# FieldServer Driver
## FS8705-25
## Driver for
## Nohmi Multicrest Fire Alarm Panel

### Description

The Nohmi Multicrest driver is a passive client driver intended for connection to the serial port of a Nohmi FACP. A passive client driver waits for messages to be sent to it (by the panel). The driver cannot send messages to the panel and hence it cannot request the state of any point in the panel.

The driver can process alarm and trouble events, system troubles and some other messages from the panel.

The driver can only be used as a client. Minimal server functionality is provided only to support our ongoing quality assurance program by facilitating automated testing of the driver. Server operation is not documented or supported.

### Synchronization

A consequence of the fact that this is a passive client driver, is that the FieldServer must be synchronized with the panel by restarting the FieldServer and then resetting the panel to reset and resend the active data.

### Driver Functionality

When an event message is received by the FieldServer the FieldServer will inspect the message to learn the Node Number and for device events it will also learn the Loop, Device, circuit.

The driver will determine if the event reports an on/off state and will set/clear an element of its data arrays (internal database) to correspond to the state of the point being reported. These Data Array elements are mapped onto the server protocol such as BACnet IP.

### Event Dates

The panel supports US and European format. The driver will allow the configuration engineer to choose between them.
“US”, = MM/DD/YY
“EURO” = DD/MM/YY

### Remote Panels

Event messages do not identify remote panels with the panel name. This is different from earlier systems. The Node ID number contained in the message will be used to differentiate data from one panel or another.

## Available Information for Mapping

**System Troubles**
For Panel Troubles, there is one Data Array of troubles configurable for each FACP on the network. The list of troubles for each panel is fixed, but a capability has been added within the driver to add to the standard list of troubles if needed.

**Device Activation Status**
For Device Activation Events data points that are mapped in the configuration based on specific activation status type, node and loop and circuit: When the event message is received, the driver uses the node, loop number, circuit and the activation status (Active/ Inactive Status part of the message), looks through the configuration and finds the Data Array to use for storage. It then uses the device number as the offset into the Data Array and sets or clears the data at that offset depending on whether it is an active/inactive status event. A system reset will also clear device status where relevant.

**Device Trouble Status**
For Device Trouble Events data points that are mapped in the configuration based on specific activation status type, node and loop and circuit:. When the event message is received, the driver uses the node, loop number and the Trouble status (Active/ Inactive Status part of the message), looks through the configuration and finds the Data Array to use for storage. It then uses the device number as the offset into the Data Array and sets or clears the data at that offset depending on whether it is an active/inactive status event.

**Device Summary Status**
For all Device Events the driver can provide a summary to report if a device has any active status. There are 2 summary systems – one uses different bits for each possible event so activations and troubles can be stored in the same data element. This is known as the Full Summary. The other (partial summary) requires different array items for activations and troubles to allow for unique activation and trouble summaries.

**Device MultiState Status**
The MultiState method of reporting is also a summary but instead of using a different bit in each word used to represent a device, the Multistate method uses a number. For activations the number reports 1) normal or 2) the highest priority activation. For Troubles the number reports 1) normal 2) the trouble type (an enumeration) or 3) that there is more than one trouble active for the device.

**Device Classification**
Device Classification and Device Type are interchangeable words in this document. When device messages are received, the driver looks in the classification part of the message. It then uses a lookup table, finds a matching classification in the table, extracts the classification number and stores the number in the Data Array configured to store classification numbers. Note that due to the capture method, the driver can only report classifications of devices that have changed state. The driver allows the addition of new devices types, deletion and edit of existing Device Types.

**Database Reset through System Reset**
When a system reset is received, the driver clears all previously set data in any data array configured to store data from the Nohmi Multicrest panel. If there are points in an active state, when the system reset is performed, the panel will send new messages reporting the active states and thus the FieldServer data and the panel data will be synchronized.

## Unsupported Features

**Simulation Notification**
Some messages produced by the panel indicate the event was generated by simulation. The driver will ignore the fact that these are simulated events and will set / clear data as if they were non-simulated events.

**Zone reporting**
Since the Protocol specification does not allow for the reporting of specific zone status directly. Thus this driver does not report zone status.

**Custom Messages**
When an event message is process this driver ignores the custom message field. If a system uses the Custom Message field to allocate zones it should be noted that it will have no effect on this driver

**Switch Operations**
Although the driver uses System Reset for management of supported features, the actual reporting of operations made at the panel (Acknowledge, Drill, Silence, System Reset etc) is not possible.

**Menu Operations**
The reporting of Menu operations made is not supported.

**Other**
**Any features not specifically stated as supported in this document should be regarded as not supported. Please feel free to contact us for further information**.

