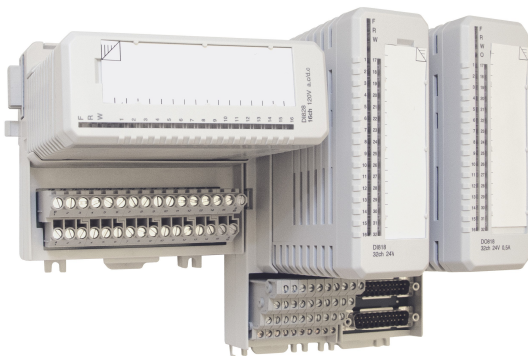


I/O Systems - S800 I/O

Freelance hardware selector



S800 I/O is a comprehensive, distributed and modular process I/O system that communicates with parent controllers over industry-standard fieldbus technology and therefore can be used with a wide range of process controllers from ABB and other vendors.

By permitting installation in the field, close to sensors and actuators, S800 I/O reduces the installation cost by reducing the cost of cabling. And thanks to features such as “hot swap” of modules, “online” reconfiguration, and redundancy options, it contributes to keeping production – and thereby profits – up.

For updated information regarding System 800xA please visit our 800xA Hardware Selector. In the HW-selector, you can compare different communication modules, AC 800M controllers, S800 I/O modules, S900 I/O modules, Select I/O modules, module termination units, network equipment, panels, power supplies, and voters, and also print your PDF files or save an outline of all modules in the product area.

Below is an outline of the range of different S800 I/O modules available.



Specific feature ¹	AI801	AI810	AI815	AI820
General info				
Article number	3BSE020512R1	3BSE008516R1	3BSE052604R1	3BSE008544R1
Type	Analog Input			
Signal specification	0...20 mA, 4...20 mA	0..20mA, 4..20mA, 0..10V, 2..10V	0..20 mA, 4..20 mA, 0..5 V, 1..5 V	-20..+20 mA, 0(4)..20 mA, -10..+10 V, 0(2)..10 V
Number of channels	8			4
Signal type	Unipolar single ended			Bipolar differential
HART	No		Yes	No
SOE	No			
Redundancy	No			
High integrity	No			
Intrinsic safety	No			
Mechanics	S800L	S800		
Dimensions				
Width	86.1 mm (3.4")	45 mm (1.77")		
Depth	58.5 mm (2.3")	102 mm (4.01"), 111 mm (4.37") including connector		
Height	110 mm (4.33")	119 mm (4.7")		
Weight	0.24 kg (0.53 lbs.)	0.2 kg (0.44 lbs.)	0.23 kg (0.51 lbs.)	0.2 kg (0.44 lbs.)
Environment and certification				
RoHS compliance	DIRECTIVE/2011/65/EU (EN 50581:2012)			
WEEE compliance	DIRECTIVE/2012/19/EU			

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



Specific feature ¹	AI825	AI830A	AI835A	AI843
General info				
Article number	3BSE036456R1	3BSE040662R1	3BSE051306R1	3BSE028925R1
Type	Analog Input			
Signal specification	-20..+20 mA, 0(4)..20 mA, -10..+10 V, 0(2)..10V	3-wire RTD: Pt100, Cu10, NI100, Ni120 and resistive potentiometer	-30..75 mV linear; TC types B, C, D, E, J, K, L, N, R, S, T and U	-30..75 mVlinear, TC types B, C, E, J, K, L, N, R, S, T and U
Number of channels	4	8		
Signal type		See table in S800 Modules and Termination Units, 3BSE020924		See table
HART	No			
SOE	No			
Redundancy	No			Yes
High integrity	No			
Intrinsic safety	No			
Mechanics	S800			
Dimensions				
Width	45 mm (1.77")			
Depth	102 mm (4.01"), 111 mm (4.37") including connector			
Height	119 mm (4.7")			
Weight	0.22 kg (0.49 lbs.)			0.157 kg (0.35 lbs.)
Environment and certification				
RoHS compliance	DIRECTIVE/2011/65/EU (EN 50581:2012)			
WEEE compliance	DIRECTIVE/2012/19/EU			

