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FS-8705-47 – Edwards IO-Series FACP
Edwards VS-Series FACP
Edwards FX-Series FACP

DATASHEET – Rev 3

DESCRIPTION

This driver is suitable for all panels in the IO, VS and FX Series panels.

This driver is capable of being linked with other FieldServer drivers to form regular FieldServer firmware that can be installed on QuickServer and other FieldServer gateways. When messages from the FACP are received, they are parsed and the internal data caches / arrays of the FieldServer are updated with status information. Other drivers can access this data and serve using other protocols such as BACnet and Modbus.

QS-1XX0

QS-2XX0


QS-3XX0

The driver is a passive client driver in that it does not poll for data but rather sits passively for the FACP to announce events.

CONNECTION FACTS

FIELDSERVER MODE	NODES	COMMENTS
Client	Many	One FACP per RS232 serial port.
Server	0	Not supported or documented.

FORMAL DRIVER TYPE

Serial RS232
Passive Client

FS-8705-47 – Edwards IO – FX – VS Panels

COMPATIBILITY

FIELDSERVER MODEL	COMPATIBLE
FS-2010/2011/4010 (Legacy)	Yes
FS-35 Series	Yes
FS-QS Series	Yes

CONNECTION INFORMATION

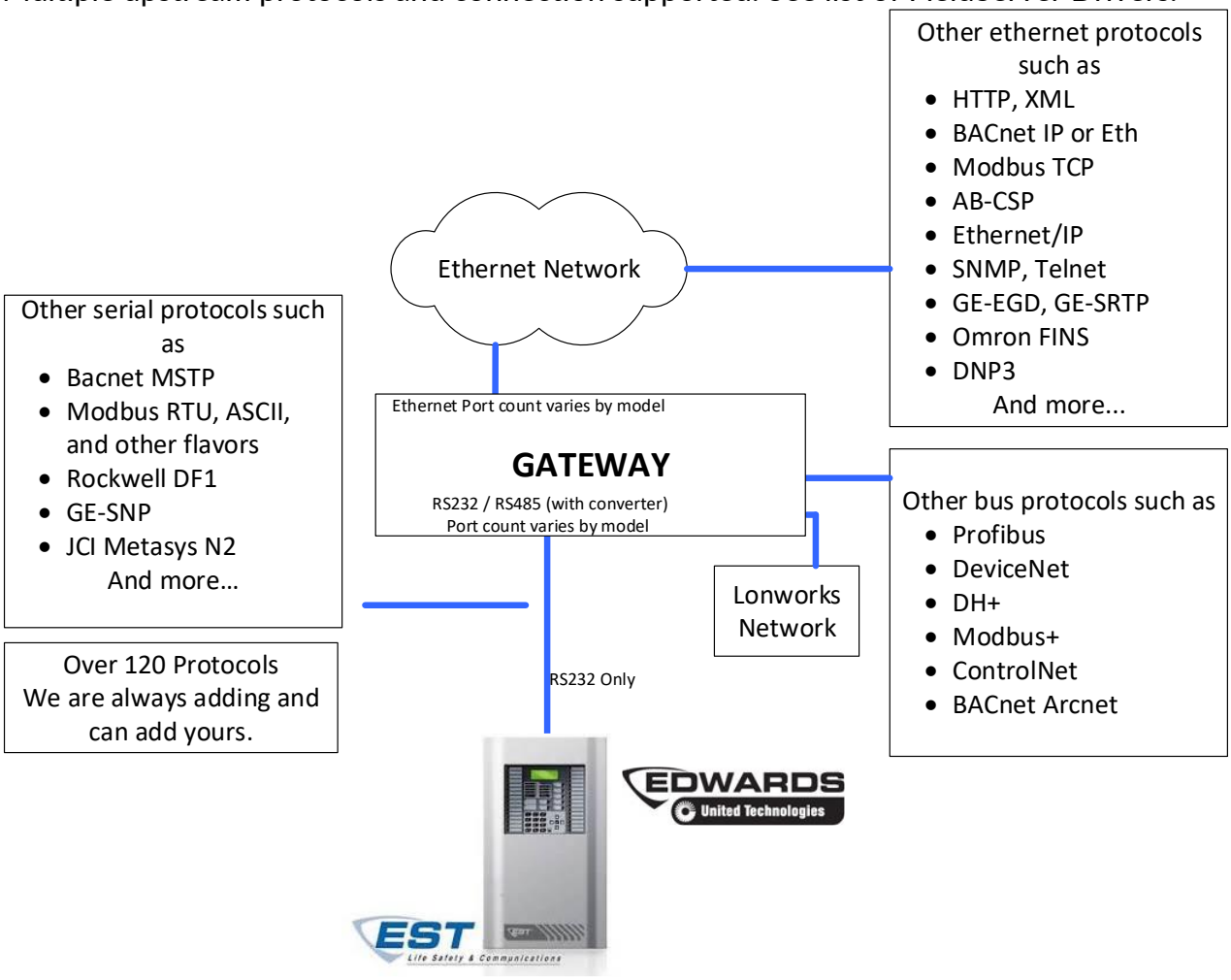
Connection type:	EIA232 Driver Supports : **9600**; 19200; 28800; 38400; 57600 Baud .
Baud Rates:	FACP supports 9600
Data Bits:	Driver Supports : 7,**8**
Stop Bits:	Driver Supports : **1**,2
Parity:	Driver Supports : Odd, Even, **None**
Hardware interface:	N/A
Multidrop Capability	No

