

# TU845

## Compact Product Suite hardware selector



The TU845 MTU can have up to 8 I/O channels and 2+2 process voltage connections. Each channel has two I/O connections and one ZP connection. Input signals are connected via individual shunt sticks, TY801. The shunt stick is used to choose between voltage and current input. The maximum rated voltage is 50 V and maximum rated current is 2 A per channel.

The MTU distributes the two ModuleBuses, one 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. 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 2-wire connections and field power distribution.
- Up to 8 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       | 3BSE021447R1   |
| Type                 | Redundant  |
| Connection           | Terminal block   |
| Channels             | 8  |
| Voltage              | 50 V   |
| Mounting             | Vertical   |
| Mounting detail      | 55 ° (131 °F)  |
| Use with I/O         | AI845, AI880, AI880A and DP840   |
| Process connections  | 40 up to 8 I/O channels (2 terminals per channel)<br>4 Process power<br>20 Process power (0 V) |
| Single/redundant I/O | Redundant  |

**Detailed data**

|                                    |   |
|------------------------------------|---|
| Maximum current per I/O channel    | 2 A   |
| Maximum current process connection | 5 A   |
| Acceptable wire sizes              | Solid: 0.2 - 4 mm <sup>2</sup><br>Stranded: 0.2 - 2.5 mm <sup>2</sup> , 24 - 12 AWG<br>Recommended torque: 0.5 - 0.6 Nm<br>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            | -   |
| 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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