

CI845

Compact Product Suite hardware selector



Select I/O is an Ethernet networked, single channel granular I/O system for the ABB Ability™ System 800xA automation platform. Select I/O helps decouple project tasks, minimizes the impact of late changes, and supports standardization of I/O cabinetry ensuring automation projects are delivered on time and under budget. A Signal Conditioning Module (SCM) performs the necessary signal conditioning and powering of the connected field device for one I/O channel.

The CI845 Ethernet Fieldbus Communication Interface Module (FCI) is responsible for communications of S800 I/O or Select I/O to the AC 800M controllers. For redundant configurations, two CI845s are required to be installed in the TU860 or TU865 Ethernet Field Communications Interface MTUs.

Features and benefits

- Can be used as single or redundant
- Supports both Select I/O and S800 on Ethernet
 - Supports 12 single or 12 redundant S800 I/O modules
 - Supports up to 192 Select I/O channels
- Possible to use with single or redundant 24V power supplies
- Built-in power voting
- Built-in supervision of power supply A and power supply B
- Built-in cabinet temperature measurement
- Built-in diagnostics
- Soft marshalling
- Optimized engineering
- HART v7, HART pass-through
- HART variables to the application (Select I/O)
- Sequence of Events
- Supports hot swap
- Can be used in hazardous area
- Mechanical locking slider which turns off power before removal
- Mechanical keying
- LED indicators

General info

Article number	3BSE075853R1
Communication protocol	Ethernet
Type	Ethernet FCI Module
Master or slave	Slave
HART	Yes
SOE	Yes
Redundancy	Yes
Hot swap	Yes
High integrity	N/A
Intrinsic safety	N/A
Mechanics	Select I/O

Detailed data

Isolation	Galvanic isolation between power supply and I/O modules
Diagnostics	Internal hardware supervision Communication supervision Internal power supervision Supervision of incoming system power A and B Cabinet temperature supervision
Power dissipation	5 W
Installation in Hazardous Area/Locations	Yes/Yes
Input voltage range	19.2 ... 30 V

Environment and certification

Temperature, Operating	-40 °C (-40 °F) to +70 °C (158 °F)
Temperature, Storage	-40 °C (-40 °F) to +85 °C (185 °F)
Pollution degree	Pollution Degree 2 acc. to IEC 60664-1
Relative humidity	5 to 95 %, non-condensation
Altitude	-1000 to 5000 m (restrictions apply)
Mechanical operating conditions	IEC 61131-2
EMC	IEC/EN 61000-6-4, IEC/EN 61000-6-2
Overtoltage categories	Category II acc. to IEC 60664-1
Protection class	IP20 acc. to IEC 60529
CE-marking	Yes
UKCA	Yes
Electrical Safety	IEC/EN 61010-1 UL 61010-1 CSA-C22.2 No. 61010-1-12 IEC/EN 61010-2-201 UL 61010-2-201 CSA C22.2 No. 61010-2-201
Marine certification	DNV, ABS
Corrosive atmosphere	G3
RoHS compliance	EU RoHS, UAE RoHS, CN RoHS
WEEE compliance	EU
Hazardous Area ATEX	II 3G Ex nA IIC T4 Gc II 3G Ex ec IIC T4 Gc II 3G Ex ic nA IIC T4 Gc II 3G Ex ic ec IIC T4 Gc
Hazardous Area IECEx	Available on IPA: II 3G Ex nA IIC T4 Gc II 3G Ex ec IIC T4 Gc II 3G Ex ic nA IIC T4 Gc II 3G Ex ic ec IIC T4 Gc
Hazardous Location US/CAN	cULus CL I, ZN 2, AEx ec IIC T4 Gc, Ex ec IIC T4 Gc X CL I, ZN 2, AEx nA IIC T4 Gc, Ex nA IIC T4 Gc X CL I, DIV 2, Groups A-D T4
Hazardous Area CCC	Ex ec IIC T4 Gc Ex ec ic IIC T4 Gc

Dimensions

Width	30 mm
Depth	121.7 mm
Height	135 mm
Weight (including base)	225 g

solutions.abb/compactproductsuite
solutions.abb/controlsystems

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© 2026 ABB All rights reserved