

TC811

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.

TC811 is an Ethernet Adapter for fiber optic media with a built-in 2-port switch. Hosts two LC ports. For redundant configuration two Fieldbus Communication Interfaces CI845, two Ethernet Adapters TC811, and one TU860 or one TU865 are needed.

Features and benefits

- Can be used as single or redundant
- Supports both Select I/O and S800 on Ethernet
- Hosts two LC ports
- Built-in switch
- Built-in diagnostics
- 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 | 3BSE078714R1 |
| Communication protocol | Ethernet |
| Type | Ethernet Adapter for fiber optic media |
| HART | N/A |
| SOE | N/A |
| Redundancy | Yes |
| Hot swap | Yes |
| High integrity | N/A |
| Intrinsic safety | N/A |
| Mechanics | Select I/O |
| Type of external output | 100 BASE-FX with LC connector |
| Number of external ports | 2 |
| Type of connecting cable | 9/125 µm single mode fiber (1310 nm nominal wavelength) |
| Maximum length of cable | 27.5 km |

| Detailed data | |
|--|--|
| Isolation | Galvanic isolation between Ethernet/power supply and I/O modules |
| Power dissipation | 2 W |
| 24 V consumption typ. | 80 mA |
| Installation in Hazardous Area/Locations | Yes/Yes (on IPA) |

| Environment and certification | |
|---------------------------------|---|
| Temperature, Operating | -40 °C (-40 °F) to +65 °C (149 °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 ec IIC T4 Gc II 3G Ex ic ec IIC T4 Gc |
| Hazardous Area IECEx | Available on IPA: II 3G Ex ec IIC T4 Gc II 3G Ex ic ec IIC T4 Gc |
| Hazardous Location US/CAN | Available on IPA: cULus CL I, ZN 2, AEx ec IIC T4 Gc, Ex ec 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 | 24.5 mm |
| Depth | 101.3 mm |
| Height | 110 mm |
| Weight (including base) | 161 g |

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