.
167	Investigation Delay Extended	Can have sector number and panel bit table.
168	Remote Fire Output Enabled	If Circuit number = 0, means all Remote TX devices, this is the normal operation.
169	Sounders Enabled	Can have zone number, or 0 for all zones.
170	Sounders set to IMMEDIATE mode	Can have sector number and panel bit table.
171	Sounders set to DELAYED mode	Can have sector number and panel bit table.
172	System in DAY mode	Can have sector number and panel bit table.
173	System in NIGHT mode	Can have sector number and panel bit table.
174	Panel Main Cover removed	
175	Panel Main Cover replaced	
176	Remote Fire Output Test	Can have sector number and panel bit table. German VdS use only: refers to special UE test from FBF panel.
177	Remote Fire Output Deactivated	German VdS use only: refers to cessation of UE return signal – complementary to event 165.
178	Remote Fire Output Fault	not implemented
179	Fire Control Devices Disabled	German VdS use only: refers to all zones.
180	Fire Control Devices Enabled	German VdS use only: refers to all zones.
181	Sounder or Relay Circuit (n) Disabled.	
182	Fire Relay Disabled	
183	Fault Relay Disabled	
184	Sounder or Relay Circuit (n) Enabled	
185	Fire Relay Enabled	
186	Fault Relay Enabled	
187	'SST' devices Disabled (VdS only)	German VdS use only: refers to all zones.
188	'SST' devices Enabled (VdS only)	German VdS use only: refers to all zones.
189	Panel Expansion Cover removed (VdS only)	German VdS use only.
190	Panel Expansion Cover replaced (VdS only)	German VdS use only.
191	Zone n put into Test mode	Network Zones mode only.
192	Zone n Enabled	Network Zones mode only.
193	Zone n Disabled	Network Zones mode only.
194-196	reserved	Used for External System to Panel events only.
197	Sounders Enabled in Zone n	Network Zones mode only.
198	Sounders Disabled in Zone n	Network Zones mode only.

199	Zone n Fault	Network Zones mode only. Used to signal an unspecified fault in a zone in which an individual device has gone into Fault.
200	Zone n Fault	Panel Zones mode only. Used to signal an unspecified fault in a zone in which an individual device has gone into Fault.
201	Repeater Comms Fail	ID ² net systems only. For RS485 repeater attached to panel on ID ² net, does not identify which repeater has failed.
202	TEST de-activation Sounder or Relay Circuit n	
203	ID ² net duplicate node n	The Panel field (bytes 4-5) contains the Node address of the suspected duplicate.
204	Power Fault, ID ² net Booster n	The Panel field (bytes 4-5) actually contains the Node address of the Booster which has reported the fault.
205	Access_Level 1	ID50 only
206	Access_Level 2	ID50 only
207	Access_Level 3	ID50 only
208	Access_Level 4	ID50 only
209	Control Outputs Enabled in Zone n	Network Zones mode only.
210	Control Outputs Disabled in Zone n	Network Zones mode only.
211–214	reserved	
215	All Sounders Tested on Loop.	Test by panel operator. Special loop loading test.
216	OPERATION FAULT - Virtual Output Point	
217	SIGNALLED FAULT - Virtual Output Point	
218	Virtual Output Point ENABLED	
219	Virtual Output Point DISABLED	
220	TEST Activation Virtual Output Point	
221	TEST De-activation Virtual Output Point	
222	ENABLE Virtual Input Point	
223	DISABLE Virtual Input Point	
224	* FIRE * Virtual Input Point	
225	Return from FIRE, Virtual Input Point	
226	FAULT, Virtual Input Point	
227	Return from FAULT, Virtual Input Point	
228	Entire Zone Enablement	Panel Zones only: used in conjunction with other messages. Entire zone enablement.
229	Entire Zone Disablement	Panel Zones only: used in conjunction with other messages. Entire zone disablement.
230	Entire Zone Enablement	Network Zones only: used in conjunction with other messages. Entire zone enablement.
231	Entire Zone Disablement	Network Zones only: used in conjunction with other messages. Entire zone disablement.
232	Aux Virtual Input Activated	
233	Aux Virtual Input Deactivated	
234	Pre-alarm Virtual Input Activated	

