

Migration

Provox™ > DeltaV™

Discrete Inputs

DM Series - Using ADP-DM

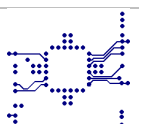
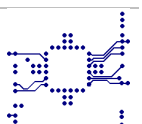
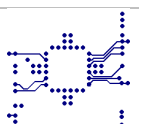


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1. INTRODUCTION



The purpose of this document is to guide the user of a 10 series I/Os PROVOX™ system with the safe, efficient and easy way to migrate toward a DeltaV™ system.

FIRELEC has developed an economical migration solution (FMS-PVXDM-DV) allowing to protect the existing wiring investment as the user convert from an existing PROVOX™ system toward the DeltaV™ system.

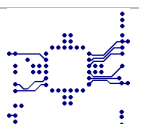
The **FMS-PVXDM-DV-1** solution is a set of migration adapters installed in place of the existing 10 series PROVOX™ I/O files, allowing to migrate easily the existing PROVOX™ I/Os toward a new DeltaV™ system, keeping the I/O wiring in place.

The PROVOX™ I/Os connected on the existing I/O field termination assemblies are kept in place and connected on adapters electrically and mechanically fully compatible with existing I/Os and the new DeltaV™ I/O cards linked using suitable cables provided with each type of migration adapter.

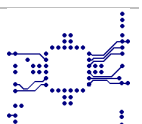
1.1. KEY ADVANTAGES OF THE FMS-PVXDM-DV-1 SOLUTION

FMS-PVXDM-DV-1 solution protects the wiring investment as the user converts from the PROVOX™ 10series system toward the DeltaV™ system of Emerson Process Management with following advantages :

1. **FMS-PVXDM-DV-1** is a pre-engineered solution, ready to work without any technical rework or limitation regarding the existing capabilities of the PROVOX™ system to be migrated.
2. As the instrument wiring is not disturbed, the instrument checkout during start-up is reduced to the minimum
3. The DeltaV™ system's configuration allows for the engineering conversion to be done efficiently. The speed at which **FMS-PVXDM-DV-1** solution can be implemented ensures to reduce the process downtime to the minimum.
4. All existing documentations (electrical and loop drawings, maintenance procedures,) remain unchanged as the I/O labelling is strictly the same on new migration adapters than on previous PROVOX™ I/O field termination assemblies removed.






2. DISCRETE INPUTS



2.1. DM6361

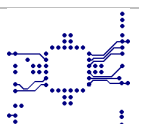
2.1.1. Description and connection

8 channels - Discrete inputs

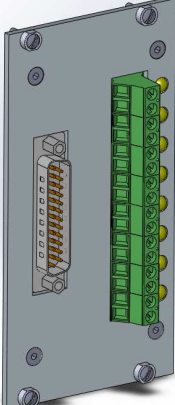
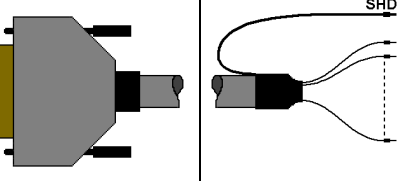

Existing PROVOX™ architecture	
I/O file and communication card	
I/O file	
DM6003	
	
I/O Card	Field Termination Assembly
DM6361-A1 - PN : 46A2626XXXX - 39A7279XXXX	PN : 36A3885XXXX
Discrete Input - 8 channels - Low voltage 0 - 30Vdc	DI Low voltage
	



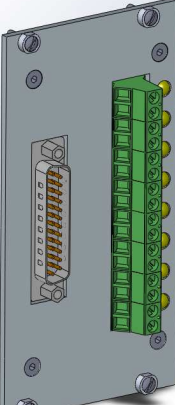
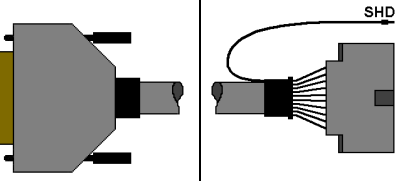

New FIRELEC ADP-DM : ADP-DM-DI-01 (8 channels)
Description
8 channels - Discrete input adapter for dry contact powered by an external PS

