

# TU810V1

## Freelance hardware selector



The TU810/TU810V1 is a 16 channel 50 V compact module termination unit (MTU) for the S800 I/O. 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 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 using one-wire connections.
- 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       | 3BSE013230R1   |
| Type                 | Compact  |
| Connection           | Terminal block   |
| Channels             | 16   |
| Voltage              | 50 V   |
| Mounting             | Both directions  |
| Mounting detail      | Horizontal 55 °C (131 °F)<br>Vertical 40 °C (104 °F)   |
| Use with I/O         | AI810, AI815, AI820, AI830, AI830A, AI835, AI835A, AI845, AO810, AO810V2, AO815, AO820, AO845, AO845A, DI810, DI811, DI814, DI830, DI831, DI840, DI880, DI885, DO810, DO814, DO815, DO840, DO880, DP820, DP840 |
| Process connections  | 2 x 2 Process power, 5 x 2 Process power (0 V)   |
| Single/redundant I/O | Single   |

### Detailed data

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