

# DeltaV™ M-series Vertical I/O versus Horizontal I/O

---

This document covers the benefits of vertical I/O versus horizontal I/O.



## **Table of Contents**

Introduction .....	3
Benefits of DeltaV Vertical I/O versus Horizontal I/O.....	3

## Introduction

This document covers the benefits of vertical I/O versus horizontal I/O.

## Benefits of DeltaV Vertical I/O versus Horizontal I/O

Vertical I/O is easier to wire up than horizontal I/O because cables coming from the bottom of cabinets may be fanned out and terminated without multiple wire bends. This is in line with current practices of cables coming out of the bottom of cabinets, especially in locations with raised-floor rooms.

Vertical I/O may be retrofitted into existing 19-inch cabinets more efficiently. A full DeltaV controller node's complement of I/O can physically fit into two existing cabinets (8 vertical I/O carriers with 64 card slots of I/O), and it is easier to stay under the 6-meter back plane limit for a node using vertical I/O carriers and cables for basic process control (BPCS) and safety instrumented systems (SIS) communications than when using horizontal I/O carriers.

Overall air-conditioned cabinet footprint can be reduced with vertical I/O, and it provides better thermal management and improved airflow in cabinets due to its orientation of cards. Since vertical I/O carriers may be stacked vertically in a cabinet, gravity helps keep them together and possible movement between carriers is less of a concern.

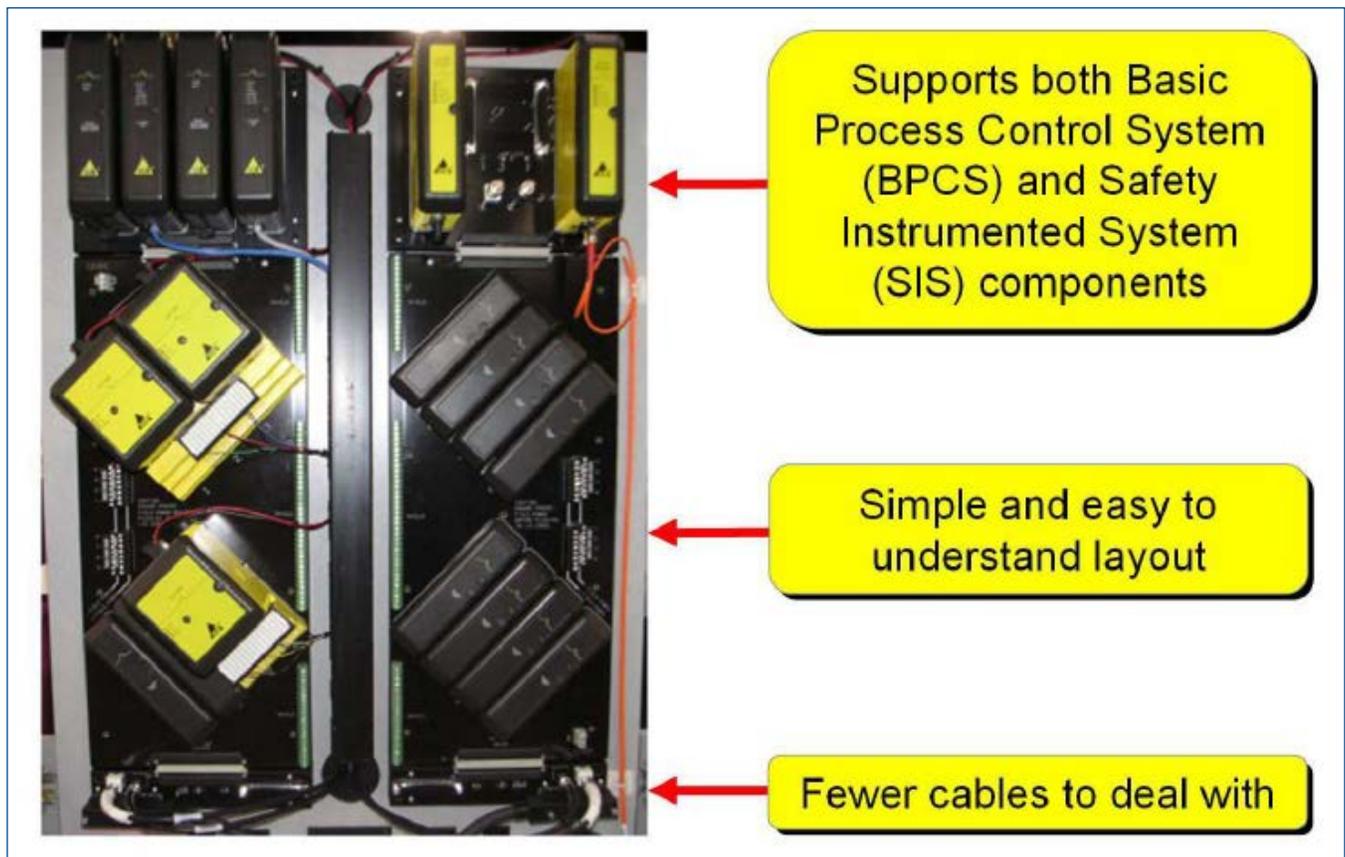


Figure 1 – Vertical I/O Carrier with DeltaV BPCS and SIS Components.

## Emerson

### North America, Latin America:

☎ +1 800 833 8314 or

☎ +1 512 832 3774

### Asia Pacific:

☎ 65 6777 8211

### Europe, Middle East:

☎ +41 41 768 6111

🌐 [www.emerson.com/deltav](http://www.emerson.com/deltav)

©2016, Emerson Process Management. All rights reserved.

The Emerson logo is a trademark and service mark of Emerson Electric Co. The DeltaV logo is a mark of one of the Emerson Process Management family of companies. All other marks are the property of their respective owners.

The contents of this publication are presented for informational purposes only, and while every effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which are available on request. We reserve the right to modify or improve the designs or specifications of our products at any time without notice.