235	Backup FIRE Line Activated	This is a fallback indication which can be generated by an ELIB which has lost contact with the main CPU or by a Network card which has lost contact with its host. It is used to ensure an alarm signal is propagated across a partially failed system, but does not offer any information about the origin of the alarm, and does not lead to any activation of Control Matrix rules.
236	Sector assignment error, Panel n	Indicates configuration error, panels disagree as to which ones belong to which sectors.
237-245	reserved	
246	Panel has been asked to suspend unsolicited messages	This message will only be sent after unsolicited messages have been re-enabled. Messages between this one and event 247 will be those held back during the suspension period.
247	Panel has been asked to resume unsolicited messages	
248-256	reserved	
257	LIB card: Loop CPU Fault	Contains Loop number – indicates that LIB is present but failed to communicate correctly with main CPU.
258-260	reserved	
261	LIB card: Loop CPU Power Restart	Contains Loop number
262-264	reserved	
265	LIB card: Loop Short Circuit	Contains Loop number: indicates that the LIB driver itself detected a short circuit, rather than it being reported by a short circuit isolator on the loop.
266-268	reserved	
269	LIB card: Device zero Present	Contains Loop number: can be either sensor or module.
270-272	reserved	
273	LIB card missing	Contains Loop number. Note that this message will normally occur in pairs because there are two consecutive loops on each LIB card.
274-276	reserved	
277	LIB card: Loop end driver fault	Contains Loop number: indicates that unexpected voltage seen when trying to isolate loop.
278-280	reserved	
281	LIB card: Loop Signal Degraded	Contains Loop number: indicates more than acceptable accumulation of bad polls.
282-284	reserved	
285	LIB card: ROM Checksum error	Contains Loop number
286-287	reserved	
288	RS232 link fault.	Indicates that Panel has detected a failure of the third part RS232 connection.
289	Mains/PSU Failure	
290	PSU/Charger Fault	
291	Battery Low Voltage	
292	Battery Failure	
293	reserved	
294	reserved	
295	reserved	
296	Main CPU Watchdog Operated	
297	CPU EPROM Checksum Error	

298	CPU E ² PROM Memory Write Error	For the new CPD compliant hardware, the E ² PROM is actually a second FLASH memory.
299	CPU FLASH Memory Checksum Error	This refers to the 'protected' FLASH memory which holds the site configuration.
300	Printer Fault	Refers to optional 40-column printer.
301	CPU FLASH Memory Write Error	This refers to the 'protected' FLASH memory which holds the site configuration.
302	Software failure	General task monitoring to comply with EN54. This message may contain a loop number, if so it refers to unexpected interruption to CLIP round-robin scan (which will have been fixed).
303	CPU/Display hardware fault	Specific to ID3000 hardware
304	Baseboard/Expansion hardware fault	Specific to ID3000 hardware
305	CPU Watchdog timer fault	Specific to ID3000 hardware
306	Sounder Circuit 2 Short-circuit Fault	
307	Sounder Circuit 1 Short-circuit Fault	
308	Sounder Circuit 2 Open-circuit Fault	
309	Sounder Circuit 1 Open-circuit Fault	
310	Sounder Circuit 2 Relay Fault	Refers to apparent failure of activation or de-activation.
311	Sounder Circuit 1 Relay Fault	Refers to apparent failure of activation or de-activation.
312	Earth Fault	
313	Sounder Circuit 3 Short-circuit Fault	
314	Sounder Circuit 4 Short-circuit Fault	
315	Sounder Circuit 3 Open-circuit Fault	
316	Sounder Circuit 4 Open-circuit Fault	
317	Sounder Circuit 3 Relay Fault	Refers to apparent failure of activation or de-activation.
318	Sounder Circuit 4 Relay Fault	Refers to apparent failure of activation or de-activation.
319	Panel Key Stuck	
320	CPU Watchdog not enabled	Specific to ID3000 hardware
321	Clock set to after AD2099	Implemented because of Y2K compliance requirements. A panel will continue to function correctly but will show fault.
322	CPU Clock Monitor Failure	Specific to ID3000 hardware: reported after panel re-boots.
323	CPU Illegal Instruction	
324	Aux. Output 1 Fault	
325	Aux. Output 2 Fault	
326	PSU Fault: Crowbar Active	
327	Configuration needs Expansion Card	ID2000 only – setting number of zones above 16 but not fitting mandatory zone LED card.
328	Configuration needs RS485 Card	
329	Configuration needs RS232 Card	

