DATA SHEET

cHBS01
ABB Ability™ Symphony® Plus Hardware Selector

HN800 is the redundant, 4.0 MBps IO bus of the Symphony Plus DCS SD Series system. Electrical HN800 bus is made up of horizontal (row) or vertical (columns) bus segments. Horizontal row mount bus segments are comprised of SD Controllers (SPCx00), SD Series I/O and communication moduled mounted between cHBX01L (left side) and cHBX01R (right side) bus eXtenders. The cHBS01 Compact Horizontal Bus Spacer mounts between IO modules within a row and is specifically designed to create a 45mm space for field signal wiring.

cHBS01 has no active components. It is only intended to provide space for field signal wiring in horizontal rows.

Features and benefits

- 24 VDC Module Power connection on cHBXB01L (left side) bus connector
- Redundant HN800 IO bus connectors on both cHBX01L and cHBX01R Compact Horizontal Bus eXtenders
- Use cHBS01 spacers to provide 45 mm wide space within a row for field signal wires

General info	
Article number	2VAA009123R1
Life cycle status	ACTIVE
Line redundancy	Yes
Hot swap	No
Form factor	Compact (127mm)
Mounting	Horizontal Row
HN800 bus length	45 mm
MTBF (per MIL-HDBK-217-FN2)	cHBS01 PR: A = 304,855,182 hours
MTTR (Hours)	cHBS01 MTTR = 8 hours

Detailed data	
Overvoltage category	Category 1 for power. Tested according to IEC/EN 61010-1
Field power connection	n/a
Max current	3.0 A @ 24 VDC
Acceptable field signal wire sizes	n/a
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 (104°F) 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 cHBS01-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	45 mm
Depth	106 mm
Height	137 mm
Weight	198 g

solutions.abb/symphonyplus
solutions.abb/controlsystems