

DATA SHEET

## **CI845**

## ABB Ability™ System 800xA® 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 \$800 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)
- Sequense 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           |                     |  |
|------------------------|---------------------|--|
| General Info           |                     |  |
| Article number         | 3BSE075853R1        |  |
| Communication protocol | Ethernet            |  |
| Туре                   | 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 Committee and a section of the committee of the commi | IEC/EN 61000-6-4, IEC/EN 61000-6-2   |
| Overvoltage 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<br>UL 61010-1<br>CSA-C22.2 No. 61010-1-12<br>IEC/EN 61010-2-201<br>UL 61010-2-201<br>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 nA 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<br>Ex ec ic IIC T4 Gc  |

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



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