

DATA SHEET

## I/O MTU System 800xA hardware selector



S800 I/O is a comprehensive, distributed and modular process I/O system that communicates with parent controllers over industry-standard field buses. Module Termination Units (MTUs) host S800 I/O modules and are keyed to ensure the correct module is used. Many Module Termination Units (MTUs) options are available for various S 800 I/O modules to meet your project requirements.

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, "on-line" reconfiguration and redundancy options, it contributes to keeping production – and thereby profits – up.

For updated information regarding System 800xA hardware please visit our 800xA Hardware Selector. In the selector you can compare different communication modules, S800 IO modules, module termination units, controllers, power supplies and voters, panels and also print your own pdf files.

www.800xahardwareselector.com









Specific feature <sup>1</sup>	TU810V1	TU811V1	TU812V1	TU813
General info				
Article number	3BSE013230R1	3BSE013231R1	3BSE013232R1	3BSE036714R1
Туре	Compact			
Connection	Terminal block		25 pin D-sub	Crimp Snap-in connector
Channels	16	8	16	8
Voltage	50 V	250 V	50 V	250 V
Mounting	Both directions			
Mounting detail	Horizontal 55 °C (131 °F) Vertical 40 °C (104 °F)	Horizontal 55 Cº (131 °F)  Vertical 40 °C (104 °F)  Horizontal 55 °C (131 °F)  Vertical 40 °C (104 °F)		
Use with I/O	AI810, AI815, AI820, AI830, AI830A, AI835, AI835A, AI845, AO810, AO810V2, AO815, AO820, AO845, AO845A, DI810, DI811, DI814, DI830, DI831, DI840, DI880, DI885, DO810, DO814, DO815, DO840, DO880, DP820, DP840	DI820, DI821, DO820, and DO821	AI810, AI815, AI820, AI830, AI830A, AI835, AI835A, AI845, AO810, AO810V2, AO815, AO820, AO845, AO845A, DI810, DI811, DI814, DI830, DI831, DI840, DI880, DI885, DO810, DO814, DO840, DO880, DP820 and DP840	DI820, DI821, DI825, DO820 DO821 and AI825
Process connections	2 x 2 Process power, 5 x 2 Process power (0 V)		25 pin (male) D-Sub connector up to 16 I/O signals	16
Single/redundant I/O	Single			
Dimensions				
Width	64 mm (2.52 in.) including connector, 58.5 mm (2.3 in.) edge to edge installed	64 mm (2.52 in.) including connector, 58.5 mm (2.3 in.) edge to edge installed		
Depth	64 mm (2.52 in.) including terminals	64 mm (2.52 in.), including terminals		
Height	170 mm (6.7 in.) including latch		170 mm (6.7 in.), including latch	170 mm (6.7 in.) including latch
Weight	0.17 kg (0.37 lbs)			
Environment and certificat	tion			
RoHS compliance	EN 50581:2012			
WEEE compliance	DIRECTIVE/2012/19/EU			

WEEE compliance DIRECTIVE/2012/19/EU

¹ For detailed information on each module, please visit: 800xahardwareselector.com









Specific feature <sup>1</sup>	TU814V1	TU818	TU819	TU830V1
General info				
Article number	3BSE013233R1	3BSE069209R1	3BSE068891R1	3BSE013234R1
Туре	Compact	'		Extended
Connection	Crimp Snap-in connector	Terminal block	25 pin D-sub	Terminal block
Channels	16	32		16
Voltage	50 V	'		
Mounting	Both directions			
Mounting detail	Horizontal 55 °C (131 °F) Vertical 40 °C (104 °F)	155 °C (131 °F)		
Use with I/O	Al810, Al815, Al820, Al830, Al835A, Al835, Al845, AO810, AO810V2, AO815, AO820, AO845, AO845A, Dl810, Dl811, Dl814, Dl830, Dl831, Dl840, Dl880, Dl885, DO810, DO814, DO815, DO840, DO880, DP820 and DP840	AI810, AI815, AI835A, AI843, AI845, AI880A, DI810, DI811, DI818, DI830, DI831, DI840, DI880, DI885, DO818, DP840	DI818 and DO818	Al810, Al815, Al820, Al830, Al830A, Al835, Al835A, Al843, Al845, AO810, AO810V2, AO815, AO820, AO845, AO845A, Dl810, Dl811, Dl814, Dl830, Dl831, Dl840, Dl880, Dl885, DO810, DO814, DO815, DO840, DO880, DP820 and DP840
Process connections	30 up to 16 I/O channels 2 x 2 Process power 2 x 5 Process power (0 V)	40 pole screw terminal	Two D-sub connectors 25 pin (male) up to 32 I/O signals	56
Single/redundant I/O	Single			
Dimensions	'	'		
Width	64 mm (2.52 in.) including connector, 58.5 mm (2.3 in.) edge to edge installed			126 mm (5 in.) including connector, 120.5 mm (4.74 in.) edge to edge installed
Depth	64 mm (2.52 in.), including term	64 mm (2.52 in.), including terminals		
Height	170 mm (6.7 in.) including latch	170 mm (6.7 in.) including latch		
Weight	0.17 kg (0.37 lbs)			0.28 kg (0.6 lbs)
Environment and certificat	tion			<u> </u>
RoHS compliance	EN 50581:2012			
WEEE compliance	DIRECTIVE/2012/19/EU			

