

FIRELEC Migration Solution

PROVOX™ > DeltaV™

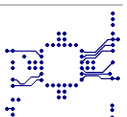
***PIA (PROVOX™ Interface
Adapters)***

FMS-PVXCL-DV-2

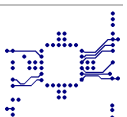
Discrete Outputs

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1. INTRODUCTION



The purpose of this document is to guide the user of a 20 series I/Os PROVOX™ system within the safe, efficient and easy way to migrate toward a DeltaV™ system.

FIRELEC has developed migration solution "**FMS-PVXCL-DV-2**" allowing to protect the existing wiring investment as the user converts from an existing PROVOX™ system (20-series I/Os) to the DeltaV™ system.

The **FMS-PVXCL-DV-2** solution is a set of migration adapters installed in place of the existing 20 series I/O cards into the CP6701 I/O files, allowing to connect easily existing PROVOX™ 20series I/O cables, to the DeltaV™ I/O cards.

The PROVOX™ 20series cables and the PROVOX™ I/O panels are kept in place. The SUBD connectors of this cables are then, through the PIA, connected to the DeltaV™ I/O cards using dedicated shielded cables with SUBD connectors at one end and numbered wires or suitable connectors (matching with the type of I/O block of the DeltaV™ card) at the other end.

1.1. KEY ADVANTAGES OF THE FMS-PVXCL-DV-2 SOLUTION

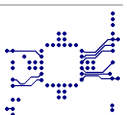
FMS-PVXCL-DV-2 solution protect your wiring investment as you convert from the PROVOX™ 20series system to the DeltaV™ system of Emerson Process Management with following advantages :

FMS-PVXCL-DV-2 is a pre-engineered marshalling solution ready to work without any technical rework or limitation regarding the existing capabilities of the PROVOX™ system to be migrated.

As the instrument wiring is not disturbed, the instrument checkout during startup is reduced to the minimum

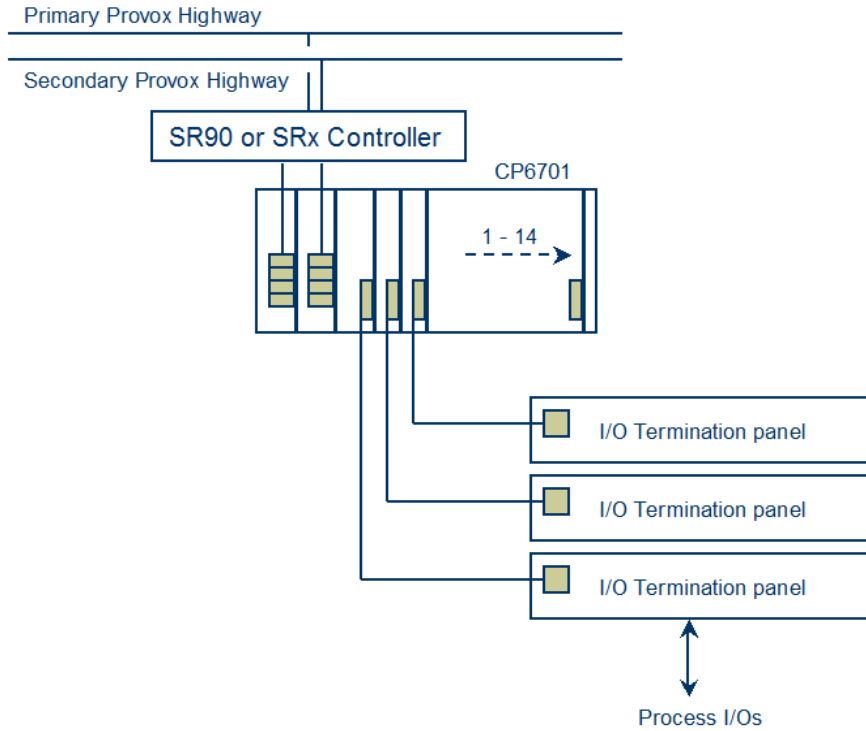
The DeltaV™ system's configuration allows for the engineering conversion to be done efficiently. The speed at which **FMS-PVXCL-DV-2** solution can be implemented ensures to reduce the process downtime to the minimum.

