DATA SHEET

VBS01-SFP

ABB Ability™ Symphony® Plus Hardware Selector

The VBS01-SFP the IO module mounting base is designed for 16-CH standard sized, Singular (Non-Redundnat) analog input, digital input and digital ouput modules.

The VBS01-SFP base is specifically designed to eliminate the need for 3rd party external marshaling hardware.

Each channel of the VBS01-SFP base is individually fused, has a fuse status LED, field power is configurable (system vs. external power) and can be quickly disconnected from field wiring using FPS (Field Power Selector) plugs.

Features and benefits

- 16 configurable IO channels where the following is provided for each CH:
- Field power selection via (EPD-_V, FPH-_V, FPN-_V) FPS plugs. Where LV =< 60V and HV = > 60V.
- Individual fuse and fuse status LED per CH.
- Individual CH field power keying (EPD/FPH/FPN & LV/HV) to prevent incorrect field power from being applied.
- Quick disconnect of field wiring by removing the FPS plug.
- All SD I/O modules & bases of all types (Singular or Redundant) AND (Compact or Full-size), are 100% fully compatible with each other. Thus, Singular & Redundant, Compact or Full-size I/O modules can be mounted within a single, common HN800 I/O bus.

General info	
Article number	8VZZ002700H1
Life cycle status	ACTIVE
Line redundancy	Redundant HN800 I/O Bus
Channels	16
Hot swap	No
Supported IO modules	AI01, AI02, AI05, AI06, AO01, AO02, AO05, AD11, DI01, DI02, DI03, DI04, DO01, DO02, DO05
Singular or redundant	Singular
Form factor	Full-size (218 mm Tall x 103 mm Wide)
Mounting	Vertical Column
HN800 bus length	305 mm
MTBF (per MIL-HDBK-217-FN2)	1,866,544 Hrs
MTTR (Hours)	8 Hrs

Detailed data	
Overvoltage category	Category 1 for power. Tested according to IEC/EN 61010-1
Process signal connections	16-CH AIO or DIO
Field power connection	Compact
Field power fusing	250mA per CH
Signal connection	2x pluggable 16-pt Terminal Blocks
Max current	250mA
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-SFPA 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
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	103 mm
Depth	110.1 mm
Height	218 mm
Weight	544 g

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