 $<sup>^{\</sup>mathrm{1}}$  For detailed information on each module, please visit: 800xahardwareselector.com









Specific feature <sup>1</sup>	TU831V1	TU833	TU834	TU835V1	
General info	•			•	
Article number	3BSE013235R1	3BSE038726R1	3BSE040364R1	3BSE013236R1	
Туре	Extended				
Connection	Terminal block	Crimp Snap-in connector	Terminal block		
Channels	8	16	8		
Voltage	250 V	50 V			
Mounting	Both directions	<u>'</u>			
Mounting detail	55 °C (131 °F)				
Use with I/O	DI820, DI821, DO820, and DO821	Al810, Al815, Al820, Al830, Al830A, Al835, Al835A, Al843, Al845, AO810, AO810V2, AO815, AO820, AO845, AO845A, Dl810, Dl811, Dl814, Dl830, Dl831, Dl840, Dl880, Dl885, DO810, DO814, DO815, DO840, DO880, DP820 and DP840	AI880 and AI880A	Al810, Al815 and Al845	
Process connections	16 up to 8 I/O channels (2 terminals per channel)	56 up to 16 I/O channels (2 terminals per channel) 4 Process power 6.3 A 10 x 2 Process power (0 V)	40 up to 8 I/O channels (2 terminals per channel) 4 Process power 20 Process power (0 V)	16 up to 8 I/O channels (2 terminals per channel) 4 Process power 4 Process power (0V)	
Single/redundant I/O	Single	Single			
Dimensions	·				
Width	126 mm (5 in.) including connector, 120.5 mm (4.74 in.) edge to edge installed	126 mm (5 in.) including connector, 120.5 mm (4.74 in.) edge to edge installed	126 mm (5.0 in.) including connector, 120.5 mm (4.74 in.) edge to edge installed	126 mm (5 in.) including connector, 120.5 mm (4.74 in.) edge to edge installed	
Depth	64 mm (2.52 in.) including terminals			<u>'</u>	
Height	110 mm (4.3 in.)	105 mm (4.1 in.)	110 mm (4.3 in.) including locking device	110 mm (4.3 in.)	
Weight	0.22 kg (0.48 lbs)	0.28 kg (0.6 lbs)		0.26 kg (0.57 lbs)	
Environment and certificat	tion				
RoHS compliance	EN 50581:2012				
WEEE compliance	DIRECTIVE/2012/19/EU				

<sup>&</sup>lt;sup>1</sup> For detailed information on each module, please visit: **800xahardwareselector.com** 









Specific feature <sup>1</sup>	TU836V1	TU837V1	TU838	TU839
General info	:	•		
Article number	3BSE013237R1	3BSE013238R1	3BSE008572R1	3BSE046966R1
Туре	Extended	<u> </u>		<u> </u>
Connection	Terminal block			
Channels	8		16	8
Voltage	250 V		50 V	250 V
Mounting	Both directions			<u> </u>
Mounting detail	55 °C (131 °F)			
Use with I/O	DO820, and DO821	DO820, and DO821		DI820, DI821and DI825
Process connections	16 up to 8 I/O channels (2 terminals per channel) 4 Process power 4 Process power (0V)	28 up to 8 I/O channels (2 terminals per channel) 2 x 6 power common terminals	40 up to 16 I/O channels 8 fused sensor power outlets 4 Process power 12 Process power (0 V)	28 up to 8 I/O channels (2 terminals per channel) 2x6 Process Power terminals 0.2 A
Single/redundant I/O	Single			
Dimensions				
Width	126 mm (5 in.) including connector, 120.5 mm (4.74 in.) edge to edge installed connector, 120.5 mm (4.74 in.) edge to edge installed edge to edge installed.			connector, 120.5 mm (4.74 in.)
Depth	64 mm (2.52 in.) including te	64 mm (2.52 in.) including terminals		
Height	110 mm (4.3 in.)	110 mm (4.3 in.)		
Weight	0.26 kg (0.57 lbs) 0.28 kg (0.6 lbs)			0.28 kg (0.6 lbs)
Environment and certificati	ion			
RoHS compliance	EN 50581:2012			
WEEE compliance	DIRECTIVE/2012/19/EU			

 $<sup>^{1}</sup>$  For detailed information on each module, please visit: **800xahardwareselector.com** 