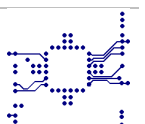


2.1.2. Solution : FMS-PVXDM-DV-DI1-A1

New DeltaV™ architecture - FMS-PVXDM-DV-DI1-A1		
Interface unit	Cable	DeltaV™ card
<p>ADP-DM-DI-01 installed in I/O file type BC11008 with 1U cable tray type CT11068</p> 	<p>CBL-PVXDM-DV-DI1-A1</p> 	<p>VE4001S2T1B1 SE4001S2T1B1 Discrete Input card, 8 channels, 24 Vdc, Isolated, Terminal block</p> 

2.1.3. Solution : FMS-PVXDM-DV-DI1-A2




New DeltaV™ architecture - FMS-PVXDM-DV-DI1-A2		
Interface unit	Cable	DeltaV™ card
<p>ADP-DM-DI-01 installed in I/O file type BC11008 with 1U cable tray type CT11068</p> 	<p>CBL-PVXDM-DV-DI1-A2</p> 	<p>VE4001S2T1B3 SE4001S2T1B3 Discrete Input card, 8 channels, 24 Vdc, Isolated, 16 pin Mass Termination</p> 



2.2. DM6362

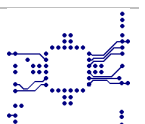
2.2.1. Description and connection

8 channels - Discrete inputs

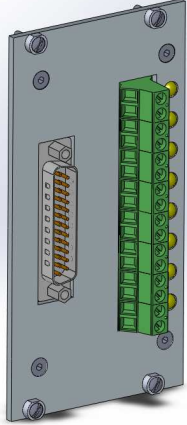
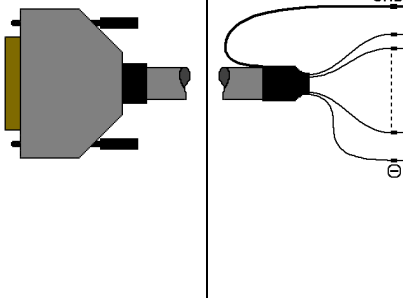

Existing PROVOX™ architecture	
I/O file and communication card	
I/O file	
DM6003	
	
I/O Card	Field Termination Assembly
DM6362-A1 - PN : 46A2626XXXX - 39A7279XXXX	PN : 36A3888XXXX
Discrete Input - 8 channels - Dry contact	DI Dry contact
	



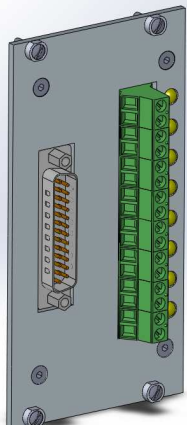
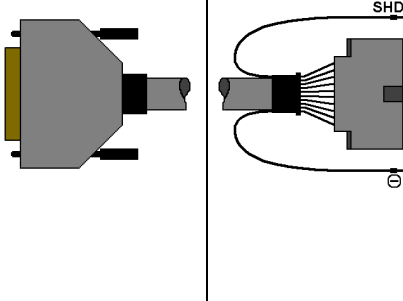

New FIRELEC ADP-DM : ADP-DM-DI-04 (8 channels)
Description
8 channels - Discrete input adapter for dry contact powered by the DeltaV™ DI card

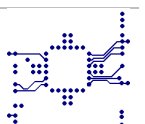


2.2.2. Solution : FMS-PVXDM-DV-DI2-A1

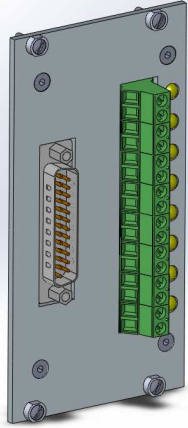
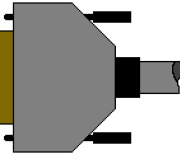
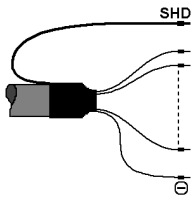

New DeltaV™ architecture - FMS-PVXDM-DV-DI2-A1		
Interface unit	Cable	DeltaV™ card
<p>ADP-DM-DI-04 installed in I/O file type BC11008 with 1U cable tray type CT11068</p> 	<p>CBL-PVXDM-DV-DI2-A1</p> 	<p>VE4001S2T1B1 SE4001S2T1B1 Discrete Input card, 8 channels, 24 Vdc, Isolated, Terminal block</p> 

