

TU813

ABB Ability™ System 800xA® hardware selector



The TU813 is a 8 channel 250 V compact module termination unit (MTU) for the S800 I/O. The TU813 has three rows of crimp snap-in connectors for field signals and process power connections.

The MTU is a passive unit used for connection of the field wiring to the I/O modules. It also contains a part of the ModuleBus. The maximum rated voltage is 250 V and maximum rated current is 3 A per channel. The MTU distributes the ModuleBus to the I/O module and to the next MTU. It also generates the correct address to the I/O module by shifting the outgoing position signals to the next MTU.

Two mechanical keys 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

- Compact installation of I/O modules.
- Up to 8 isolated channels of field signal connections with crimped snap-in connectors.
- Connections to ModuleBus 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 | 3BSE036714R1 |
| Type | Compact |
| Connection | Crimp Snap-in connector |
| Channels | 8 |
| Voltage | 250 V |
| Mounting | Both directions |
| Mounting detail | Horizontal 55 °C (131 °F) Vertical 40 °C (104 °F) |
| Use with I/O | DI820, DI821, DI825, DO820, DO821 and AI825 |
| Process connections | 16 |
| Single/redundant I/O | Single |

| Detailed data | |
|---------------------------------|--|
| Maximum current per I/O channel | 3 A |
| Acceptable wire sizes | Stranded: 0.2 - 0.5 mm², 24 - 20 AWG 0.5 - 1.0 mm², 20 - 18 AWG 1.5 - 2.5 mm², 16 - 14 AWG |

| Environment and certification | |
|---------------------------------|---|
| CE mark | Yes |
| Electrical safety | EN 61010-1, UL 61010-1, EN 61010-2-201, UL 61010-2-201 |
| Hazardous Location | ATEX Zone 2 |
| Marine certification | - |
| 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), for vertical mounting 40 °C (104 °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 | 64 mm (2.52 in.) including connector, 58.5 mm (2.3 in.) edge to edge installed |
| Depth | 64 mm (2.52 in.), including terminals |
| Height | 170 mm (6.7 in.) including latch |
| Weight | 0.17 kg (0.37 lbs) |

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