Specific feature <sup>1</sup>	TU842	TU843	TU844	TU845	
General info	·	•	•	•	
Article number	3BSE020850R1	3BSE021443R1	3BSE021445R1	3BSE021447R1	
Туре	Redundant	Redundant			
Connection	Terminal block				
Channels	16	16 8			
Voltage	50 V				
Mounting	Horizontal	Vertical	Horizontal	Vertical	
Mounting detail	55 º (131 °F)	55 º (131 °F)			
Use with I/O	Al843, AO845, AO845A, Dl840, DP840	DI880, DO840, DO880 and	Al845, Al880, Al880A and DP840		
Process connections	56 up to 16 I/O channels (2 terminals per channel), 4 Process power, 20 Process power (0 V)	56 up to 16 I/O channels (2 terminals per channel) 4 Process power 20 Process power (0 V)	40 up to 8 I/O channels (2 terminals per channel) 4 Process power 20 Process power (0 V)		
Single/redundant I/O	Redundant				
Dimensions					
Width	131 mm (5.16") including connector, 124 mm (4.88") edge to edge installed	dge 131 mm (5.16") including connector, 124 mm (4.88") edge to edge installed		je to edge installed	
Depth	64 mm (2.52") including termin	64 mm (2.52") including terminals			
Height	186.5 mm (7.34") including lock	186.5 mm (7.34") including locking device			
Weight	0.6 kg (1.3 lbs.)	0.6 kg (1.3 lbs.)			
Environment and certifica	tion				
RoHS compliance	EN 50581:2012	EN 50581:2012			
WEEE compliance	DIRECTIVE/2012/19/EU	DIRECTIVE/2012/19/EU			

 $<sup>^{\</sup>rm 1}$  For detailed information on each module, please visit:  $\bf 800xahardwareselector.com$ 









Specific feature <sup>1</sup>	TU850	TU851	TU852	TU854	
General info	•	•			
Article number	3BSE050930R1	3BSE068782R1	3BSE069964R1	3BSE069966R1	
Туре	Extended	'	Redundant		
Connection	Terminal block		25 pin D-sub		
Channels	16		·		
Voltage	50 V	250 V	50 V		
Mounting	Both directions	·	Horizontal		
Mounting detail	55 º (131 °F)		55 °C (131 °F)		
Use with I/O	Al810, Dl810, Dl811,Dl830, Dl831	DI820, DI821, DI825, DI828, DO820, DO821, and DO828	Al843, AO845A, Dl840, Dl880, DO840, DO880 and DP840	AI845, AI880A and DP840	
Process connections	40 up to 16 I/O channels 16 current limited sensor/transmitter power outlets D-sub connectors 25 pin (male)	32 up to 16 I/O channels	16 up to 16 I/O channels (2 terminals per channel), Two D-sub connectors 25 pin (male)	up to 8 I/O channels (2 terminals per channel) D-sub connector 25 pin (male)	
Single/redundant I/O	Single	Single			
Dimensions					
Width	126 mm (5 in.) including conn edge installed	126 mm (5 in.) including connector, 120.5 mm (4.74 in.) edge to edge installed		131 mm (5.16 in.) including connector, 124 mm (4.88 in.) edge to edge installed	
Depth	64 mm (2.52 in.) including ter	64 mm (2.52 in.) including terminals			
Height	110 mm (4.3 in.)	110 mm (4.3 in.)		186.5 mm (7.34 in.) including locking device	
Weight	0.26 kg (0.57 lbs)	0.22 kg (0.48 lbs)	0.55 kg (1.2 lbs)	260 g (9.17 oz)	
Environment and certificat	tion				
RoHS compliance	EN 50581:2012				
WEEE compliance	DIRECTIVE/2012/19/EU				

 $<sup>^{\</sup>rm 1}$  For detailed information on each module, please visit:  $\bf 800xahardwareselector.com$ 





Specific feature <sup>1</sup>	TU890	TU891		
General info	·			
Article number	3BSC690075R1	3BSC840157R1		
Туре	Compact	·		
Connection	Terminal block			
Channels	8			
Voltage	24V			
Mounting	Horizontal			
Mounting detail	55 º (131 °F)	55 °C (131 °F)		
Use with I/O	Al890, Al893, Al895, AO890, AO8	95, DI890, DO890		
Process connections	27 blue terminals	27 gray terminals		
Single/redundant I/O	Single			
Dimensions				
Width	64 mm (1.77 in.) including connec	ctor, 58.5 mm (2.3 in.) edge to edge installed		
Depth	58 mm (2.28 in.), 106 mm (4.2 in.)	58 mm (2.28 in.), 106 mm (4.2 in.) including terminals		
Height	194 mm (7.6 in.) including latch	194 mm (7.6 in.) including latch		
Weight	0.17 kg (0.37 lbs.)	0.17 kg (0.37 lbs)		
Environment and certification				
RoHS compliance	EN 50581:2012	EN 50581:2012		
WEEE compliance	DIRECTIVE/2012/19/EU	DIRECTIVE/2012/19/EU		

<sup>&</sup>lt;sup>1</sup> For detailed information on each module, please visit: **800xahardwareselector.com** 



solutions.abb/800xA solutions.abb/controlsystems

800xA is a registered or pending trademark of ABB. All rights to other trademarks reside with their respective owners.

We reserve the right to make technical changes to the products or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB does not assume any responsibility for any errors or incomplete information in this document.

We reserve all rights to this document and the items and images it contains. The reproduction, disclosure to third parties or the use of the content of this document – including parts thereof – are prohibited without ABB's prior written permission.

Copyright© 2021 ABB All rights reserved