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



Specific feature ¹	AI845	AI890	AI893	AI895
General info				
Article number	3BSE023675R1	3BSC690071R1	3BSC690141R1	3BSC690086R1
Type	Analog Input			
Signal specification	0..20mA, 4..20 mA, 0..5 V, 1..5 V	0...20 mA	RTD or TC	4...20 mA
Number of channels	8			
Signal type	Unipolar single ended		Differential	Unipolar single ended
HART	Yes	No		Yes
SOE	No			
Redundancy	Yes	No		
High integrity	No			
Intrinsic safety	No	Yes		
Mechanics	S800			
Dimensions				
Width	45 mm (1.77")			
Depth	102 mm (4.01"), 111 mm (4.37") including connector			
Height	119 mm (4.7")			
Weight	0.23 kg (0.51 lbs.)	0.2 kg (0.44 lbs.)	0.16 kg (0.35 lbs.)	0.2 kg (0.44 lbs.)
Environment and certification				
RoHS compliance	DIRECTIVE/2011/65/EU (EN 50581:2012)			
WEEE compliance	DIRECTIVE/2012/19/EU			

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



Specific feature ¹	AO801	AO810V2	AO815	AO820
General info				
Article number	3BSE020514R1	3BSE038415R1	3BSE052605R1	3BSE008546R1
Type	Analog Output			
Signal specification	0... 20 mA, 4...20 mA	0..20 mA, 4..20 mA	4..20 mA	-20 mA...+20 mA, 0...20 mA, 4...20 mA, -10 V...+10 V, 0...10 V, 2...10 V
Number of channels	8			4
Signal type	Unipolar single ended			
HART	No		Yes	No
SOE	No			
Redundancy	No			
High integrity	No			
Intrinsic safety	No			
Mechanics	S800L	S800		
Dimensions				
Width	86.1 mm (3.4")	45 mm (1.77")		
Depth	58.5 mm (2.3")	102 mm (4.01"), 111 mm (4.37") including connector		
Height	110 mm (4.33")	119 mm (4.7")		
Weight	0.24 kg (0.53 lbs.)	0.18 kg (0.4 lbs.)	0.21 kg (0.46 lbs.)	0.18 kg (0.4 lbs.)
Environment and certification				
RoHS compliance	DIRECTIVE/2011/65/EU (EN 50581:2012)			
WEEE compliance	DIRECTIVE/2012/19/EU			

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



Specific feature ¹	AO845A	AO890	AO895	DI801
General info				
Article number	3BSE045584R1	3BSC690072R1	3BSC690087R1	3BSE020508R1
Type	Analog Output			Digital Input
Signal specification	4..20 mA	0..20 mA, 4..20 mA	4...20 mA	24V d.c.
Number of channels	8			16
Signal type		Unipolar single ended		Current sinking
HART	Yes	No	Yes	No
SOE	No			
Redundancy	Yes	No		
High integrity	No			
Intrinsic safety	No	Yes		No
Mechanics	S800			S800L
Dimensions				
Width	45 mm (1.77")			86.1 mm (3.4")
Depth	102 mm (4.01"), 111 mm (4.37") including connector			58.5 mm (2.3")
Height	119 mm (4.7")			110 mm (4.33")
Weight	0.21 kg (0.46 lbs.)	0.2 kg (0.44 lbs.)		0.24 kg (0.53 lbs.)
Environment and certification				
RoHS compliance	DIRECTIVE/2011/65/EU (EN 50581:2012)			DIRECTIVE/2011/65/EN (EN 50581:2012)
WEEE compliance	DIRECTIVE/2012/19/EU			

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



Specific feature ¹	DI802	DI803	DI810	DI811
General info				
Article number	3BSE022360R1	3BSE022362R1	3BSE008508R1	3BSE008552R1
Type	Digital Input			
Signal specification	120 V a.c., 110 V d.c.	230 V a.c., 220 V d.c.	24 V d.c.	48 V d.c.
Number of channels	8		16	
Signal type	Current sinking			
HART	No			
SOE	No			
Redundancy	No			
High integrity	No			
Intrinsic safety	No			
Mechanics	S800L		S800	
Dimensions				
Width	86.1 mm (3.4")		45 mm (1.77")	
Depth	58.5 mm (2.3")		102 mm (4.01"), 111 mm (4.37") including connector	
Height	110 mm (4.33")		119 mm (4.7")	
Weight	0.24 kg (0.53 lbs.)		0.15 kg (0.33 lbs.)	
Environment and certification				
RoHS compliance	DIRECTIVE/2011/65/EU (EN 50581:2012)		DIRECTIVE/65/EU (EN 50581:2012)	DIRECTIVE/2011/65/EU (EN 50581:2012)
WEEE compliance	DIRECTIVE/2012/19/EU			