DEVICES TESTED

DEVICE	TESTED (FACTORY, SITE)
Edwards IO Panel	
Kiddie VS Panel	
Kidde FX Panel	

CONNECTION CONFIGURATIONS

Multiple upstream protocols and connection supported. See list of FieldServer Drivers.



Edwards IO-Series

FS-8705-47 – Edwards IO – FX – VS Panels

Other ethernet protocols such as
- HTTP, XML
- BACnet IP or Eth
- Modbus TCP
- AB-CSP
- Ethernet/IP
- SNMP, Telnet
- GE-EGD, GE-SRTP
- Omron FINS
- DNP3

And more...

Ethernet Network

Other serial protocols such as
- Bacnet MSTP
- Modbus RTU, ASCII, and other flavors
- Rockwell DF1
- GE-SNP
- JCI Metasys N2

And more…

Ethernet Port count varies by model

GATEWAY

RS232 / RS485 (with converter)
Port count varies by model

Other bus protocols such as
- Profibus
- DeviceNet
- DH+
- Modbus+
- ControlNet
- BACnet Arcnet

Lonworks Network

Over 120 Protocols
We are always adding and can add yours.

RS232 Only

Kidde FX-Series

Edwards Signaling

FS-8705-47 – Edwards IO – FX – VS Panels

Other ethernet protocols such as
- HTTP, XML
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RS232 Only

Kidde VS-Series

UNSUPPORTED DEVICES OR PROTOCOL OPTIONS

The driver is not capable of accepting (will cause errors) any FACP Report.
The driver is only capable of accepting event notifications.

The DTR Handshaking system is not supported. If enabled on the panel the pin must be jumpered to defeat the handshaking.

HOW EVENT DATA IS STORED

MultiState: If you want an integer which reports current status

STATEINTEGER	MEANING
0	Not permitted because of BACnet Multistate limitation
1	Normal
2	Alarm
3	Trouble
4	Monitor
5	Supervisory

OffNormal : A point that is on all the time that the panel point is not in its normal state.

Alarm: You can monitor if a point is in Alarm/Normal
Supervisory: You can monitor if a point is in a SypervisoryState/Normal
Trouble: You can monitor if a point is in a TroubleState/Normal

Device Data

Driver can be configured to monitor a range of devices/modules for a particular loop. A server object can therefore be attached to each device on each loop that is part of the FACP.

