

## VBS11e-FPH

# ABB Ability™ Symphony® Plus Hardware Selector

The VBS11e-FPH mounting base is for the Singular Analog Input (AI12e, FI12e) and Digital I/O (DI06e, DO01e) modules and the (PI01e) Pulse input Module. The base is designed to accommodate field signals that are system-powered, and the (+) Hot side of power is switched

The base includes two (2) 16-point headers that provide connections to (2) pluggable 16-point 5.0 mm terminal blocks for direct connection of field signal wires. SPK0x\_-yy marshaling cables can be used when the field signal wires are terminated on third-party hardware.

## Features and benefits

- Termination for up to sixteen (16) Analog Input or Digital Input/Output process signals within a horizontal row.
- All SD & SDe Series I/O modules & bases of all types (Singular or Redundant) are 100 % fully compatible with each other. Thus, singular and redundant Compact, or Full-size I/O modules can be mounted within a single, common HN800 I/O bus.
- Optional mechanical keying can be implemented to prevent insertion of the wrong I/O module type.
- Latching device on the base locks the base into position on DIN-Rail.
- Industry standard 35-mm DIN rail, Horizontal row mounting.

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### General info

|                             |   |
|-----------------------------|---|
| Article number              | 7PAA015520R11   |
| Line redundancy             | Redundant HN800 I/O Bus   |
| Channels                    | 16  |
| Hot swap                    | No  |
| Supported IO modules        | AI12e, FI12e, DI06e, DO01e, PI01e   |
| Singular or redundant       | Singular  |
| Form factor                 | Full-size (218 mm Tall x 66 mm Wide)  |
| Mounting                    | Vertical Column   |
| HN800 bus length            | 305 mm  |
| MTBF (per MIL-HDBK-217-FN2) | PR A: 1,079,369 hours @ 30 °C; 1,065,631 hours @ 45 °C; 1,011,518 hours @ 70 °C |
| MTTR (Hours)                | 24 Hrs  |

**Detailed data**

|                                    |  |
|------------------------------------|--|
| Overvoltage category               | Category 1 for power. Tested according to IEC/EN 61010-1                       |
| Process signal connections         | 16-CH AI or DIO  |
| Field power connection             | Compact  |
| Field power fusing                 | 5.0 A, entire base   |
| Signal connection                  | 2x pluggable 16-point 5.0 mm Terminal Blocks                                   |
| Max current                        | Indicates 3A maximum current, was corrected during testing for 250 mA @ +24VDC |
| Acceptable field signal wire sizes | #22 -14 AWG stranded or solid, #12 AWG stranded                                |
| Galvanic isolation test voltage    | 1500 V for up to 1 minute  |

**Environment and certification**

|  |  |
|--|--|
| Temperature, Operating                 | -40 to +70 °C Tested according to IEC/EN 60068-2-1, IEC/EN 60068-2-2                               |
| Temperature, Storage                   | -40 to +85 °C Tested according to MIL-STD-810G   |
| Relative humidity                      | 20 % to 95 % @ 40 °C non-condensing. Tested according to IEC/EN 60068-2-78, IEC/EN 61298-3         |
| Vibration (operational sinusoidal)     | 5 to 60 Hz 0.137 mm (0.0054 in.), 60 to 150 Hz 1.0 G. Tested according to IEC/EN 60068-2-6         |
| Vibration (transportation)             | 10 to 500 Hz. Tested according to MIL-STD-810G   |
| Shock (storage)                        | 15 G, 11 msec. Tested according to IEC/EN 60068-2-27   |
| Drop                                   | 100 mm. Tested according to IEC/EN 60068-2-31  |
| Protection class                       | IP20 according to EN 60529   |
| Altitude (operational)                 | Sea level to 3,048 meters (10,000 ft.) Tested according to MIL-STD-810G                            |
| Altitude (storage)                     | Sea level to 12,192 meters (40,000 ft.) Tested according to MIL-STD-810G                           |
| Air quality                            | ISA S71.04 G1, ISA S71.04 G3 compliant versions VBS01-FPHA are also available                      |
| ESD immunity                           | Tested according to IEC/EN 61000-6-2, IEC/EN 61000-4-2, Severity level 3                           |
| Surge immunity                         | Tested according to IEC/EN 61000-6-2, IEC/EN 61000-4-5, Severity level 3                           |
| Electrical fast transient immunity     | Tested according to IEC/EN 61000-6-2, IEC/EN 61000-4-4, Severity level 3                           |
| Radiated RFI immunity                  | Tested according to IEC/EN 61000-6-2, IEC/EN 61000-4-3, Severity level 3                           |
| Conducted Immunity                     | Tested according to IEC/EN 61000-6-2, IEC/EN 61000-4-6, Severity level 3                           |
| Magnetic field immunity                | Tested according to IEC/EN 61000-6-2, IEC/EN 61000-4-8, Severity level 4                           |
| Radiated emission                      | Tested according to IEC/EN 61000-6-4, CISPR 11 + A1, CISPR 16-1-1, Group 1, Class A, ISM equipment |
| Conducted emission                     | Tested according to IEC/EN 61000-6-4, CISPR 11 + A1, CISPR 16-1-1, Group 1, Class A, ISM equipment |
| Voltage dips and interruption immunity | Tested according to IEC/EN 61000-6-2, IEC/EN 61000-4-11  |
| CSA non-hazardous locations            | Certified for use as process control equipment in an ordinary (non-hazardous) location             |
| CSA hazardous, nonincendive locations  | Class I, Division 2, Groups A, B, C, D   |
| Pollution Degree                       | Pollution Degree 1   |
| CE Mark                                | CE Mark EMC directive 2004/108/EC & Low Voltage Directive 2006/95/EC                               |
| RoHS compliance                        | RoHS Directive 2015/863  |
| WEEE compliance                        | DIRECTIVE/2012/19/EU   |

**Dimensions**

|        |          |
|--------|----------|
| Width  | 66 mm    |
| Depth  | 110.7 mm |
| Height | 218 mm   |
| Weight | 330 g    |

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