

# TU830V1

## Freelance hardware selector



The TU830V1 MTU can have up to 16 I/O channels and two process voltage connections. Each channel has two I/O connections and one ZP connection. 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 process voltage can be connected to two individually isolated groups. Each group has a 6.3 A fuse. The maximum rated voltage is 50 V and maximum rated current is 2 A per channel. The MTU distributes the ModuleBus to the I/O module end 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.

## Features and benefits

- Complete installation of I/O modules using 3-wire connections, fuses and field power distribution.
- Up to 16 channels of field signals and process power connections.
- 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       | 3BSE013234R1   |
| Type                 | Extended   |
| Connection           | Terminal block   |
| Channels             | 16   |
| Voltage              | 50 V   |
| Mounting             | Both directions  |
| Mounting detail      | 55 °C (131 °F)   |
| Use with I/O         | AI810, AI815, AI820, AI830, AI830A, AI835, AI835A, AI843, AI845, AO810, AO810V2, AO815, AO820, AO845, AO845A, DI810, DI811, DI814, DI818, DI830, DI831, DI840, DI880, DI885, DO810, DO814, DO815, DO818, DO840, DO880, DP820 and DP840 |
| Process connections  | 56   |
| Single/redundant I/O | Single   |

**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            | 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  | 126 mm (5 in.) including connector, 120.5 mm (4.74 in.) edge to edge installed |
| Depth  | 64 mm (2.52 in.) including terminals   |
| Height | 110 mm (4.3 in.)   |
| Weight | 0.28 kg (0.6 lbs)  |

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