

TU842

ABB Ability™ System 800xA® hardware selector



The TU842 MTU can have up to 16 I/O channels and 2+2 process voltage connections. Each channel has two I/O connections and one ZP connection. The maximum rated voltage is 50 V and maximum rated current is 3 A per channel.

The MTU distributes the two ModuleBuses to each I/O module and to the next MTU. It also generates the correct address to the I/O modules by shifting the outgoing position signals to the next MTU.

The MTU can be mounted on a standard DIN rail. It has a mechanical latch that locks the MTU to the DIN rail.

Four mechanical keys, two for each I/O module, are used to configure the MTU for different types of I/O modules. This is only a mechanical configuration and it does not affect the functionality of the MTU or the I/O module. Each key has six positions, which gives a total number of 36 different configurations.

Features and benefits

- Complete installation of I/O modules using 3-wire connections and field power distribution.
- Up to 16 channels of field signals and process power connections.
- Connections to two ModuleBuses and I/O modules.
- Mechanical keying prevents insertion of the wrong I/O module.
- Latching device to DIN rail for grounding.
- DIN rail mounting.

| General info | |
|----------------------|---|
| Article number | 3BSE020850R1 |
| Type | Redundant |
| Connection | Terminal block |
| Channels | 16 |
| Voltage | 50 V |
| Mounting | Horizontal |
| Mounting detail | 55 ° (131 °F) |
| Use with I/O | AI843, AO845, AO845A, DI840, DI880, DO840, DO880 and DP840 |
| Process connections | 56 up to 16 I/O channels (2 terminals per channel), 4 Process power, 20 Process power (0 V) |
| Single/redundant I/O | Redundant |

| Detailed data | |
|------------------------------------|---|
| Maximum current per I/O channel | 3 A |
| Maximum current process connection | 10 A |
| Acceptable wire sizes | Solid: 0.2 - 4 mm ² Stranded: 0.2 - 2.5 mm ² , 24 - 12 AWG Recommended torque: 0.5 - 0.6 Nm Stripping length: 7 mm |
| Dielectric test voltage | 500 V a.c. |

| Environment and certification | |
|--------------------------------------|---|
| CE mark | Yes |
| Electrical safety | EN 61010-1, UL 61010-1, EN 61010-2-201, UL 61010-2-201 |
| Hazardous Location | C1 Div 2 cULus, C1 Zone 2 cULus, ATEX Zone 2 |
| Marine certification | 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) |
| Pollution degree | Degree 2, IEC 60664-1 |
| Corrosion protection | ISA-S71.04: G3 |
| Relative humidity | 5 to 95 %, non-condensing |
| Max ambient temperature | 55 °C (131 °F) |
| Protection class | IP20 according to IEC 60529 |
| Mechanical operating conditions | IEC/EN 61131-2 |
| EMC | EN 61000-6-4, EN 61000-6-2 |
| Overvoltage categories | IEC/EN 60664-1, EN 50178 |
| Equipment class | Class I according to IEC 61140; (earth protected) |
| RoHS compliance | EN 50581:2012 |
| WEEE compliance | DIRECTIVE/2012/19/EU |

| Dimensions | |
|-------------------|--|
| Width | 131 mm (5.16") including connector, 124 mm (4.88") edge to edge installed |
| Depth | 64 mm (2.52") including terminals |
| Height | 186.5 mm (7.34") including locking device |
| Weight | 0.6 kg (1.3 lbs.) |

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