All existing documentations (electrical schemes, loop drawings, maintenance procedures,) remain unchanged as the existing I/O panels are kept in place.

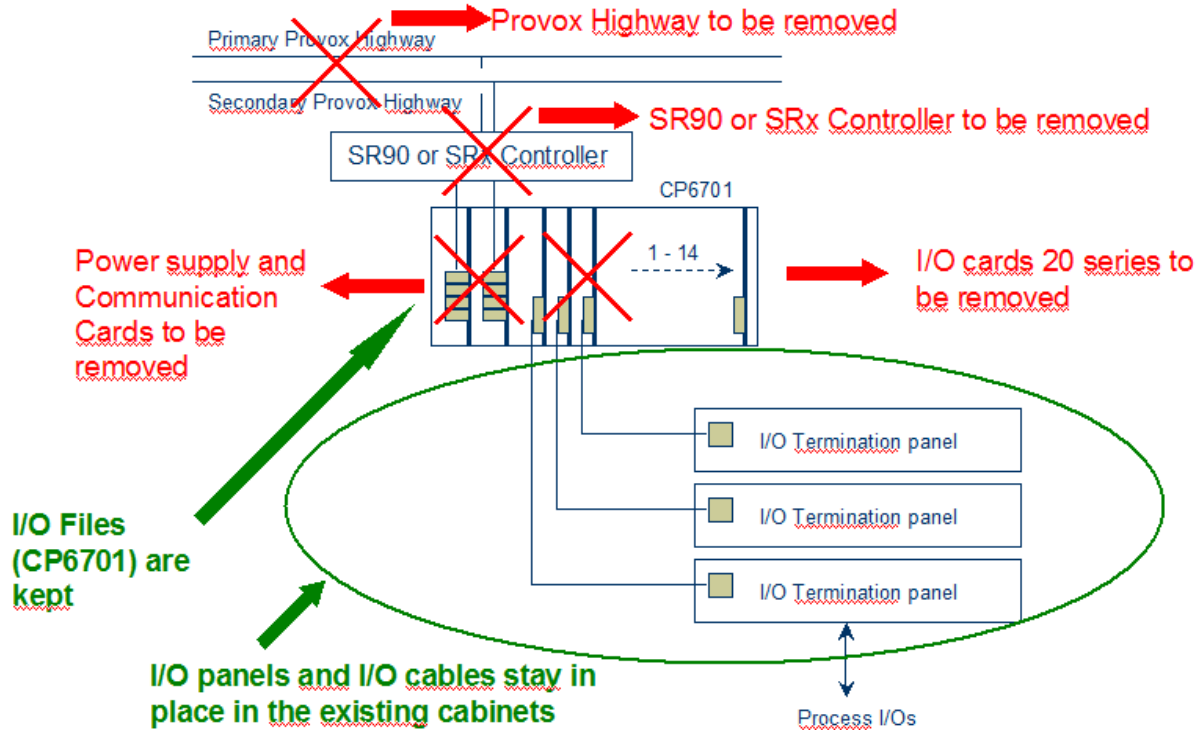


1.2. DESCRIPTION OF THE FMS-PVXCL-DV-2 SOLUTION

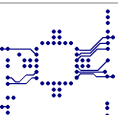
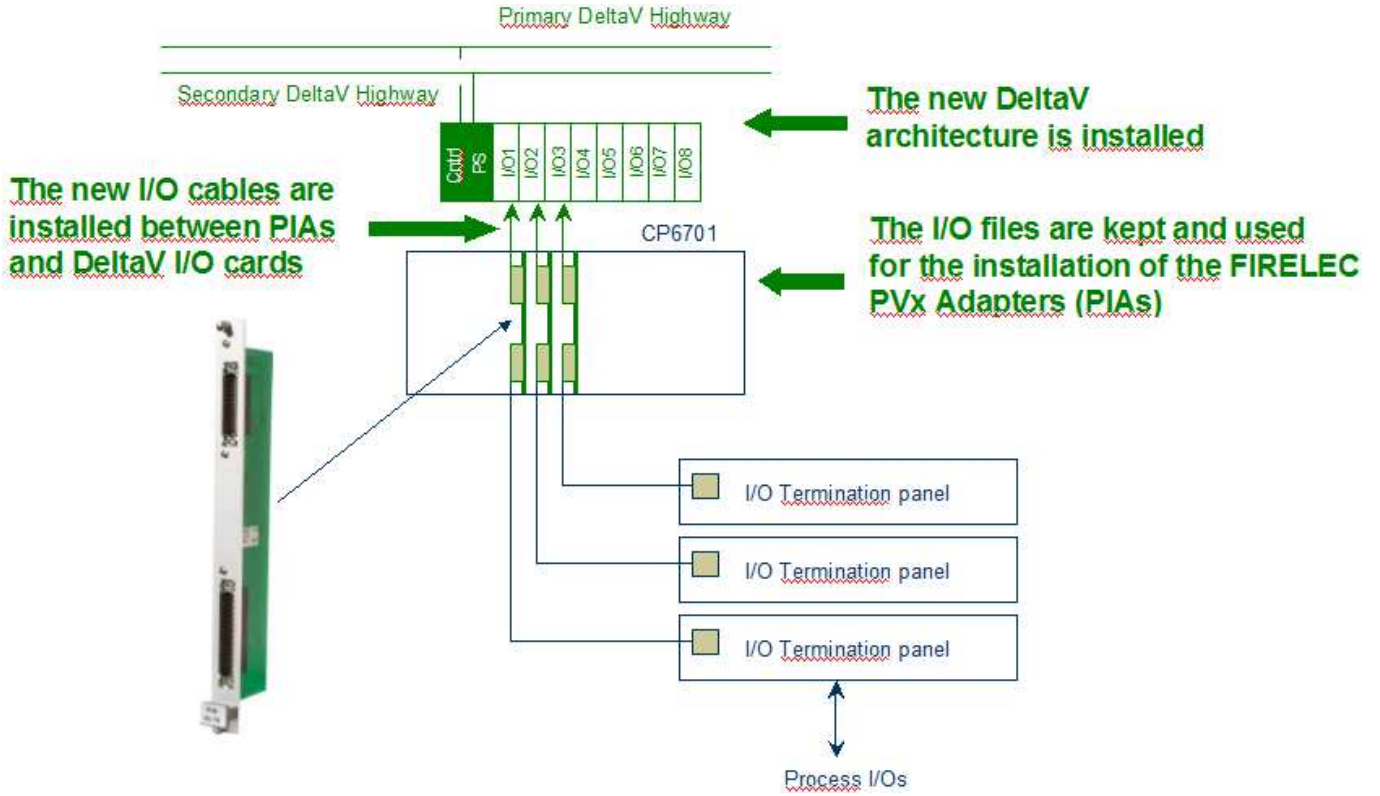
1.2.1. Existing PROVOX™ architecture



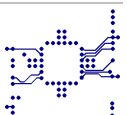
1.2.2. Existing PROVOX™ hardware to be removed



1.2.3. New DeltaV™ architecture



2. DISCRETE OUTPUTS

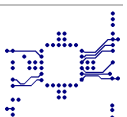


2.1. EXISTING CARD TO BE REMOVED : CL6721

2.1.1. Standard Discrete Outputs Using Migration Adapters

New DeltaV™ architecture - FMS-PVXCL-DV-2-DO1-A1			
Existing Panel	Adapter	Cable	I/O Card
Panel CL6787 or CL6788 Simplex or Redundant Discrete Input/Output Panel (used only as Output) + Cable. 16 channels. With CL6754 modules installed.	PIA-DO-16 Adapter installed in existing file CP6701	CBL-792A (First 16ch) or CBL-792B (Last 16ch) Detail of the cable See cable section on www.firelec.com	1/2 Card VE4002S1T2B5 / 1/2 Card SE4002S1T2B5 Discrete Output card, 32 channels, Screw terminals

New DeltaV™ architecture - FMS-PVXCL-DV-2-DO1-A2			
Existing Panel	Adapter	Cable	I/O Card
Panel CL6787 or CL6788 Simplex or Redundant Discrete Input/Output Panel (used only as Output) + Cable. 16 channels. With CL6754 modules installed.	PIA-2DO-8 Adapter installed in existing file CP6701	2 x CBL-736 Detail of the cable See cable section on www.firelec.com	Card VE4032S1T2B1 / Card SE4032S1T2B1 Redundant Discrete Output card, 2 x 8 channels, Screw terminals