2.2.3. Solution : FMS-PVXDM-DV-DI2-A2

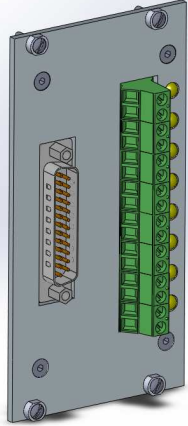
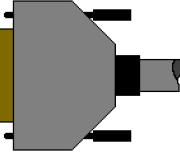
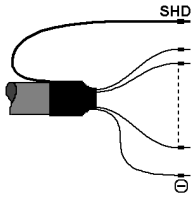

New DeltaV™ architecture - FMS-PVXDM-DV-DI2-A2		
Interface unit	Cable	DeltaV™ card
<p>ADP-DM-DI-04 installed in I/O file type BC11008 with 1U cable tray type CT11068</p> 	<p>CBL-PVXDM-DV-DI2-A2</p> 	<p>VE4001S2T2B3 SE4001S2T2B3 Discrete Input card, 8 channels, 24 Vdc, Dry contact, 16 pin Mass Termination</p> 

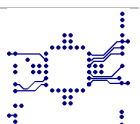


2.2.4. Solution : FMS-PVXDM-DV-DI2-A3

New DeltaV™ architecture - FMS-PVXDM-DV-DI2-A3			
Interface unit	Cable		DeltaV™ card
ADP-DM-DI-04 installed in I/O file type BC11008 with 1U cable tray type CT11068	CBL-PVXDM-DV-DI2-A3		VE4031S2T2B1 SE4031S2T2B1 Discrete Input card, 8 channels, 24 Vdc, Dry contact, Redundant, Terminal block
			

2.2.5. Solution : FMS-PVXDM-DV-DI2-A4




New DeltaV™ architecture - FMS-PVXDM-DV-DI2-A4			
Interface unit	Cable		DeltaV™ card
ADP-DM-DI-04 installed in I/O file type BC11008 with 1U cable tray type CT11068	CBL-PVXDM-DV-DI2-A4 CH 1 to 8 : Cable option A CH 9 to 16 : Cable option B CH 17 to 24 : Cable option C CH 25 to 32 : Cable option D		1/4 x VE4001S2T2B4 1/4 x SE4001S2T2B4 Discrete Input card, 32 channels, 24 Vdc, Dry contact, Terminal block
			



2.3. DM6363

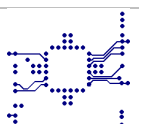
2.3.1. Description and connection

8 channels - Discrete inputs - High voltage 0 - 150Vac

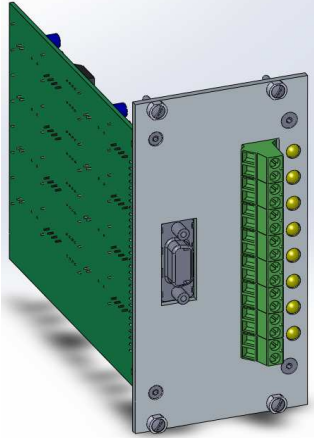
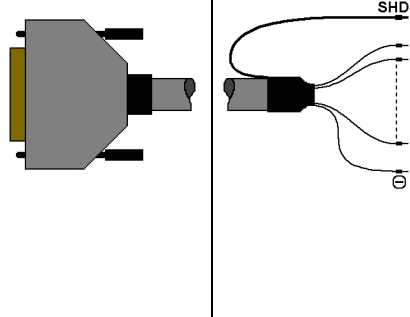

Existing PROVOX™ architecture	
I/O file and communication card	
I/O file	
DM6003	
	
I/O Card	Field Termination Assembly
DM6363-A1 - PN : 46A2626XXXX - 39A7279XXXX - 30B8651XXXX	36A3889XXXX - 30B8622XXXX
Discrete Input - 8 channels - High voltage 0 - 150Vac	DI high voltage
	