Module Data

Driver can be configured to monitor a range of modules for a particular loop. A server object can therefore be attached to each module on each loop that is part of the FACP.

Device vs Module

From the driver's point of view a module and a device are almost identical. It treats each one as a point reporting event status. The only difference between them is the addresses (Effectively Module 1 = Device 201).

Zone Data

Driver can be configured to monitor a range of zones. A server object can therefore be attached to each zone that is monitored.

Annunciator Data

Driver can be configured to monitor a range of Annunciator Addresses. A server object can therefore be attached to each Annunciator Address that is monitored.

System or Internal Events

Driver can be configured to monitor a range of Internal Events. A server object can therefore be attached to each Internal event that is monitored.

IO-Series Panel Capabilities

Panel type	Number of loop cards installed	Total number of addresses supported
iO64	1 Single Loop	64 (any combination of detectors or modules)
iO1000	1 Single Loop	250 (125 detectors and 125 modules)
iO1000	2 Single Loop	250 (125 detectors and 125 modules) 250 (125 detectors and 125 modules)
iO1000	1 Dual Loop	250 (125 detectors and 125 modules) 250 (125 detectors and 125 modules)
iO1000	1 Single Loop 1 Dual Loop	250 (125 detectors and 125 modules) 250 (125 detectors and 125 modules) 250 (125 detectors and 125 modules)
iO1000	2 Dual Loop	250 (125 detectors and 125 modules) 250 (125 detectors and 125 modules) 250 (125 detectors and 125 modules) 250 (125 detectors and 125 modules)

FX-Series Panel Capabilities

Panel type	Number of loop cards installed	Total number of addresses supported
FX-64	1 single	64 (any combination of detectors or modules)
FX-1000	1 single	250 (125 detectors and 125 modules)
FX-1000	2 single	250 (125 detectors and 125 modules) 250 (125 detectors and 125 modules)
FX-1000	1 double	250 (125 detectors and 125 modules) 250 (125 detectors and 125 modules)
FX-1000	1 single 1 double	250 (125 detectors and 125 modules) 250 (125 detectors and 125 modules) 250 (125 detectors and 125 modules)
FX-1000	2 double	250 (125 detectors and 125 modules) 250 (125 detectors and 125 modules) 250 (125 detectors and 125 modules) 250 (125 detectors and 125 modules)

VS-Series Panel Capabilities

Panel type	Number of loop cards installed	Total number of addresses supported
VS -64	1 single	64 (any combination of detectors or modules)
VS -1000	1 single	250 (125 detectors and 125 modules)
VS -1000	2 single	250 (125 detectors and 125 modules) 250 (125 detectors and 125 modules)
VS -1000	1 double	250 (125 detectors and 125 modules) 250 (125 detectors and 125 modules)
VS 1000	1 single 1 double	250 (125 detectors and 125 modules) 250 (125 detectors and 125 modules) 250 (125 detectors and 125 modules)
VS -1000	2 double	250 (125 detectors and 125 modules) 250 (125 detectors and 125 modules) 250 (125 detectors and 125 modules) 250 (125 detectors and 125 modules)

CONFIGURATION EXAMPLES

Example 1 -

Monitor only Active Event Type (ie alarms) for device / module x on loop y For each point ignore all other event types.

Eg. A server object for each

Loop Y – Device / Module X– Active

Example 2 -

Monitor all Event Type for for device / module x on loop y For each point ignore all other event types. There will be 9 server object per device – one for each event types.

Eg. A server object for each

Loop Y – Device / Module X– Active
Loop Y – Device / Module X- Supervisory
Loop Y – Device / Module X- Monitor
Loop Y – Device / Module X- Pre Alarm
Loop Y – Device / Module X- Trouble
Loop Y – Device / Module X- Alarm Verify
Loop Y – Device / Module X- Maintenance
Loop Y – Device / Module X– Disable
Loop Y – Device / Module X– Test
(9 server objects per point)

Example 3 -
Monitor 3 key states for device / module x on loop y. For each point ignore all other event types.
There will be 4 server object per device – one alarm/trbl/supervisory event types.

