

I/O MTUs - SD Series I/O

ABB Ability™ Symphony® Plus Hardware Selector

Module Termination Units (MTUs) host SD Series I/O and are keyed to ensure the correct module is used. Many different Module Termination Units (MTUs) options are available for different SD series I/O modules to meet your project requirements.

The MTUs combine with the SD Series I/O product family including DIN Rail horizontally or vertically mounting. The flexible and modular I/O offering works across the entire control landscape regardless of application type, size, or physical location. It includes traditional analog, HART, and digital modules as also turbine specific modules for integrated turbine control solutions.

Below is an outline of the range of different MTUs for SD I/O modules available.



Specific feature ¹	cHBS01-CJC	cHBS01-EPD	cHBS01-FPH	cVBS01-CJC
General info				
Article number	2VAA008419R1 (cHBS01-CJC)	2VAA008416R1 (cHBS01-EPD)	2VAA008417R1 (cHBS01-FPH)	2VAA008423R1 (cVBS01-CJC)
Line redundancy	Redundant HN800 I/O Bus			
Channels	8			
Hot swap	No			
Supported IO modules	cAI04	cAI01, cAO01	cAI01	cAI04
Singular or redundant	Singular			
Form factor	Compact (127 mm Tall x 45 mm Wide)			Compact (145 mm Tall x 66 mm Wide)
Mounting	Horizontal Row			Vertical Column
HN800 bus length	90 mm			200 mm
MTBF (per MIL-HDBK-217-FN2)	16,462,548 Hrs	14,902,200 Hrs	17,400,510 Hrs	
MTTR (Hours)	8 Hrs			
Dimensions				
Width	45 mm			66 mm
Depth	105.8 mm			114.3 mm
Height	136.7 mm			145 mm
Weight	198 g			224 g
Environment and certification				
RoHS compliance	RoHS Directive 2015/863			
WEEE compliance	DIRECTIVE/2012/19/EU			

¹ For detailed information on each module, please visit: symphonyplushardwareselector.automation.abb.com



Specific feature ¹	cVBS01-EPD	cVBS01-FPH	HBR01-CJC	HBR01-EPD
General info				
Article number	2VAA008420R1 (cVBS01-EPD)	2VAA008421R1 (cHBS01-FPH)	8VZZ000403H1 (HBR01-CJC)	2VAA008959R1 (HBR01-EPD)
Line redundancy	Redundant HN800 I/O Bus			
Channels	8		16	
Hot swap	No			
Supported IO modules	cAI01, cAO01	cAI01	RAI04	RAI02, RAO02, RDI01, RD102, RDO01
Singular or redundant	Singular		Redundant	
Form factor	Compact (145 mm Tall x 66 mm Wide)		Full-size (190 mm Tall x 90 mm Wide)	
Mounting	Vertical Column		Horizontal Row	
HN800 bus length	200 mm			
MTBF (per MIL-HDBK-217-FN2)	PR A: 9,169,236 Hrs	9,169,236 Hrs	1,678,689 Hrs	1,648,008 Hrs
MTTR (Hours)	8 Hrs			
Dimensions				
Width	66 mm		90 mm	
Depth	114.3 mm		86.5 mm	
Height	145 mm		202.5 mm	
Weight	224 g		460 g	
Environment and certification				
RoHS compliance	RoHS Directive 2015/863			
WEEE compliance	DIRECTIVE/2012/19/EU			

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Specific feature ¹	HBR01-FPH	HBR01-FPN	HBS01-CJC	HBS01-EPD
General info				
Article number	2VAA008960R1 (HBR01-FPH)	2VAA008961R1 (HBR01-FPN)	HBS01-CJC	HBS01-EPD
Line redundancy	Redundant HN800 I/O Bus			
Channels	16		8 or 16	16
Hot swap	No			
Supported IO modules	RAI02, RDI01, RDI02,RDO01		AI03, AI04	AI01, AI02, AI05, AI06, AO01, AO02, AO05, AD11, DI01, DI02, DI03, DI04, DO01, DO02, DO05, PI01
Singular or redundant	Redundant		Singular	
Form factor	Full-size (190 mm Tall x 90 mm Wide)		Full-size (190 mm Tall x 45 mm Wide)	
Mounting	Horizontal Row			
HN800 bus length	200 mm		150 mm	
MTBF (per MIL-HDBK-217-FN2)	1,648,008 Hrs		5,493,564 Hrs	6,802,416 Hrs
MTTR (Hours)	8 Hrs			
Dimensions				
Width	90 mm		45 mm	
Depth	86.5 mm			
Height	202.5 mm			
Weight	460 g		288 g	
Environment and certification				
RoHS compliance	RoHS Directive 2015/863			
WEEE compliance	DIRECTIVE/2012/19/EU			

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Specific feature ¹	HBS01-FPH	HBS01-FPN	HBS01-UAI	HBS02-EPD
General info				
Article number	HBS01-FPH	HBS01-FPN	8VZZ003272H01 (HBS01-UAI)	2VAA009528R1 (HBS02-EPD)
Line redundancy	Redundant HN800 I/O Bus			
Channels	16		8 or 16	16
Hot swap	No			
Supported IO modules	AI01, AI02, DI01, DI02, DI03, DI04, DO01, DO02, DO05, PI01	DI01, DI02, DI03, DI04, DO01, DO02, DO05, PI01	AI06	DI01, DI02, DI03, DI04, DO01, DO02, DO05
Singular or redundant	Singular			
Form factor	Full-size (190 mm Tall x 45 mm Wide)			Full-size (180 mm Tall x 45 mm Wide)
Mounting	Horizontal Row			
HN800 bus length	150 mm			
MTBF (per MIL-HDBK-217-FN2)	8,010,546 Hrs		5,493,564 Hrs	
MTRR (Hours)	8 Hrs			
Dimensions				
Width	45 mm			
Depth	86.5 mm			
Height	202.5 mm			
Weight	288 g			
Environment and certification				
RoHS compliance	RoHS Directive 2015/863			
WEEE compliance	DIRECTIVE/2012/19/EU			