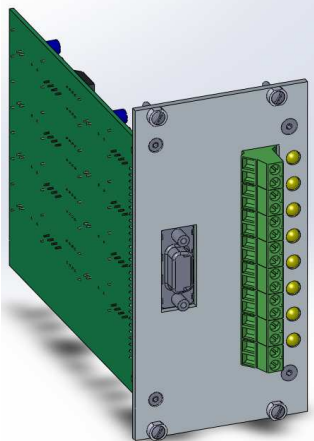
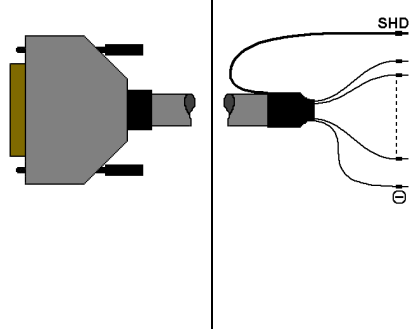

New FIRELEC ADP-DM : ADP-DM-DI-03 (8 channels)	
Description	
8 channels - Discrete input adapter for AC Voltage (0 - 140Vac)	

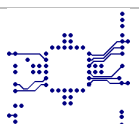


2.3.2. Solution : FMS-PVXDM-DV-DI3-A1

New DeltaV™ architecture - FMS-PVXDM-DV-DI3-A1		
Interface unit	Cable	DeltaV™ card
<p>ADP-DM-DI-03 installed in I/O file type BC11008 with 1U cable tray type CT11068</p> 	<p>CBL-1191A</p> 	<p>VE4001S2T1B1 SE4001S2T1B1 Discrete Input card, 8 channels, 24 Vdc, Isolated, Terminal block</p> 

2.3.3. Solution : FMS-PVXDM-DV-DI3-A2

New DeltaV™ architecture - FMS-PVXDM-DV-DI3-A2		
Interface unit	Cable	DeltaV™ card
<p>ADP-DM-DI-03 installed in I/O file type BC11008 with 1U cable tray type CT11068</p> 	<p>CBL-1191A</p> 	<p>VE4031S2T2B1 SE4031S2T2B1 Discrete Input card, 8 channels, 24 Vdc, Dry contact, Redundant, Terminal block</p> 

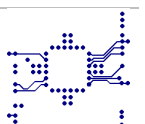


2.3.4. Solution : FMS-PVXDM-DV-DI3-A3

New DeltaV™ architecture - FMS-PVXDM-DV-DI3-A3		
Interface unit	Cable	DeltaV™ card
ADP-DM-DI-03 installed in I/O file type BC11008 with 1U cable tray type CT11068	CBL-PVXDM-DV-DI3-A3	VE4001S2T2B3 SE4001S2T2B3 Discrete Input card, 8 channels, 24 Vdc, Dry contact, 16 pin Mass Termination

2.3.5. Solution : FMS-PVXDM-DV-DI3-A4




New DeltaV™ architecture - FMS-PVXDM-DV-DI3-A4		
Interface unit	Cable	DeltaV™ card
ADP-DM-DI-03 installed in I/O file type BC11008 with 1U cable tray type CT11068	CBL-1191A, B, C or D CH 1 to 8 : Cable option A CH 9 to 16 : Cable option B CH 17 to 24 : Cable option C CH 25 to 32 : Cable option D	1/4 x VE4001S2T2B4 1/4 x SE4001S2T2B4 Discrete Input card, 32 channels, 24 Vdc, Dry contact, Terminal block



2.4. DM6371 -A1 AND -A2

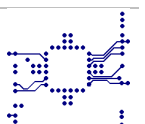
2.4.1. Description and connection

4 channels - Pulse count inputs - Low voltage

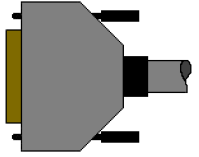
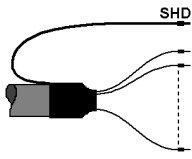

Existing PROVOX™ architecture	
I/O file and communication card	
I/O file	
DM6003	
	
I/O Card	Field Termination Assembly
DM6371-A1 and -A2 - PN : 46A2784XXXX	PN : 36A3885XXXX
-A1 : Pulse Count Input - 4 channels - Low voltage	PCI : Pulse Count Input
-A2 : Pulse Count Input - 4 channels - Low voltage with debounce	
	

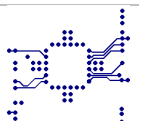
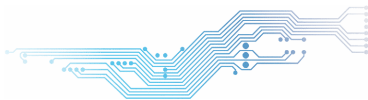


