

Communications - S800 I/O Communication interfaces

Compact Product Suite hardware selector

The S800 I/O family is a highly flexible and modular process I/O system that communicates with parent controllers and PLCs over industry standard Fieldbus technology, permitting a virtually infinite number of installation and communication arrangements for any application:

- Small to large
- Step-by-step expansion
- Easy mounting on a DIN-rail

Thanks to its broad connectivity it fits a wide range of process controllers and PLCs from ABB and others. 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 keep 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, networks 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 communication interfaces available.



Specific feature ¹	CI801	CI840A	CI845	TB820V2
General info				
Article number	3BSE022366R1	3BSE041882R1	3BSE075853R1	3BSE013208R1
Communication protocol	PROFIBUS DP-V1		Ethernet	Modulebus
Master or slave	Slave			
Line redundancy	No	Yes		No
Module redundancy	No	Yes		No
Hot Swap	No	Yes		No
Used together with HI Controller	Yes			No
Type			Ethernet FCI Module	
HART			Yes	
SOE			Yes	
Redundancy			Yes	
Hot swap			Yes	
High integrity			N/A	
Intrinsic safety			N/A	
Mechanics			Select I/O	
Dimensions				
Width	85.8 mm (3.38 in.)	54 mm (2.13 in.)	30 mm	58 mm (2.39 in.)
Height	136 mm (5.35 in.) including latch	119 mm (4.69 in.)	135 mm	170 mm (6.7 in.) including latch
Depth	58.5 mm (2.30 in.)	96 mm (3.78 in.)	121.7 mm	122 mm (4.8 in.)
Weight	0.3 kg (0.66 lbs.)	0.2 kg (0.44 lbs.)		0.3 kg (0.66 lbs)
Weight (including base)			225 g	
Environment and certification				
RoHS compliance	DIRECTIVE/2011/65/EU (EN 50581:2012)		EU RoHS, UAE RoHS, CN RoHS	DIRECTIVE/2011/65/EU (EN 50581:2012)
WEEE compliance	DIRECTIVE/2012/19/EU		EU	DIRECTIVE/2012/19/EU

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



Specific feature ¹	TB825 (Multi Mode)	TB826 (Single Mode)	TB840A	TB842
General info				
Article number	3BSE036634R1	3BSE061637R1	3BSE037760R1	3BSE022464R1
Communication protocol	Modulebus			
Master or slave	Slave			N/A
Line redundancy	No	Yes		
Module redundancy	No	Yes		
Hot Swap	No	Yes		
Used together with HI Controller	Yes			No
Mounting				Vertical or Horizontal
Dimensions				
Width	85.6 mm (3.37 in.)		54 mm (2.13 in.)	17.6 mm (0.69")
Height	136 mm (5.35 in.) including latch		119 mm (4.69 in.)	56.7 mm (2.23")
Depth	58.5 mm (2.30 in.)		96 mm (3.78 in.)	42.3 mm (1.67")
Weight	0.21 kg (0.46 lbs)		0.2 kg (0.44 lbs)	90 g (0.20 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: compacthardwareselector.automation.abb.com



Specific feature ¹	TC810	TC811	TU807	TU840
General info				
Article number	3BSE076220R1	3BSE078714R1	3BSE039025R1	3BSE020846R1
Communication protocol	Ethernet		Modulebus	
Master or slave			N/A	
Line redundancy				Yes
Module redundancy				Yes
Hot Swap			No	
Used together with HI Controller			Yes	
Type	Ethernet Adapter for copper media	Ethernet Adapter for fiber optic media		Redundant TB840/TB840A, Redundant I/O, Single Power
HART	N/A			
SOE	N/A			
Redundancy	Yes			
Hot swap	Yes			
High integrity	N/A			
Intrinsic safety	N/A			
Mechanics	Select I/O			
Mounting			Vertical or Horizontal	
Type of external output	100 Base-TX with RJ 45 (8P8C) connector	100 BASE-FX with LC connector		
Number of external ports	2			
Type of connecting cable	CAT 5, WG 22 or better	9/125 μm single mode fiber (1310 nm nominal wavelength)		
Maximum length of cable	100 m	27.5 km		
Power input			24 V d.c. (19.2 - 30 V)	24 V d.c. (19.2 -30 V)
Dimensions				
Width	25 mm	24.5 mm	59 mm (1.57")	124 mm (4.88 in.)
Height	110 mm		186.5 mm (7.34") including latch	186 mm (7.32 in.) including latch
Depth	76.3 mm	101.3 mm	47 mm (1.85")	47 mm (1.85 in.)
Weight			0.45 kg (0.99 lbs.)	
Weight (including base)	105 g	161 g		
Environment and certification				
RoHS compliance	EU RoHS, UAE RoHS, CN RoHS		DIRECTIVE/2011/65/EU (EN 50581:2012)	
WEEE compliance	EU		DIRECTIVE/2012/19/EU	

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



Specific feature ¹	TU841	TU846	TU847	TU848
General info				
Article number	3BSE020848R11	3BSE022460R1	3BSE022462R1	3BSE042558R1
Communication protocol	Modulebus	PROFIBUS DP-V1		Modulebus
Master or slave	N/A			
Line redundancy	Yes			Yes
Module redundancy		Yes		
Hot Swap	No			
Type	Redundant TB840/TB840A, Single I/O, Single Power	Redundant CI840/CI840A, Redundant I/O	Redundant CI840/CI840A, Single I/O	Redundant TB840/TB840A, Redundant I/O, Dual Power
Mounting	Vertical or Horizontal			
Power input	24 V d.c (19.2 - 30 V)	24 V d.c. (19.2 - 30 V)		24 V d.c (19.2 -30 V)
Dimensions				
Width	124 mm (4.88 in.)	124 mm (4.88")	124 mm (4.88")	124 mm (4.88 in.)
Height	186 mm (7.32 in.) including latch	186 mm (7.32") including latch		186.5 mm (7.34 in.) including latch
Depth	47 mm (1.85 in.)	47 mm (1.85")	47 mm (1.85")	47 mm (1.85 in.)
Weight	0.45 kg (0.99 lbs.)	0.5 kg (1.1 lbs.)		0.45 kg (0.99 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: compacthardwareselector.automation.abb.com



Specific feature ¹	TU849	TU860
General info		
Article number	3BSE042560R1	3BSE078710R1
Communication protocol	Modulebus	Ethernet
Master or slave	N/A	
Line redundancy	Yes	
Hot Swap	No	
Type	Redundant TB840/TB840A, Single I/O, Dual Power	MTU for Ethernet FCI (S800 I/O)
Mechanics		Select I/O
Mounting	Vertical or Horizontal	
Power input	24 V d.c (19.2 -30 V)	
Dimensions		
Width	124 mm (4.88 in.)	135 mm (5.31 in.)
Height	186.5 mm (7.34 in.) including latch	210 mm (8.26 in.)
Depth	47 mm (1.85 in.)	95.5 mm (3.76 in.)
Weight	0.45 kg (0.99 lbs.)	
Weight (including base)		500 g (1.1 lbs)
Environment and certification		
RoHS compliance	DIRECTIVE/2011/65/EU (EN 50581:2012)	EU RoHS, UAE RoHS, CN RoHS
WEEE compliance	DIRECTIVE/2012/19/EU	EU

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