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Specific feature ¹	VBR01-CJC	VBR01-EPD	VBR01-FPH	VBR01-FPN
General info				
Article number	8VZZ000346H1 (VBR01-CJC)	2VAA008432R1 (VBR01-EPD)	2VAA008434R1 (VBR01-FPH)	2VAA008433R1 (VBR01-FPN)
Line redundancy	Redundant HN800 I/O Bus			
Channels	16			
Hot swap	No			
Supported IO modules	RAI04	RAI02, RAO02, RDI01, RDI02, RDO01	RAI02, RDI01, RDI02, RDO01	
Singular or redundant	Redundant			
Form factor	Full-size (218 mm Tall x 103 mm Wide)			
Mounting	Vertical Column			
HN800 bus length	355 mm			
MTBF (per MIL-HDBK-217-FN2)	4,843,215 Hrs	4,049,892 Hrs		
MTTR (Hours)	8 Hrs			
Dimensions				
Width	103 mm			
Depth	110.1 mm			
Height	218 mm			
Weight	590 g			
Environment and certification				
RoHS compliance	RoHS Directive 2015/863			
WEEE compliance	DIRECTIVE/2012/19/EU			

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Specific feature ¹	VBS01-CJC	VBS01-EPD	VBS01-FPH	VBS01-FPN
General info				
Article number	VBS01-CJC	VBS01-EPD	VBS01-FPH	VBS01-FPN
Line redundancy	Redundant HN800 I/O Bus			
Channels	8 or 16	16		
Hot swap	No			
Supported IO modules	AI03, AI04	AI01, AI02, AI05, AI06, AO01, AO02, AO05, AD11, DI01, DI02, DI03, DI04, DO01, DO02, DO05, PI01	AI01, AI02, DI01, DI02, DI03, DI04, DO01, DO02, DO05, PI01	DI01, DI02, DI03, DI04, DO01, DO02, DO05, PI01
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	8,757,234 Hrs		
MTTR (Hours)	8 Hrs			
Dimensions				
Width	66 mm			
Depth	110.7 mm			
Height	218 mm			
Weight	327 g			
Environment and certification				
RoHS compliance	RoHS Directive 2015/863			
WEEE compliance	DIRECTIVE/2012/19/EU			

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Specific feature ¹	VBS01-SFP	VBS01-UA1	VBS02-EPD
General info			
Article number	8VZZ002700H1 (VBS01-SFP)	8VZZ003273H01 (VBS01-UA1)	2VAA009529R1 (VBS02-EPD)
Line redundancy	Redundant HN800 I/O Bus		
Channels	16	8	16
Hot swap	No		
Supported IO modules	AI01, AI02, AI05, AI06, AO01, AO02, AO05, AD11, DI01, DI02, DI03, DI04, DO01, DO02, DO05	AI06	DI01, DI02, DI03, DI04, DO01, DO02, DO05, PI01
Singular or redundant	Singular		
Form factor	Full-size (218 mm Tall x 103 mm Wide)	Full-size (218 mm Tall x 66 mm Wide)	
Mounting	Vertical Column		
HN800 bus length	305 mm		
MTBF (per MIL-HDBK-217-FN2)	1,866,544 Hrs	8,015,104 Hrs	8,757,234 Hrs
MTRR (Hours)	8 Hrs		
Life cycle status	ACTIVE		
Dimensions			
Width	103 mm	66 mm	
Depth	110.1 mm	110.7 mm	
Height	218 mm		
Weight	544 g	327 g	
Environment and certification			
RoHS compliance	RoHS Directive 2015/863		
WEEE compliance	DIRECTIVE/2012/19/EU		

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Accessories



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Specific feature ¹	cHBS01	cHBX01K02	VBX01K02
General info			
Article number	2VAA009123R1 (cHBS01)	2VAA008580R1 (cHBX01K02)	VBX01K02
Life cycle status	ACTIVE		
Line redundancy	Yes		
Hot swap	No		
Form factor	Compact (127mm)		Special (76 mm)
Mounting	Horizontal Row		Vertical Column
HN800 bus length	45 mm	90 mm (both cHBX01L & cHBX01R)	150 mm (both VBX01T & VBX01B)
MTBF (per MIL-HDBK-217-FN2)	cHBS01 PR: A = 304,855,182 hours	cHBX01L PR: A = 10,458,715 hours, cHBX01R PR: A = 21,775,621 hours	VBX01T PR: B = 10,458,715 hours, VBX01B PR: B = 21,775,621 hours
MTTR (Hours)	cHBS01 MTTR = 8 hours	cHBX01L MTTR = 8 hours, cHBX01R MTTR = 8 hours	VBX01T MTTR = 8 hours, VBX01B MTTR = 8 hours
Dimensions			
Width	45 mm		
Depth	106 mm		
Height	137 mm		
Weight	198 g		
Environment and certification			
RoHS compliance	RoHS Directive 2015/863		
WEEE compliance	DIRECTIVE/2012/19/EU		

¹ For detailed information on each module, please visit: symphonyplushardwareselctor.automation.abb.com

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