New FIRELEC ADP-DM : ADP-DM-PCI-02 (4 channels)
Description
4 channels - Pulse count input adapter for low Voltage with and without debounce



2.4.2. Solution : FMS-PVXDM-DV-DI4-A1




New DeltaV™ architecture - FMS-PVXDM-DV-DI4-A1			
Interface unit	Cable		DeltaV™ card
<p>ADP-DM-PCI-02 installed in I/O file type BC11008 with 1U cable tray type CT11068</p>	<p>CBL-PVXDM-DV-DI4-A1</p>		<p>VE4015 SE4015 Pulse Input card, 4 channels, Terminal block</p>
<p>ADP-DM-PCI-03 (to be updated)</p>			



2.5. DM6372 - A1 AND -A2

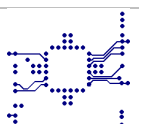
2.5.1. Description and connection

4 channels - Pulse count inputs - Dry contact

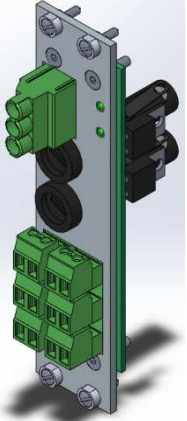
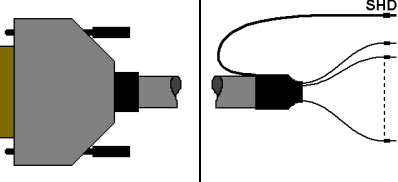

Existing PROVOX™ architecture	
I/O file and communication card	
I/O file	
DM6003	
	
I/O Card	Field Termination Assembly
DM6372-A1 and -A2 - PN : 46A2784XXXX	PN : 36A3888XXXX
-A1 : Pulse Count Input - 4 channels - Dry contact	PCI : Pulse Count Input
-A2 : Pulse Count Input - 4 channels - Dry contact with debounce	
	

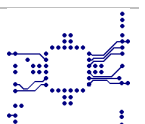


New FIRELEC ADP-DM : ADP-DM-PCI-01 (4 channels)
Description
4 channels - Pulse count input adapter for dry contact input with and without debounce



2.5.2. Solution : FMS-PVXDM-DV-DI5-A1




New DeltaV™ architecture - FMS-PVXDM-DV-DI5-A1			
Interface unit	Cable		DeltaV™ card
<p>ADP-DM-PCI-01 and ADP-DM-PWS installed in I/O file type BC11008 with 1U cable tray type CT11068</p>  <p>+ ADP-DM-PCI-01 (to be updated)</p>	<p>CBL-PVXDM-DV-DI5-A1</p> 		<p>VE4015 SE4015 Pulse Input card, 4 channels, Terminal block</p> 



2.6. DM6373

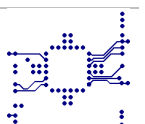
2.6.1. Description and connection

4 channels - Pulse count inputs VORTEX

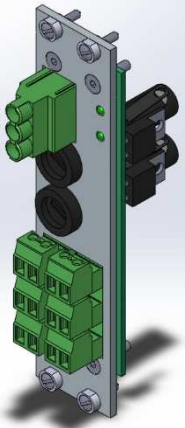
Existing PROVOX™ architecture	
I/O file and communication card	
I/O file	
DM6003	
	
I/O Card	Field Termination Assembly
DM6373-A1 - PN : 46A2784XXXX	PN : 30B1011XXXX
Pulse Count Input - 4 channels - VORTEX	PCI : Pulse Count Input
	



New FIRELEC ADP-DM : ADP-DM-PCI-03 (4 channels)
Description
4 channels - Pulse count input adapter for VORTEX input



2.6.2. Solution : FMS-PVXDM-DV-DI6-A1

New DeltaV™ architecture - FMS-PVXDM-DV-DI6-A1			
Interface unit	Cable		DeltaV™ card
<p>ADP-DM-PCI-03 and ADP-DM-PWS installed in I/O file type BC11008 with 1U cable tray type CT11068</p>	<p>CBL-PVXDM-DV-DI6-A1</p>		<p>VE4015 SE4015 Pulse Input card, 4 channels, Terminal block</p>
 <p>+ ADP-DM-PCI-03 (to be updated)</p>	