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



Specific feature ¹	DI814	DI818	DI820	DI821
General info				
Article number	3BUR001454R1	3BSE069052R1	3BSE008512R1	3BSE008550R1
Type	Digital Input			
Signal specification	24 V d.c.		120 V a.c. / 110 V d.c.	230 V a.c., 220 V d.c.
Number of channels	16	32	8	
Signal type	Current sourcing		Current sinking	
HART	No			
SOE	No			
Redundancy	No			
High integrity	No			
Intrinsic safety	No			
Mechanics	S800			
Dimensions				
Width	45 mm (1.77")			
Depth	102 mm (4.01"), 111 mm (4.37") including connector			
Height	119 mm (4.7")			
Weight	0.15 kg (0.33 lbs.)		0.18 kg (0.4 lbs.)	
Environment and certification				
RoHS compliance	DIRECTIVE/2011/65/EU (EN 50581:2012)			
WEEE compliance	DIRECTIVE/2012/19/EU			

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



Specific feature ¹	DI828	DI890	DO801	DO802
General info				
Article number	3BSE069054R1	3BSC690073R1	3BSE020510R1	3BSE022364R1
Type	Digital Input		Digital Output	
Signal specification	120 V a.c. / d.c.	NAMUR input level	24 V d.c. (12 - 32 V d.c.), 0.5 A	24...110 V d.c. / 250 V a.c. (max 2 A)
Number of channels	16	8	16	8
Signal type	Current sinking	Proximity sensor (NAMUR) or Voltage free contact	Current sourcing, current limiting	Relay (NO)
HART	No			
SOE	No			
Redundancy	No			
High integrity	No			
Intrinsic safety	No	Yes	No	
Mechanics	S800		S800L	
Dimensions				
Width	45 mm (1.77")		86.1 mm (3.4")	
Depth	102 mm (4.01"), 111 mm (4.37") including connector		58.5 mm (2.3")	
Height	119 mm (4.7")		110 mm (4.33")	
Weight	0.15 kg (0.33 lbs.)	0.2 kg (0.44 lbs.)	0.24 kg (0.53 lbs.)	
Environment and certification				
RoHS compliance	DIRECTIVE/2011/65/EU (EN 50581:2012)			
WEEE compliance	DIRECTIVE/2012/19/EU			

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



Specific feature ¹	DO810	DO814	DO815	DO818
General info				
Article number	3BSE008510R1	3BUR001455R1	3BSE013258R1	3BSE069053R1
Type	Digital Output			
Signal specification	24V d.c. (12 - 32 V d.c.), 0.5 A	24 V d.c. (12-32 V d.c.), 0.5 A	24 V d.c. (10 - 32 V d.c.), 2A	24 V d.c. (12 - 32 V d.c.), 0.5 A
Number of channels	16		8	32
Signal type	Current sourcing, current limiting	Current sinking, current limiting	High side driver, current limiting	Current sourcing, current limiting
HART	No			
SOE	No			
Redundancy	No			
High integrity	No			
Intrinsic safety	No			
Mechanics	S800			
Dimensions				
Width	45 mm (1.77")			45 mm (1.77")
Depth	102 mm (4.01"), 111 mm (4.37") including connector			102 mm (4.01"), 111 mm (4.37") including connector
Height	119 mm (4.7")			119 mm (4.7")
Weight	0.18 kg (0.4 lbs.)		0.2 kg (0.44 lbs.)	0.18 kg (0.4 lbs.)
Environment and certification				
RoHS compliance	DIRECTIVE/2011/65/EU (EN 50581:2012)	DIRECTIVE/2011/65/EN (EN 50581:2012)		
WEEE compliance	DIRECTIVE/2012/19/EU			

