

# cHBX01K02

## 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 cHBX01L Compact Horizontal Bus eXtender mounts on the left side of the row and provides connections for 24 VDC Module Power and the redundant HN800 IO bus. The cHBX01R mounts on the right side of the row and has a connector for the redundant HN800 IO bus.

**cHBX01K02** is a Compact Horizontal Bus segment kit that includes: 1x cHBX01L (left side) bus extender+ 1x cHBX01R (right side) bus extender

### 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 SPK800-xx cables to connect HN800 IO bus between horizontal bus segments (rows)

#### General info

|                             |  |
|-----------------------------|--|
| Article number              | 2VAA008580R1 (cHBX01K02)   |
| Life cycle status           | ACTIVE   |
| Line redundancy             | Yes  |
| Hot swap                    | No   |
| Form factor                 | Compact (127mm)  |
| Mounting                    | Horizontal Row   |
| HN800 bus length            | 90 mm (both cHBX01L & cHBX01R)                                     |
| MTBF (per MIL-HDBK-217-FN2) | cHBX01L PR: A = 10,458,715 hours, cHBX01R PR: A = 21,775,621 hours |
| MTTR (Hours)                | cHBX01L MTTR = 8 hours, cHBX01R MTTR = 8 hours                     |

#### Detailed data

|                                    |  |
|------------------------------------|--|
| Oversvoltage category              | Category 1 for power. Tested according to IEC/EN 61010-1 |
| Field power connection             | Power TB on cHBX01L, 4-pt TB (L+, L-, SA, SB)            |
| Max current                        | 3.0 A @ 24 VDC   |
| Acceptable field signal wire sizes | #18 -12 AWG stranded or solid                            |
| 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  |

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