

# TB842

## ABB Ability™ System 800xA® hardware selector

□

TB842 ModuleBus Optical Port is a communication interface between the CI801 or CI840/CI840A FCI and the TB820/TB820V2/TB840/TB840A ModuleBus modem of an I/O cluster or ABB drives units via the Optical ModuleBus. TB842 connects to CI801 via TB806 and to CI840/CI840A via TU847 and TB806 for single I/O or via TU846 and TB846 for redundant I/O.

TB842 can be used in both a simplex optical configuration as well as in a duplex optical configuration. In a simplex configuration, the optical ModuleBus nodes are connected in a ring. In a duplex configuration, the optical ModuleBus nodes are connected in a row. TB842 has a connector for fiber optic connections and a connection to the communication interface module.

The module is equipped with a Transmitter/Receiver for up to 10 Mbit/s. Both plastic and HCS (Hard Clad Silica) optic fiber with connectors (Agilent's, former Hewlett-Packard, Versatile Link) can be used with the TB842. A Modulebus must have the same type of transmitter/receiver on each node.

### Features and benefits

- 1 fiber optic port for the Optical ModuleBus expansion
- Connection to CI801 and CI840/CI840A

# More info

Opto Cable for TB842 according to HP.

Plastic Optical Fiber (POF) (TK811V... or TK812V...) up to 15 meters.

- Extra low loss attenuation
- Simplex or duplex cable
- Latching simplex or duplex connector.
- Cable attenuation maximum 4 dB Hard Clad Silica (HCS) fiber up to 200 meters.
- Riser or plenum
- Simplex or duplex cable
- Latching simplex or duplex connector
- Cable attenuation maximum 2 dB

General info	
Article number	3BSE022464R1
Communication protocol	Modulebus
Master or slave	N/A
Line redundancy	Yes
Module redundancy	Yes
Hot Swap	Yes
Used together with HI Controller	No
Mounting	Vertical or Horizontal

Detailed data	
Connector	Agilent's, former Hewlett-Packard, Versatile Link
24 V consumption typ.	20 mA
ModuleBus current distribution	Fiber optic interface, one transmit and one receive connection for max. 10 Mbit/s. Wavelength 650 nm
Power dissipation	0.5 W

Environment and certification	
CE- marking	Yes
Electrical Safety	EN 61010-1, UL 61010-1, EN 61010-2-201, UL 61010-2-201
Hazardous location	cULus Hazardous Location Class1 Zone 2, 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)
Relative humidity	5 to 95 %, non-condensing
Max ambient temperature	55 °C (131 °F), for vertical mounting 40 °C (104 °F)
Equipment class	Class I according to IEC 60536; (earth protected)
Ingress protection	IP20 according to IEC 60529
RoHS compliance	DIRECTIVE/2011/65/EU (EN 50581:2012)
WEEE compliance	DIRECTIVE/2012/19/EU

Dimensions	
Width	17.6 mm (0.69")
Height	56.7 mm (2.23")
Depth	42.3 mm (1.67")
Weight	90 g (0.20 lbs.)

---

**[solutions.abb/800xA](https://solutions.abb/800xA)**  
**[solutions.abb/controlsystems](https://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