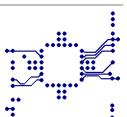


New DeltaV™ architecture - FMS-PVXCL-DV-2-DO1-A3

Existing Panel	Adapter	Cable	I/O Card
Panel CL6787 or CL6788 Simplex or Redundant Discrete Input/Output Panel (used only as Output) + Cable. 16 channels. With CL6754 modules installed.	PIA-DO-16 Adapter installed in existing file CP6701	CBL-773A (First 16ch) or CBL-773B (Last 16ch) Detail of the cable See cable section on www.firelec.com	½ Card VE4002S1T2B6 / ½ Card SE4002S1T2B6 Discrete Output card, 32 channels, 40 pin Mass Termination

New DeltaV™ architecture - FMS-PVXCL-DV-2-DO2-A1

Existing Panel	Adapter	Cable	I/O Card
Panel CL6775 or CL6776 Simplex or Redundant Discrete Output Panel + Cable. 16 channels. With CL6755 modules installed.	PIA-DO-16 Adapter installed in existing file CP6701	CBL-792A (First 16ch) or CBL-792B (Last 16ch) Detail of the cable See cable section on www.firelec.com	½ Card VE4002S1T2B5 / ½ Card SE4002S1T2B5 Discrete Output card, 32 channels, Screw terminals

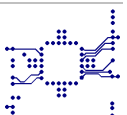


New DeltaV™ architecture - FMS-PVXCL-DV-2-DO2-A2

Existing Panel	Adapter	Cable	I/O Card
Panel CL6775 or CL6776 Simplex or Redundant Discrete Output Panel + Cable. 16 channels. With CL6755 modules installed.	PIA-2DO-8 Adapter installed in existing file CP6701	2 x CBL-736 Detail of the cable See cable section on www.firelec.com	Card VE4032S1T2B1 / Card SE4032S1T2B1 Redundant Discrete Output card, 2 x 8 channels, Screw terminals

New DeltaV™ architecture - FMS-PVXCL-DV-2-DO2-A3

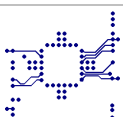
Existing Panel	Adapter	Cable	I/O Card
Panel CL6775 or CL6776 Simplex or Redundant Discrete Output Panel + Cable. 16 channels. With CL6755 modules installed.	PIA-DO-16 Adapter installed in existing file CP6701	CBL-773A (First 16ch) or CBL-773B (Last 16ch) Detail of the cable See cable section on www.firelec.com	1/2 Card VE4002S1T2B6 / 1/2 Card SE4002S1T2B6 Discrete Output card, 32 channels, 40 pin Mass Termination



2.1.2. Intrinsically Safe (Ex) Discrete Outputs Using Migration Adapters

New DeltaV™ architecture - FMS-PVXCL-DV-2-DO3-A1			
Existing Panel	Adapter	Cable	I/O Card
Panel CL6343 Redundant Discrete Input/Output Panel (used only as Output) + Cable. 16 channels. With MTL Intrinsic Safety modules installed.	PIA-DO-16 Adapter installed in existing file CP6701	CBL-792A (First 16ch) or CBL-792B (Last 16ch) Detail of the cable See cable section on www.firelec.com	½ Card VE4002S1T2B5 / ½ Card SE4002S1T2B5 Discrete Output card, 32 channels, Screw terminals

New DeltaV™ architecture - FMS-PVXCL-DV-2-DO3-A2			
Existing Panel	Adapter	Cable	I/O Card
Panel CL6343 Redundant Discrete Input/Output Panel (used only as Output) + Cable. 16 channels. With MTL Intrinsic Safety modules installed.	PIA-2DO-8 Adapter installed in existing file CP6701	2 x CBL-736 Detail of the cable See cable section on www.firelec.com	Card VE4032S1T2B1 / Card SE4032S1T2B1 Redundant Discrete Output card, 2 x 8 channels, Screw terminals