## Max Nodes Supported

| FieldServer Mode | Nodes | Comments |
|---|---|---|
| Passive Client | 1 per serial port. | *Each port on the FieldServer can only be connected to 1 panel. Multiple networked panels can be supported through this connection to one panel.* |
| Active Server | 0 | *Not supported or documented.* |

## Formal Driver Type

Serial
Passive Client

## Compatibility Matrix

| FieldServer Model | Compatible with this driver |
|---|---|
| FS-x2010 | No |
| FS-x2011 | No |
| FS-x40 | No |
| FS-X30 | Yes |
| FS-X30 – Hot Standby | Yes |
| QuickServer | Yes |

## Connection Information

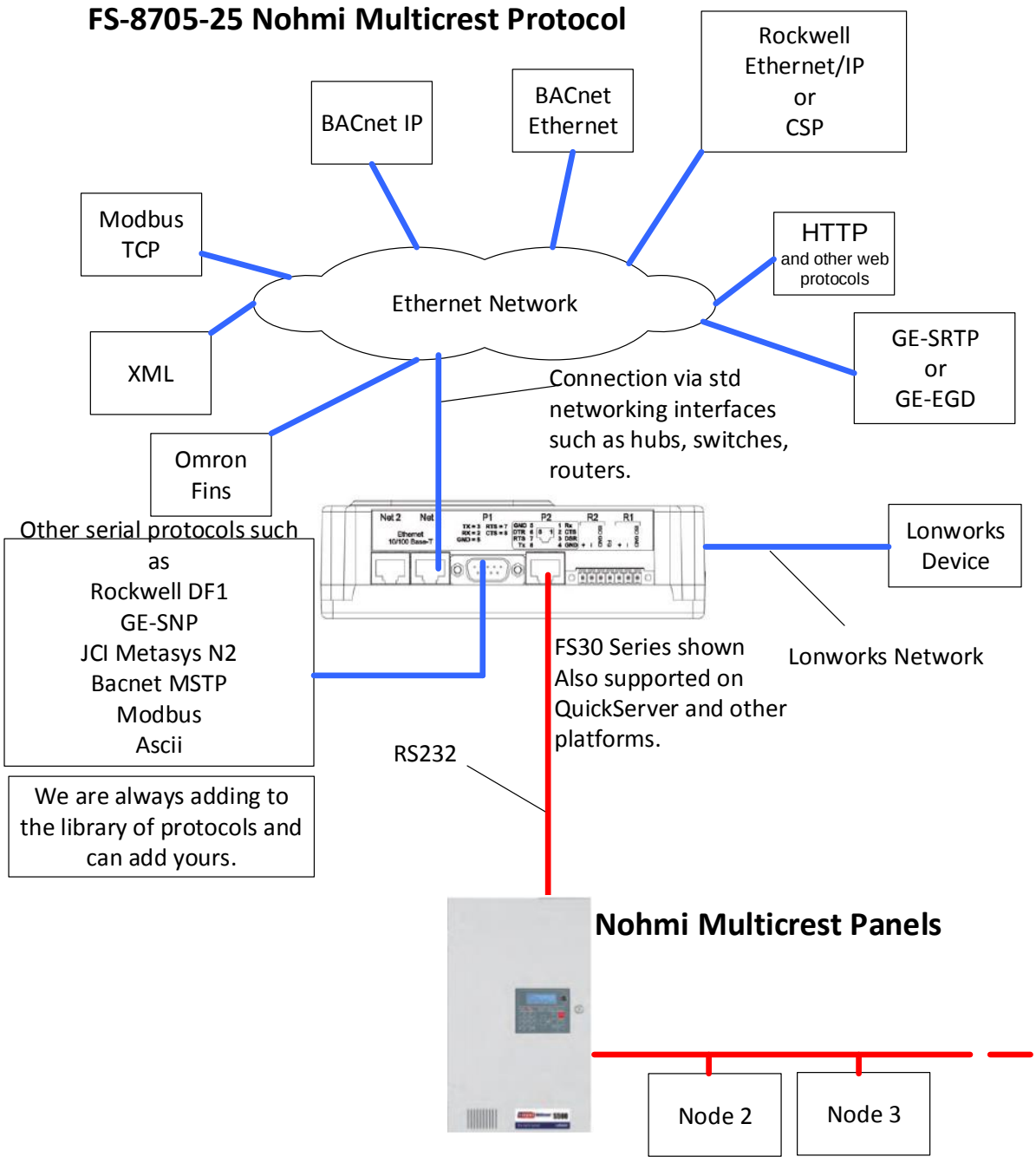
| | |
|---|---|
| **Connection type:** | EIA232 |
| **Baud Rates:** | Driver Supports : 110; 300; 600; 1200; 2400; 4800; 9600; 19200; 28800; 38400; 57600 Baud<br>*Nohmi Multicrest* supports**: 9600** |
| **Data Bits:** | Driver Supports : 7,8<br>*Nohmi Multicrest* supports: **7** |
| **Stop Bits:** | Driver Supports : 1,2<br>*Nohmi Multicrest* supports: **1** |
| **Parity:** | Driver Supports : Odd, Even, None<br>*Nohmi Multicrest* supports: **Even** |
| **Hardware interface:** | N/A |
| **Multidrop Capability** | No |

## Devices tested

| Device | Tested (FACTORY, SITE) |
|---|---|
| PCA-N3060-PSU | Factory |
| | |

## Connection configurations

Multiple workstation protocols and connections supported. See list of FieldServer Drivers.



## Support

This driver was developed by Chipkin Automation Systems (CAS), a FieldServer Approved Integrator®. CAS are proud to provide support for the driver. For support please call CAS at (866) 383-1657.

## Revision History

| Date | Resp | Format | Driver Ver. | Doc. Rev. | Comment |
|---|---|---|---|---|---|
| 2014Sep11 | PMC | | 0.00 | 0 | Issued for release. |
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