

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 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 |
| 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 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 |

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