Eg. A server object for each

Loop Y – Device / Module X– Active
Loop Y – Device / Module X- Supervisory
Loop Y – Device / Module X- Trouble

Example 4 -
Use a summary event for device / module x on loop y. For each point ignore all other event types.
There will be 1 server object per device – one summary state

Eg. A server object for each

Loop Y – Device / Module X– Not-Normal

Example 5 – Maximum Configuration
Monitor all Event Types for device / module x on loop y. For each point ignore all other event types.
There will be 10 server object per device – 9 basic and 1 summary
Monitor all zones, annunciator addresses and all system / internal states

Any subset is possible.

Eg. A server object for each point

Loop Y – Device / Module X– Active
Loop Y – Device / Module X- Supervisory
Loop Y – Device / Module X- Monitor
Loop Y – Device / Module X- Pre Alarm
Loop Y – Device / Module X- Trouble
Loop Y – Device / Module X- Alarm Verify
Loop Y – Device / Module X- Maintenance
Loop Y – Device / Module X– Disable
Loop Y – Device / Module X– Test
Loop Y – Device / Module X– Not-Normal
(10 server objects per point)

A server object for each Annunciator Address

Annun x – Active
Annun x – Supervisory
Annun x – Monitor
Annun x – Pre Alarm

Annun x – Trouble
Annun x – Alarm Verify
Annun x – Maintenance
Annun x – Disable
Annun x – Test
Annun x – Not-Normal
(10 server objects per point)

Ditto for each zone

Ditto for each internal event.

FACP – GATEWAY SYNCHRONIZATION

Event notices are sent once by the Panel. If the gateway restarts it will lose all data about any currently active states. Synchronization is required.

Synch will be done by human action of checking there are no active events on the panel and then re-starting the panel. This is required because after a system reset the panel does not re-send notices about events that were active before and which remain active after the reset.

If the iO panel is reset and the alarm event does not clear, the event will remain active on the display and will not re-activate and will not resend its active state through the serial port.

FACP PRINTER PORT SUPERVISION

The DTR Handshaking system is not supported. If enabled on the panel the pin must be jumpered to defeat the handshaking. This driver never sends an XOFF byte. It is therefore recommended that the supervision be disabled.

If the FACP printer port has supervision enabled then the when it sends the ENQ the driver will respond with XON.

The driver has no way of knowing if the FACP connection has been lost. A point should be programmed to toggle on a time interval. The remote monitoring system should monitor this point for change.

CUSTOMER SUPPORT

Edwards IO – FX – VS Panels Driver for FieldServer was developed by Chipkin, and we are proud to provide support for our products. For technical support, sales and customer service, please call us at 1 (866) 383-1657.

Thanks for choosing Chipkin's products and integration services to meet your building and industrial automation requirements!

Chipkin™ is a building and industrial automation protocol expert. We develop, configure, install and support gateways (protocol converters), data loggers and remote monitor and controlling applications. Founded in October 2000, Chipkin provides expert solutions for converting BACnet®, Modbus®, and LonWorks®—to name just a few—and enabling interfaces for HVAC, fire, siren, intercom, lighting, transportation and fuel systems. The high-quality products we offer (including those from other vendors) interface with Simplex™, Notifier™, McQuay™, GE™ and many others—so you can rest assured that we will select the most appropriate solution for your application.

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Sales and Customer Service

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REVISION HISTORY

DATE	RESP.	DRIVER VERSION	DOCUMENT REVISION	COMMENTS
6 Mar 2018	PMC	0.00	0	Created
7 Mar 2018	PMC		1	Added other panels – VS and FX Added notes about loop/device/module counts New Block Diagrams Updated notes on synch
3 Jan 2019	PMC		2	Updated Synch Notes
17 Jun 2021	YC		3	Updated to latest template