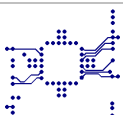


New DeltaV™ architecture - FMS-PVXCL-DV-2-DO3-A3

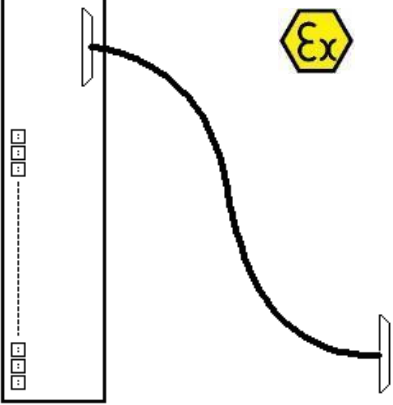

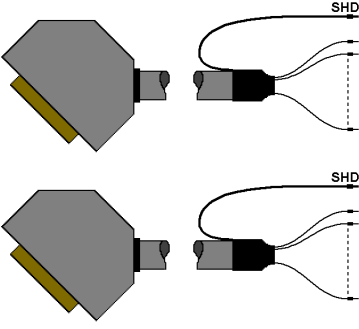

Existing Panel	Adapter	Cable	I/O Card
Panel CL6343	PIA-DO-16	CBL-773A (First 16ch) or CBL-773B (Last 16ch)	½ Card VE4002S1T2B6 / ½ Card SE4002S1T2B6
Redundant Discrete Input/Output Panel (used only as Output) + Cable. 16 channels. With MTL Intrinsic Safety modules installed.	Adapter installed in existing file CP6701	Detail of the cable See cable section on www.firelec.com	Discrete Output card, 32 channels, 40 pin Mass Termination

New DeltaV™ architecture - FMS-PVXCL-DV-2-DO4-A1

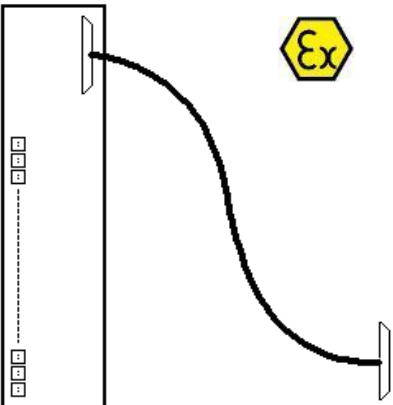

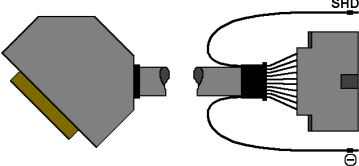
Existing Panel	Adapter	Cable	I/O Card
Panel CL6301-3	PIA-DO-16	CBL-792A (First 16ch) or CBL-792B (Last 16ch)	½ Card VE4002S1T2B5 / ½ Card SE4002S1T2B5
Redundant Discrete Input/Output Panel (used only as Output) + Cable. 16 channels. With CL6303 Intrinsic Safety modules installed.	Adapter installed in existing file CP6701	Detail of the cable See cable section on www.firelec.com	Discrete Output card, 32 channels, Screw terminals



New DeltaV™ architecture - FMS-PVXCL-DV-2-DO4-A2

Existing Panel	Adapter	Cable	I/O Card
<p>Existing Panel CL6301-3</p> <p>Redundant Discrete Input/Output Panel (used only as Output) + Cable. 16 channels. With CL6303 Intrinsic Safety modules installed.</p> 	<p>PIA-2DO-8</p> <p>Adapter installed in existing file CP6701</p> 	<p>2 x CBL-736</p> <p>Detail of the cable See cable section on www.firelec.com</p> 	<p>Card VE4032S1T2B1 / Card SE4032S1T2B1</p> <p>Redundant Discrete Output card, 2 x 8 channels, Screw terminals</p> 

New DeltaV™ architecture - FMS-PVXCL-DV-2-DO4-A3

Existing Panel	Adapter	Cable	I/O Card
<p>Existing Panel CL6301-3</p> <p>Redundant Discrete Input/Output Panel (used only as Output) + Cable. 16 channels. With CL6303 Intrinsic Safety modules installed.</p> 	<p>PIA-DO-16</p> <p>Adapter installed in existing file CP6701</p> 	<p>CBL-773A (First 16ch) or CBL-773B (Last 16ch)</p> <p>Detail of the cable See cable section on www.firelec.com</p> 	<p>1/2 Card VE4002S1T2B6 / 1/2 Card SE4002S1T2B6</p> <p>Discrete Output card, 32 channels, 40 pin Mass Termination</p> 