

TB820V2

ABB Ability™ System 800xA® hardware selector



S800 I/O is a comprehensive, distributed and modular process I/O system that communicates with parent controllers and PLCs over industry-standard field buses. The TB820V2 ModuleBus Modem is a fiber optic interface to the ModuleBus. The ModuleBus Modem has an electric and an optical interface which are logically the same bus. A maximum of 12 I/O modules can be connected to the electrical ModuleBus and up to seven clusters can be connected to the fiber optic ModuleBus. The fiber optic interface is intended for local distribution of I/O clusters and where more than 12 I/O modules are required in an I/O station.

Features and benefits

- 2 fiber optic ports to optical ModuleBus
- ModuleBus (electrical) to the I/O Modules
- Supervisory functions of I/O ModuleBus and power supply
- Isolated power supply to I/O modules
- TB820/TB820V2 has a rotary switch that selects its cluster number, 1 to 7, on the optical ModuleBus

General info	
Article number	3BSE013208R1
Communication protocol	Modulebus
Master or slave	Slave
Line redundancy	No
Module redundancy	No
Hot Swap	No
Used together with HI Controller	No

Detailed data	
24 V consumption typ.	100 mA

Environment and certification

CE-marking	Yes
Electrical Safety	EN 61010-1, UL 61010-1, EN 61010-2-201, UL 61010-2-201
Hazardous location	C1 Div 2 cULus, C1 Zone 2 cULus, ATEX Zone 2
Marine certificates	ABS, BV, DNV-GL, LR
Temperature, Operating	0 to +55 °C (+32 to +131 °F), approvals are issued for +5 to +55 °C
Temperature, Storage	-40 to +70 °C (-40 to +158 °F)
Pollution degree	Degree 2, IEC 60664-1
Corrosion protection	ISA-S71.04: G3
Relative humidity	5 to 95 %, non-condensing
Max ambient temperature	55 °C (131 °F), for vertical mounting 40 °C (104 °F)
Protection class	IP20 according to EN60529, IEC 529
RoHS compliance	DIRECTIVE/2011/65/EU (EN 50581:2012)
WEEE compliance	DIRECTIVE/2012/19/EU

Dimensions

Width	58 mm (2.39 in.)
Height	170 mm (6.7 in.) including latch
Depth	122 mm (4.8 in.)
Weight	0.3 kg (0.66 lbs)

solutions.abb/800xA
solutions.abb/controlsystems

800xA and Symphony Plus is a registered 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© 2025 ABB All rights reserved