330	RS232/RS485/PRINTER Card displaced	At present this can be due to two causes: <input type="checkbox"/> Card being inserted or removed whilst panel is powered up. <input type="checkbox"/> RS232 card being used in 'Half Duplex' mode but placed in 'wrong' slot (should be in left-hand slot in old pre-CPD baseboard, but in right-hand slot in new CPD baseboard). The second issue is under review.
331	Powered off due to low battery	EN54 requirement, panel switches itself off to avoid battery damage: obviously this fault cannot be reported until the panel next powers on.
332	External PSU Fault	
333	External PSU Dual TX Path fault	
334	External PSU low system voltage	
335	ELIB card missing or fault	Contains Loop number: Usually means a standard LIB card has been installed when an ELIB is expected.
336-338	reserved	
339	ELIB FLASH memory write fail	Contains Loop number
340-342	reserved	
343	ELIB data download failed	Contains Loop number
344-346	reserved	
347	Zone assignments incorrect (Network Zones mode only)	VdS German use only (requirement that inputs and outputs in separate zones).
348	Reference no. assignments incorrect (Network Zones mode only)	
349	Main CPU Watchdog Operated (COP)	Specific to ID3000 hardware
350	Network Zone duplication	Network Zones mode only: same zone number used on two different panels.
351	Incompatible LIB card installed (ELIB on ID2000 panel)	Contains Loop number: ID2000 only – ELIBS are not supported on ID2000
352-354	reserved	
355	ID ² net: Network card missing or inoperative	
356	ID ² net: Network startup fault –no acknowledgement in DPR.	
357	Reserved	
358	ID ² net: Network startup fault –no reply to JOIN command	
359	Reserved	
360	ID ² net: Network startup fault – card reported JOIN command failure.	
361	ID ² net: Network runtime fault (various causes).	
362	ID ² net: Channel 1 Link Fault	
363	ID ² net: Channel 2 Link Fault	
364	ID ² net: Flash Checksum Error	
365	ID ² net: Network Overload Timeout.	This will be reported if a panel 'gave up' on attempt to transmit a message to ID ² net – message will have been lost.
366	Incompatible Loop Device and LIB	Contains Loop number: Means that a LIB card with too low software version is installed.
367	Comms with CMSI Panel Failed	AFNOR only – not implemented
368	Comms with CMSI Panel Degraded	AFNOR only – not implemented
369	Power-Supply Secondary Backup Fault	

370	Incompatible Panel/Network Zones Combination	This will be reported if one panel in a network is configured for Panel Zones mode, and another on the same network for Network Zones mode.
371	ID ² net: Primary CPU Fault	Only supported when ID ² net software 993-729 is installed: for new 'backup- CPU' ID ² net card. This software is currently not issued.
372	ID ² net: Secondary CPU Fault	Only supported when ID ² net software 993-729 is installed: for new 'backup- CPU' ID ² net card. This software is currently not issued.
373	ID ² net: Partial Open/Short Circuit Fault	Only supported when ID ² net software 993-729 is installed: for new 'backup- CPU' ID ² net card. This software is currently not issued.
374	ID ² net: Phase Reversal Fault	Only supported when ID ² net software 993-729 is installed: for new 'backup- CPU' ID ² net card. This software is currently not issued.
375	ID ² net: Channel Inversion Fault	Only supported when ID ² net software 993-729 is installed: for new 'backup- CPU' ID ² net card. This software is currently not issued.
376	Incompatible baud rate combination	Specific to ID3000 hardware: the combination of 2400 baud on one plug-in channel, and 9600 baud on other plug-in channel, is not supported.
377	Sounder Circuits: CPU Fault	Specific to ID3000 hardware – may be generated by new CPD compliant baseboard.
378	Extinguishing System External Fault	VdS German use only
379	Extinguishing System TX Path Fault	VdS German use only
380	Too many CLIP addresses	Mixed CLIP and OPAL loops only
381	OPAL auto-config. incomplete	Means that operator deliberately aborted OPAL loop devices' auto-configuration.
382	Sensor at Address Out-of-Range	Contains Loop number: means that OPAL sensor with address greater than 99, found on panel which does not support this (i.e. ID3000).
383-385	reserved	
386	Module at Address Out-of-Range	Contains Loop number: means that OPAL module with address greater than 99, found on panel which does not support this (i.e. ID3000).
387-399	reserved	
400	ID ² net: Message Delivery Failure	
401	Walk Test Sounders Start	
402	Walk Test No Sounders Start	
403	Walk Test Auto Reset	
404	Walk Test End	
405	Mains Brown-out	
406	PSU Module Fault,	
407	Auxiliary Supply Fault	
408	Memory Lock Open	
409	Disable Local Inputs	
410	Enable Local Inputs	
411	PC EVENT 1	
412	PC EVENT 2	
413	PC EVENT 3,	
414	PC EVENT 4	
415	PC EVENT 5	
416	PC EVENT 6	
417	PC EVENT 7	
418	PC EVENT 8	

419	Battery Wiring Fault	
420	Performance Card Read Fault	
421	Auxiliary Supply Disconnected	
422	Zone LEDs Missing Fault	
423	Network Panel Missing	
424	Maximum Loops Exceeded	
425	Zone LEDs Added Fault	
426	Remote Link No Reply	
427	Panel Status Mismatch	
428	Config Status Mismatch	
429	General Non-Device Fault at Remote Panel #	Only sent from Pearl Panels

Honeywell Life Safety Iberia

C/ Pau Vila, 15-19 · 08911 Badalona.
Barcelona, Spain
T. (+34) 93 497 39 60 · F. (+34) 93 465 86 35

www.honeywelllifesafety.es / www.notifier.es
infohsiberia@honeywell.com