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



Specific feature ¹	DO820	DO821	DO828	DO840
General info				
Article number	3BSE008514R1	3BSE013250R1	3BSE069055R1	3BSE020838R1
Type	Digital Output			
Signal specification	230 V a.c. / d.c. (5 - 250 V a.c./d.c.), 3 A	230 V a.c./d.c. (5-250 V a.c./d.c.), 3 A	125 V d.c. / 250 V a.c., (5 - 125 V d.c. / 5 - 250 V a.c.), 2 A	24 V d.c. (19.2 - 32 V d.c.), 0.5 A
Number of channels	8		16	
Signal type	Relay (NO)	Relay (NC)	Relay (NO)	Current sourcing, current limiting
HART	No			
SOE	No			
Redundancy	No			Yes
High integrity	No			
Intrinsic safety	No			
Mechanics	S800			
Dimensions				
Width	45 mm (1.77")		45 mm (1.77")	45 mm (1.77")
Depth	102 mm (4.01"), 111 mm (4.37") including connector		102 mm (4.01"), 111 mm (4.37") including connector	102 mm (4.01"), 111 mm (4.37") including connector
Height	119 mm (4.7")		119 mm (4.7")	119 mm (4.7")
Weight	0.23 kg (0.5 lbs.)		0.18 kg (0.4 lbs.)	0.15 kg (0.33 lbs.)
Environment and certification				
RoHS compliance	DIRECTIVE/2011/65/EN (EN 50581:2012)			
WEEE compliance	DIRECTIVE/2012/19/EU			

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Specific feature ¹	DO890	DP820	DP840
General info			
Article number	3BSC690074R1	3BSE013228R1	3BSE028926R1
Type	Digital Output	Pulse counter	
Signal specification	11 V, 40 mA	24 V d.c. (12 - 32 V d.c.)	24 V d.c. (19.2 - 32 V d.c.)
Number of channels	4	2	8
Signal type	Solenoid driver		
HART	No		
SOE	No		
Redundancy	No		Yes
High integrity	No		
Intrinsic safety	Yes	No	
Mechanics	S800		
Dimensions			
Width	45 mm (1.77")		
Depth	102 mm (4.01"), 111 mm (4.37") including connector		
Height	119 mm (4.7")		
Weight	0.2 kg (0.44 lbs.)	0.15 kg (0.33 lbs.)	0.15 kg (0.33 lbs)
Environment and certification			
RoHS compliance	DIRECTIVE/2011/65/EN (EN 50581:2012)	DIRECTIVE/2011/65/EU (EN 50581:2012)	
WEEE compliance	DIRECTIVE/2012/19/EU		

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

Accessories



Specific feature ¹	TB805	TB806	TB807	TB845
General info				
Article number	3BSE008534R1	3BSE008536R1	3BSE008538R1	3BSE021437R1
Mechanics	S800			
Dimensions				
Width	22 mm		17 mm	43 mm
Depth	25 mm		13 mm	31.5 mm
Height	109 mm		19 mm	186 mm
Weight	46 g		10 g	180 g
Environment and certification				
RoHS compliance	Directive 2011/65/EU (EN 50581:2012)			
WEEE compliance	DIRECTIVE/2012/19/EU			

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Specific feature ¹	TB846	TK801V003	TK801V006	TK801V012
General info				
Article number	3BSE021439R1	3BSC950089R1	3BSC950089R2	3BSC950089R3
Mechanics	S800			
Dimensions				
Width	43 mm			
Depth	31.5 mm			
Height	186 mm			
Weight	180 g	0,155 kg	0.19 kg	0.265 kg
Environment and certification				
RoHS compliance	DIRECTIVE/2011/65/EU (EN 50581:2012)			
WEEE compliance	DIRECTIVE/2012/19/EU			

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Specific feature ¹	TK811V015	TK811V050	TK811V150	TK812V015
General info				
Article number	3BSC950107R1	3BSC950107R2	3BSC950107R3	3BSC950118R1
Dimensions				
Weight	0.02 kg	0.045 kg	0.125 kg	0.015 kg
Environment and certification				

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



Specific feature ¹	TK812V050	TK812V150	TY801K01	TY804K01
General info				
Article number	3BSC950118R2	3BSC950118R3	3BSE023607R1	3BSE033670R1
Mechanics			S800	
Dimensions				
Width			15.5 mm	
Depth			62 mm	
Height			11 mm	
Weight	0.025 kg	0.065 kg	0.06 kg	
Environment and certification				
RoHS compliance			Directive 2011/65/EU (EN 50581:2012)	DIRECTIVE/2011/65/EU (EN 50581:2012)
WEEE compliance			DIRECTIVE/2012/19/EU	

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Specific feature ¹	TY805K01	TY820K01
General info		
Article number	3BSE081160R1	3BSE056980R1
Mechanics	S800	
Dimensions		
Width	15.5 mm	20 mm
Depth	62 mm	8 mm
Height	11 mm	13 mm
Weight	0.06 kg	0.08 kg
Environment and certification		
RoHS compliance	Directive 2011/65/EU (EN 50581:2012)	
WEEE compliance	DIRECTIVE/2012/19/EU	

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