

DATA SHEET

VBS01-CJC

ABB Ability™ Symphony® Plus Hardware Selector



The VBS01-CJC the mounting base is for Singular Al03 (8-CH) RTD and Al04 (16-CH) TC & mV Analog Input modules. The base includes a built-in RTD that can be used for Cold Junction Compensation.

Two (2) 16-point headers on the base provide connections to either (2) pluggable 16-point terminal blocks for direct connection of field signal wires or to SPK0x_-yy marshaling cables when field signal wires are landed on 3rd party termination hardware.

Features and benefits

- Termination for up to eight (8) 2/3/4/ wire RTDs or sixteen (16) TC / mV process signals within a horizontal row.
- 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.
- 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.

General info		
Article number	VBS01-CJC	
Line redundancy	Redundant HN800 I/O Bus	
Channels	8 or 16	
Hot swap	No	
Supported IO modules	AI03, AI04	
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)	8,015,104 Hrs	
MTTR (Hours)	8 Hrs	

Detailed data		
Overvoltage category	Category 1 for power. Tested according to IEC/EN 61010-1	
Process signal connections	8-CH RTD or 16-CH TC/mV AI	
Field power connection	Compact	
Field power fusing	n/a	
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-CJCA 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	66 mm	
Depth	110.7 mm	
Height	218 mm	
Weight	327 g	



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